



City Commission Regular Meeting

Agenda

January 24, 2024 @ 3:30 PM

City Hall Commission Chambers
401 S. Park Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/meetings/ and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

- 1. Meeting Called to Order**
- 2. Invocation - City Manager Randy Knight**
- 3. Pledge of Allegiance**
- 4. Approval of Agenda**
- 5. Mayor's Report**
- 6. City Manager's Report**
- 7. City Attorney's Report**
- 8. Non-Action Items**
- 9. Public Comments | 5 p.m. or soon thereafter**

(If the meeting ends earlier than 5 p.m., public comments will be at the end of the meeting. Three minutes are allowed for each speaker.)

10. Consent Agenda

- a. Approve the minutes of the regular meeting, January 10, 2024 1 minute
- b. Approve the following piggyback contracts: 1 minute
 1. Stuart C. Irby Co. – OUC Contract #4670-OQ – Padmount Switchgears; for goods and services during the term of the Agreement through January 1, 2025; Amount: \$650,000
 2. Global Rental Co., Inc. – Sourcewell Contract #062320-ALT – Rental Digger Derricks, Bucket Trucks, Etc.; for vehicle purchases during the term of the Agreement through August 27, 2024; Amount: \$190,000
 3. Nidy Sports Construction Company, Inc. - NCPA/OMNIA Partners Contract #08-42 - Athletic Surfacing and Asphalt Maintenance; for services on an as-needed basis during the term of the Agreement through April 30, 2026; Amount: \$300,000
 4. Selectron Technologies, Inc. - GSA Contract #GS-35F-0315X - Selectron Hosting Software; for goods and services on an as-needed basis during the term of the Agreement through April 5, 2026; Amount: \$84,965.97
- c. Approve the following contracts: 1 minute
 1. RFQ31-22 – KZF Design LLC – Professional Architectural Services –

- Amendment 1; for services on an as-needed basis during the term of the Agreement through January 2, 2025; Amount: \$200,000
2. IFB13-19 - Yang, Inc. - Electrician Services; for services on an as-needed basis during the term of the Agreement through June 25, 2024; Amount: \$200,000

11. Action Items Requiring Discussion

- a. Lake Killarney Advisory Board Budget Request for Sediment/Dredging Line-Item in the annual CIP Budget 10 minutes

12. Public Hearings: Quasi-Judicial Matters

(Public participation and comment on these matters must be in-person.)

- a. Request of Rollins College for approval to build a three-story, 80,981 square foot, Rollins Faculty & Staff housing building of 48 units via: 45 minutes
1. Comprehensive Plan text policy amendment;
 2. Comprehensive Plan future land use map and Zoning map amendments; and
 3. Conditional Use approval.

13. Public Hearings: Non Quasi-Judicial Matters

(Public participation and comment on these matters may be virtual or in-person.)

- a. Resolution 2281-24 - Amending the Sustainability Action Plan (SAP) adopting Renewable Energy Targets 10 minutes

14. City Commission Reports

15. Summary of Meeting Actions

16. Adjournment



City Commission

agenda item

item type

Consent Agenda

meeting date

January 24, 2024

prepared by

Rene Cranis, City Clerk

approved by

Randy Knight, City Manager

subject

Approve the minutes of the regular meeting, January 10, 2024

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

1. CC-min-2024-01-10 DRAFT



City Commission Regular Meeting Minutes

January 10, 2024 at 3:30 PM

City Hall Commission Chambers
401 S. Park Avenue

Present

Mayor Phil Anderson, Commissioners Sheila DeCiccio, Kris Cruzada and Todd Weaver; City Manager Randy Knight; Assistant City Manager Michelle del Valle; City Attorney Kurt Ardaman and City Clerk Rene Cranis.

Absent

Commissioner Marty Sullivan

1. Meeting Called to Order

Mayor Anderson called the meeting to order at 3:30 p.m.

2. Invocation-Pastor Weaver Blondin, Mt. Moriah Missionary Baptist Church

3. Pledge of Allegiance

4. Approval of Agenda

Motion made by Commissioner Cruzada to approve the agenda; seconded by Commissioner Weaver. Motion unanimously with a 4-0 vote. Commissioner Sullivan was absent.

5. Mayor's Report

Mayor Anderson announced the weekend events in recognition of MLK Day on Monday, including the Unity Heritage Festival in Hannibal Square Sunday and Monday with the dedication of the sculpture at Unity Corner at 9:15 a.m. on Monday.

6. City Manager's Report

a. Meeting/Work Session Schedule 2nd Quarter

Mr. Knight reviewed the quarterly schedule noting several work sessions are available for topics requested by the commission. No additional topics were requested.

Motion made by Mayor Anderson to approve the schedule, seconded by Commissioner Weaver. Motion unanimously with a 4-0 vote. Commissioner Sullivan was absent.

Mayor Anderson asked for an update on CRA expansion/extension. Mr. Knight said the report is being finalized and upon commission approval it will be sent to Orange County for approval. Mayor Anderson explained the city's intent and goal for expanding the existing CRA to include the Fairbanks Avenue area.

7. City Attorney's Report

8. Non-Action Items

9. Public Comment (Items not on the agenda.) Heard after Public Hearings.

10. Consent Agenda

- a. Approve the minutes of the regular meeting, December 13, 2023
- b. Approve the minutes of the work session, December 14, 2023.
- c. Approve the following piggyback contracts:
 1. Environmental Products Group – Sourcewell Contract #101221-VTR – Sewer Vacuum, Hydro-Excavation, & Municipal Pumping Equipment with Related Accessories & Supplies; for vehicle purchases during the term of the agreement through November 29, 2025; Amount: \$500,000
 2. Chuck Robinson Concrete & Bob Cat, Inc. - Seminole County Contract #RFP-604273-22/LNF - Aquatic Maintenance Services and Dredging; for services on an as-needed basis during the term of the agreement through May 30, 2025; Amount: \$300,000
- d. Approve the following contracts:
 1. RFQ18-18 - Power Engineers, Inc. - Electric Underground Conversion Design; for ongoing project designs and services during the term of the agreement through October 5, 2024; Amount: \$500,000

Motion made by Commissioner Weaver to approve the Consent Agenda, seconded by Commissioner DeCiccio. Mayor Anderson noted that after publication, a correction was made to the December 13th minutes under Summary of Meeting actions to clarify that staff will prepare a notice advising people who to contact when they become aware of a property available for the city to purchase a Habitat house. Commissioner Weaver noted the possibility of a partnership between the two local land trusts and Habitat. **Motion unanimously with a 4-0 vote. Commissioner Sullivan was absent.**

11. Action Items Requiring Discussion

- a. Leaf Blower Ordinance - Rebate Program

Director of Natural Resources and Sustainability Gloria Eby gave a presentation on the rebate program providing the background on the ordinance prohibiting gas-powered leaf blowers effective July 2024 and related fines for violation. She outlined educational programs and communication tools to inform residents and landscape contractors of the requirements. She explained the rebate program offers \$50 per household, applied as a rebate on the utility bill. She added that program information will be on the city's website.

Mayor Anderson suggested noting on the website that the city has already taken steps to move away from gas-powered devices. Commissioner Weaver spoke about the higher costs of equipment due to batteries and questioned whether there is any thoughts on incentivizing businesses. Staff responded to questions on enforcement,

funding and communication in utility bills, and education on the long-term cost benefits. Mrs. Eby affirmed that staff will continue to educate and disseminate information.

Motion made by Commissioner Weaver to approve the program, seconded by Commissioner DeCiccio. There were no public comments. **Motion unanimously with a 4-0 vote. Commissioner Sullivan was absent.**

b. Seven Oaks Project & Funding Allocation

Mr. Knight explained that the commission approved the Guaranteed Maximum Price (GMP) for the Seven Oaks Parks project, but the question was raised whether additional value engineering could be done to reduce the funding gap between the original and current cost estimate. He reviewed original funding and expenditures and options to eliminate portions of the project. He confirmed staff's recommendation to fund the gap: ARPA WiFi - \$220k, ARPA Potential Planning Studies - \$330k; and General Fund Contingency - \$250k and discussion followed.

Motion made by Commissioner DeCiccio to approve the existing funding allocation, seconded by Mayor Anderson. There were no public comments. **Motion unanimously with a 4-0 vote. Commissioner Sullivan was absent.**

12. Public Hearings: Quasi-Judicial Matters

a. Request of Rollins College for: Conditional Use approval to build a new 139,200 square foot Rollins Residence Hall on the campus at 1000 Holt Avenue.

City Planning Consultant Jeff Briggs reviewed the request and site plan and said this 300-bed project helps Rollins reach their goal to increase on-campus housing for students and reduce student rentals in area neighborhoods. The building height, measured from the front of buildings, allows an additional floor on buildings closer to the lake due to the grade of the property and is in compliance with zoning requirements. He reviewed the setback requirements and showed building elevations and setbacks for each floor. There is no net impact on parking since students will use the existing parking garage. Staff and the Planning and Zoning Board recommended approval with a condition that the maintenance building walls facing the street have ornamentation and that a landscape plan be approved by the City that adequately screens the view of this building and the tennis court fencing.

Commissioner Weaver referred to an e-mail from a resident asking that height restrictions be followed to preserve the charm and scale of the community. Mr. Briggs provided information on building and floor heights. He responded to questions regarding tree preservation and removal and discussion followed on building height and appearance and preference for pitched versus flat roofs.

Commissioner Weaver said he spoke with Sam Stark, Rollins VP of Communications and External Relations, about this and an upcoming faculty housing project, and asked if the college considered installing solar. Mr. Stark said he shared solar information and

deferred response to the project manager and builder. Mr. Stark read a statement in tribute to former Rollins President Rita Bornstein who passed away recently and a moment of silence was observed.

Rollins President Grant Cornwell said the purpose of this project is partly due to increased enrollment but also to provide on-campus housing for the benefit of student experience and to remove students from rentals in the surrounding area.

Becky Wilson, attorney for the applicant, said Rollins will investigate solar but cannot commit to providing solar. She responded to questions stating students will be relocated during construction and in addition to pulling students out of neighborhoods, this will also reduce traffic coming from outlying areas. Discussion followed on parking needs and solutions which will benefit the neighborhood.

There were no public comments. **Motion made by Commissioner DeCiccio to approve the request as recommended (with the condition that the maintenance building walls facing the street have architectural ornamentation and that a landscape plan be provided for approval by the City that adequately screens the view of this building and the tennis court fencing, to the satisfaction of the City), seconded by Commissioner Cruzada. Upon a roll call vote, Commissioners DeCiccio, Cruzada and Weaver and Mayor Anderson voted yes. Motion unanimously with a 4-0 vote. Commissioner Sullivan was absent.**

13. Public Hearings: Non Quasi-Judicial Matters

- a. Ordinance 3290-24 - Amending Chapter 58, "Land Development Code", Article III, "Zoning" Section 58-84 "General provisions for non-residential zoning districts", to provide definitions, submittal and reporting requirements, and other provisions for certification and implementation of development pursuant to the Live Local Act of Florida Statutes. (2nd reading)

Attorney Ardaman read the ordinance by title. Mr. Briggs noted two corrections are necessary: on Page 4, Item 20, change "gross revenue" to "gross income" and on Page 5, Subparagraph (k) change "three (3) months" to "six (6) months."

Mr. Ardaman explained that the bill sunsets in 2033 and is incorporated into the ordinance.

Commissioner Weaver suggested that the city's lobbyist contact Senator Brodeur or Representative Eskamani to propose changes to implementation and province at the state level. Mayor Anderson agreed.

Motion made by Commissioner Weaver to adopt the ordinance (with corrections noted), seconded by Commissioner Cruzada. There were no public comments. Upon a roll call vote, Commissioners DeCiccio, Cruzada and Weaver and Mayor Anderson voted yes. Motion carried unanimously with a 4-0 vote. Commissioner Sullivan was absent.

9. Public Comments | 5 p.m. or soon thereafter

Kent Sokmensuer, 940 Canton Avenue, spoke about metal panels on the sidewalks which are slippery when it rains, dangerous and unsafe and explained injuries he received when he slipped and fell. He showed photos of panels which have been painted which reduce slipping hazard and suggested the city paint the panels throughout the city. The City Manager will investigate and report back to Mr. Sokmensuer and the Commission.

14. City Commission Reports

Commissioner Cruzada -

- Asked for an update on the deteriorating wall on Aloma Avenue. Mr. Knight stated the homeowner was cited but requested additional time to address. Director of Building and Zoning Gary Hiatt said staff is working with FDOT to determine responsibility for the wall and that the homeowners have been cooperative, but it may be FDOT's responsibility.

Mayor Anderson –

- Asked for an update on the parking study in the CRA work session.
- Noted upcoming discussions on attainable and affordable housing and ownership versus rental as a result of a pending project application. Commissioner DeCiccio noted concerns from residents about architectural issues and parking.

15. Summary of Meeting Actions

- Reported on MLK events next weekend.
- Approved the Consent Agenda
- Approved leaf blower rebate program
- Approved funding for Seven Oaks Park Project
- Approved Conditional Use for Rollins residence hall.
- Adopted changes to the city code relating to Live Local Act. Staff to follow-up with lobbyist on potential amendments to the Act.
- Received report from resident about dangerous metal plates in sidewalks. Staff to investigate and report back.
- Staff to provide an update on the parking study in the CRA work session.

16. Adjournment

The meeting was adjourned at 4:51 p.m.

Mayor Phillip M. Anderson

ATTEST:

City Clerk Rene Cranis



City Commission

agenda item

item type

Consent Agenda

meeting date

January 24, 2024

prepared by**approved by****subject**

Approve the following piggyback contracts:

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None

**item type**

Consent Agenda

meeting date

January 24, 2024

prepared by

Rebecca Watt, Procurement Agent

approved by

Randy Knight, City Manager

subject

1. Stuart C. Irby Co. – OUC Contract #4670-OQ – Padmount Switchgears; for goods and services during the term of the Agreement through January 1, 2025; Amount: \$650,000
2. Global Rental Co., Inc. – Sourcewell Contract #062320-ALT – Rental Digger Derricks, Bucket Trucks, Etc.; for vehicle purchases during the term of the Agreement through August 27, 2024; Amount: \$190,000
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4. Selectron Technologies, Inc. - GSA Contract #GS-35F-0315X - Selectron Hosting Software; for goods and services on an as-needed basis during the term of the Agreement through April 5, 2026; Amount: \$84,965.97

motion | recommendation

Commission approve items as presented and authorize Mayor to execute.

background

1. The Originating Agency (OUC) issued a formal solicitation to award this contract in FY20.
2. The Cooperative Purchasing Agency (Sourcewell) issued a formal solicitation to award this contract in FY20.
3. The Cooperative Purchasing Agency (NCPA/OMNIA Partners) issued a formal solicitation to award this contract in FY23.
4. The Cooperative Purchasing Agency (GSA) issued a formal solicitation to award this contract in FY11.

strategic objectives

Fiscal Stewardship.

alternatives | other considerations

N/A

fiscal impact

Total expenditures included in approved budgets.

attachments

None



City Commission

agenda item

item type

Consent Agenda

meeting date

January 24, 2024

prepared by**approved by****subject**

Approve the following contracts:

motion | recommendation**background****strategic objectives****alternatives | other considerations****fiscal impact****attachments**

None



City Commission

agenda item

item type

Consent Agenda

meeting date

January 24, 2024

prepared by

Rebecca Watt, Procurement Agent

approved by

Randy Knight, City Manager

subject

1. RFQ31-22 – KZF Design LLC – Professional Architectural Services – Amendment 1; for services on an as-needed basis during the term of the Agreement through January 2, 2025; Amount: \$200,000
2. IFB13-19 - Yang, Inc. - Electrician Services; for services on an as-needed basis during the term of the Agreement through June 25, 2024; Amount: \$200,000

motion | recommendation

Commission approve item as presented and authorize Mayor to execute.

background

1. A formal solicitation was issued in FY22 and has been renewed in accordance with the original executed Agreement.
2. A formal solicitation was issued in FY19.

strategic objectives

Fiscal Stewardship.

alternatives | other considerations

N/A

fiscal impact

Total expenditures included in approved budgets.

attachments

None



City Commission

agenda item

item type

Action Items Requiring Discussion

meeting date

January 24, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Randy Knight, City Manager

subject

Lake Killarney Advisory Board Budget Request for Sediment/Dredging Line-Item in the annual CIP Budget

motion | recommendation

Staff understands the LKAB's desire to create a line item in the budget for periodic dredging and sediment removal so that the money is available when the work is needed. However, staff recommends this requested action of the Commission be considered as part of the annual budget process where it can be weighed against all other budget needs. Staff also recommends that, if we do create a separate line item for dredging and sediment removal, it includes all city lakes and waterways, not just a single lake.

background

The Lake Killarney Advisory Board on several occasions has discussed the need for dredging and sediment removal in Lake Killarney and its canal. While the outfall work was recently funded through a disaster recovery fund program, NRCS, and prioritized, the canal project has now begun utilizing stormwater funds. The Board was concerned that some sediment removal work took disaster funds instead of it coming naturally through the budget process. The Board voted unanimously to authorize its Chair to send a formal request to the City Commission to create a dedicated line item within the City Capital Improvement Plan for this activity so that money is available when the dredging and sediment removal need arises in the future.

Attached is a copy of an email from Chairperson Wall making this request.

Currently, the City budgets \$200,000 per year for stormwater/lakes major-maintenance projects. While this number includes dredging, it also includes pipe repairs, outfall repairs and other drainage improvements. Because of limitations on funding availability, the dredging and sediment removal must compete with other drainage needs at the time. Approving the request for a specific line item for dredging would give priority to dredging over other stormwater maintenance projects unless fees are increased or other projects are reduced to accommodate the dedicated allocation.

strategic objectives

alternatives | other considerations

fiscal impact

attachments

1. Lake Killarney Advisory Board Budget Request Presentation
2. LKAB Budget Request Letter
3. FY'24 CIP 5yr Plan - CC Approved 09-27-23
4. CIP 5yr Plan - Proposed



Lake Killarney Advisory Board Budget Request

Sediment Removal/Dredging Line-item

Development Background



- Chair inquires about funding avenues available for sediment removal
- Advised to make Recommendations to City Commission as an Advisory Board
- Killarney Board Approves Recommendation Letter Dec 2023

Development Background



From: Jeanne Wall <jeannewall@outlook.com>
Date: January 2, 2024 at 10:47:11 PM EST
To: mayorandcommissioners@cityofwinterpark.org
Cc: phil.anderson@cityofwinterpark.org, SGDECICCIO@gmail.com, Todd Weaver <toddcweaver99@gmail.com>, msullivan@cityofwinterpark.org, kristopher_cruzada@me.com, Randy Knight <Rknight@cityofwinterpark.org>
Subject: Lake Killarney Board Recommendation to the Commission

Dear Mayor and Commissioners:

The Lake Killarney Board had a productive year. Thank you for the opportunity to serve.

Among the issues the board discussed is recognizing the need for more frequent dredging in Lake Killarney.

It seems that the Lake Killarney canal has not been dredged in many years, possibly 10-15 years. There are navigational issues, and the board has been advised of boats being damaged with the amount of sediment that has accumulated in the canal over many years. The hurricanes compounded the issue; however, the issue was there before the hurricanes, only to a lesser degree.

With that in mind, the board voted unanimously to request that I send a letter to you offering a recommendation on a possible way to provide for funding the future dredging needs in Lake Killarney, outside of any federal or state funds available following a hurricane.

The board recommends that annual funds be specifically allocated, as a separate line item, on the five-year Capital Improvements Project Schedule (CIP) titled, "Lake Killarney Dredging and Sediment Removal". The board would suggest that an amount be set aside annually and accrue, so every five to seven years there are monies available and designated for dredging Lake Killarney.

In a meeting I attended with the City Manager and Vice Mayor, Randy Knight suggested that the way to be sure there were funds for dredging would be to add a separate line item and allow specific funds to accumulate so there are monies available when staff deems, they are needed. Staff should not be faulted for not using the funds annually as the funds are set to accumulate over five to seven years when dredging maybe needed.

With this email I would request that Mr. Knight add this item to the next Commission Agenda for review, discussion, and please let our board know of your decision in a letter from Mr. Knight.

If staff can estimate how much will be needed in five to seven years for Lake Killarney dredging, then maybe \$20,000-\$30,000 could be allocated annually and be held until such time as it is needed for dredging.

Thank you for all you do for our city and Happy New Year,

Jeanne Wall
Chairperson
Lake Killarney Board
407-312-4443

Lake Killarney Advisory Board Request

- Copy of Support Letter from Lake Killarney Advisory Board
- \$20-\$30K annual accrue and held for when necessitated

Canal Maintenance Timeline



CITY OF WINTER PARK SUMMARY OF CAPITAL PROJECTS STORMWATER CAPITAL PROJECTS FUND								
Approved by the City Commission on September 27, 2023								
Description	Estimated 5 Yr. Contribution	Current Balance	5 YR CIP CYCLE					Est. Cost
			FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	
Stormwater Improvements - Various in-house stormwater projects scheduled for 2022-23 - Shultz Avenue pipe repair, Greentree Drive, Cherokee Avenue drainage improvements, dredging various stormwater outfalls	1,000,000	77,041	200,000	200,000	200,000	200,000	200,000	Ongoing
N Lakemont Seminole County Ditch Piping - cost share with Seminole County	-	733,395						737,600 City portion
Temple Dr Drainage Improvements	750,000				250,000	250,000	250,000	1,200,000
Lake Bell Weir Outfall Improvements	-	69,223						
Canton at Knowles Drainage Improvements	250,000			250,000				250,000
Curb Implementation	250,000		50,000	50,000	50,000	50,000	50,000	500,000
CDS Unit on Fawsett Road	200,000		200,000					200,000
Corrugated Metal Pipe Replacement	600,000			200,000	200,000	200,000		600,000
Nicolet Avenue Stormwater Pond		200,000						200,000
Stirling Bridge Replacement	250,000		250,000					250,000
Lakes Nutrient Budget Studies	200,000						200,000	200,000
Lake Killarney Canal Maintenance Dredging			-	-	-	-	-	
Totals	3,500,000	1,079,659	700,000	700,000	700,000	700,000	700,000	

- 2013 Canal was Dredged under Stormwater Improvements Funds in the CIP
- 2021 Canal was Evaluated to be Dredge

Canal Maintenance Timeline



- 2022 Seawall



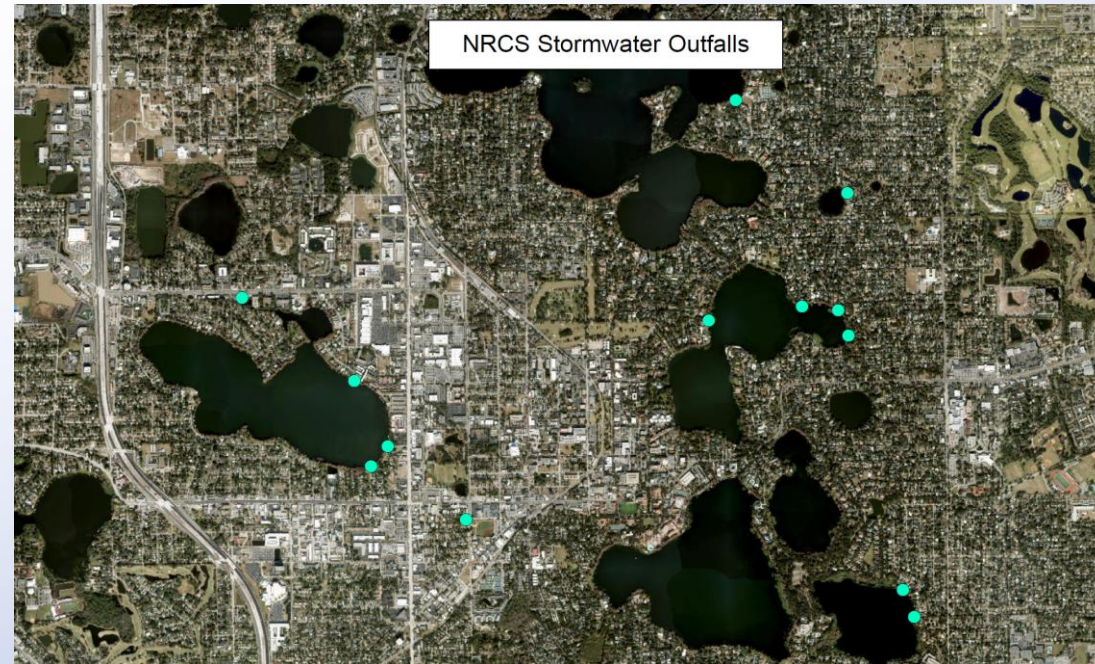
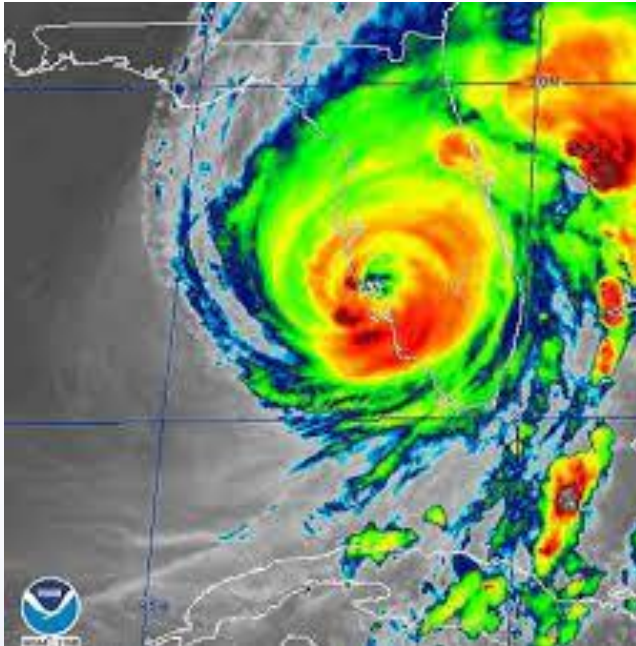
Canal Maintenance Timeline



- Permitted May 2022/Finished Aug 2022



Hurricane Impacts



- 2022 Oct- Hurricane Ian impacts lakes city-wide
- 2023 April- NRCS Recovery Funds Awarded

Canal Maintenance Timeline



- Permitting Aug 2023 – Dec 2023
- 2024 Jan Canal work Commenced

NRCS Outfall Work



- 2023 Sept- Dec Outfall work commenced

NRCS Outfall Work



NRCS Outfall Work



Current Budget & Lines



CITY OF WINTER PARK SUMMARY OF CAPITAL PROJECTS STORMWATER CAPITAL PROJECTS FUND

Approved by the City Commission on September 27, 2023

Description	Estimated 5 Yr. Contribution	Current Balance	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Est. Cost
Stormwater Improvements - Various in-house stormwater projects scheduled for 2022-23 - Shultz Avenue pipe repair, Greentree Drive, Cherokee Avenue drainage improvements, dredging various stormwater outfalls	1,000,000	77,041	200,000	200,000	200,000	200,000	200,000	Ongoing
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Canton at Knowles Drainage Improvements	250,000			250,000				250,000
Curb Implementation	250,000		50,000	50,000	50,000	50,000	50,000	500,000
CDS Unit on Fawsett Road	200,000		200,000					200,000
Corrugated Metal Pipe Replacement	600,000			200,000	200,000	200,000		600,000
Nicolet Avenue Stormwater Pond		200,000						200,000
Stirling Bridge Replacement	250,000		250,000					250,000
Lakes Nutrient Budget Studies	200,000						200,000	200,000
Totals	3,500,000	1,079,659	700,000	700,000	700,000	700,000	700,000	

- Maintenance activities typically funded under Stormwater Improvements and prioritized on an annual basis based on technical recommendations.

Staff Recommendation



Approve however based on current practice of CIP budgeting
(every 5 yr cycle) and with staff prioritizing against the needs of all lakes

CITY OF WINTER PARK SUMMARY OF CAPITAL PROJECTS STORMWATER CAPITAL PROJECTS FUND														
Approved by the City Commission on September 27, 2023														
Description	Estimated 5 Yr. Contribution	Current Balance	5 YR CIP CYCLE					Est. Cost	5 YR CIP CYCLE					Est. Cost
			FY 2024	FY 2025	FY 2026	FY 2027	FY 2028		FY 2029	FY 2030	FY2031	FY2032	FY2033	
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Curb Implementation	250,000		50,000	50,000	50,000	50,000	50,000	500,000						
CDS Unit on Fawsett Road	200,000		200,000					200,000						
Corrugated Metal Pipe Replacement	600,000			200,000	200,000	200,000		600,000						
Nicolet Avenue Stormwater Pond		200,000						200,000						
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Lakes Nutrient Budget Studies	200,000						200,000	200,000						
Lake Killarney Canal Maintenance Dredging			—	—	—	—	—		30,000	carry forward	carry forward	carry forward	carry forward	
Totals	3,500,000	1,079,659	700,000	700,000	700,000	700,000	700,000							

From: Jeanne Wall <jeannewall@outlook.com>

Date: January 2, 2024 at 10:47:11 PM EST

To: mayorandcommissioners@cityofwinterpark.org

Cc: phil.anderson@cityofwinterpark.org, SGDECICCIO@gmail.com, Todd Weaver <toddcweaver99@gmail.com>, msullivan@cityofwinterpark.org, kristopher_cruzada@me.com, Randy Knight <Rknight@cityofwinterpark.org>

Subject: Lake Killarney Board Recommendation to the Commission

Dear Mayor and Commissioners:

The Lake Killarney Board had a productive year. Thank you for the opportunity to serve.

Among the issues the board discussed is recognizing the need for more frequent dredging in Lake Killarney.

It seems that the Lake Killarney canal has not been dredged in many years, possibly 10-15 years. There are navigational issues, and the board has been advised of boats being damaged with the amount of sediment that has accumulated in the canal over many years. The hurricanes compounded the issue; however, the issue was there before the hurricanes, only to a lesser degree.

With that in mind, the board voted unanimously to request that I send a letter to you offering a recommendation on a possible way to provide for funding the future dredging needs in Lake Killarney, outside of any federal or state funds available following a hurricane.

The board recommends that annual funds be specifically allocated, as a separate line item, on the five-year Capital Improvements Project Schedule (CIP) titled, "Lake Killarney Dredging and Sediment Removal". The board would suggest that an amount be set aside annually and accrue, so every five to seven years there are monies available and designated for dredging Lake Killarney.

In a meeting I attended with the City Manager and Vice Mayor, Randy Knight suggested that the way to be sure there were funds for dredging would be to add a separate line item and allow specific funds to accumulate so there are monies available when staff deems, they are needed. Staff should not be faulted for not using the funds annually as the funds are set to accumulate over five to seven years when dredging maybe needed.

With this email I would request that Mr. Knight add this item to the next Commission Agenda for review, discussion, and please let our board know of your decision in a letter from Mr. Knight.

If staff can estimate how much will be needed in five to seven years for Lake Killarney dredging, then maybe \$20,000-\$30,000 could be allocated annually and be held until such time as it is needed for dredging.

Thank you for all you do for our city and Happy New Year,

Jeanne Wall
Chairperson
Lake Killarney Board
407-312-4443

**CITY OF WINTER PARK
SUMMARY OF CAPITAL PROJECTS
STORMWATER CAPITAL PROJECTS FUND**

Approved by the City Commission on September 27, 2023

Description	Estimated 5 Yr. Contribution	Current Balance	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Est. Cost
Stormwater Improvements - Various in-house stormwater projects scheduled for 2022-23 - Shultz Avenue pipe repair, Greentree Drive, Cherokee Avenue drainage improvements, dredging various stormwater outfalls	1,000,000	77,041	200,000	200,000	200,000	200,000	200,000	Ongoing
N Lakemont Seminole County Ditch Piping - cost share with Seminole County	-	733,395						737,600 City portion
Temple Dr Drainage Improvements	750,000				250,000	250,000	250,000	1,200,000
Lake Bell Weir Outfall Improvements	-	69,223						
Canton at Knowles Drainage Improvements	250,000			250,000				250,000
Curb Implementation	250,000		50,000	50,000	50,000	50,000	50,000	500,000
CDS Unit on Fawsett Road	200,000		200,000					200,000
Corrugated Metal Pipe Replacement	600,000			200,000	200,000	200,000		600,000
Nicolet Avenue Stormwater Pond		200,000						200,000
Stirling Bridge Replacement	250,000		250,000					250,000
Lakes Nutrient Budget Studies	200,000						200,000	200,000
Totals	3,500,000	1,079,659	700,000	700,000	700,000	700,000	700,000	

**CITY OF WINTER PARK
SUMMARY OF CAPITAL PROJECTS
STORMWATER CAPITAL PROJECTS FUND**

Approved by the City Commission on September 27, 2023

Description	Estimated 5 Yr. Contribution	Current Balance	5 YR CIP CYCLE					Est. Cost	5 YR CIP CYCLE					Est. Cost
			FY 2024	FY 2025	FY 2026	FY 2027	FY 2028		FY 2029	FY 2030	FY2031	FY2032	FY2033	
Stormwater Improvements - Various in-house stormwater projects scheduled for 2022-23 - Shultz Avenue pipe repair, Greentree Drive, Cherokee Avenue drainage improvements, dredging various stormwater outfalls	1,000,000	77,041	200,000	200,000	200,000	200,000	200,000	Ongoing						Ongoing
N Lakemont Seminole County Ditch Piping - cost share with Seminole County	-	733,395						737,600 City portion						
Temple Dr Drainage Improvements	750,000				250,000	250,000	250,000	1,200,000						
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Canton at Knowles Drainage Improvements	250,000			250,000				250,000						
Curb Implementation	250,000		50,000	50,000	50,000	50,000	50,000	500,000						
CDS Unit on Fawsett Road	200,000		200,000					200,000						
Corrugated Metal Pipe Replacement	600,000			200,000	200,000	200,000		600,000						
Nicolet Avenue Stormwater Pond		200,000						200,000						
Stirling Bridge Replacement	250,000		250,000					250,000						
Lakes Nutrient Budget Studies	200,000						200,000	200,000						
Lake Killarney Canal Maintenance Dredging			—	—	—	—	—		30,000	carry forward	carry forward	carry forward	carry forward	
Totals	3,500,000	1,079,659	700,000	700,000	700,000	700,000	700,000							

**item type**

Public Hearings: Quasi-Judicial Matters

meeting date

January 24, 2024

prepared by

Jeffrey Briggs, Director of Planning and Zoning

approved by

Randy Knight, City Manager

subject

Request of Rollins College for approval to build a three-story, 80,981 square foot, Rollins Faculty & Staff housing building of 48 units via:

1. Comprehensive Plan text policy amendment;
2. Comprehensive Plan future land use map and Zoning map amendments; and
3. Conditional Use approval.

motion | recommendation

The Planning and Zoning Board voted 4-2 for approval with the requirement for a Community Benefit Agreement incorporating conditions as follows:

1. The commitment to affordable/attainable housing for Rollins College faculty and staff for a period of a minimum of 20 years.
2. Prohibition on the use of apartments as undergraduate or graduate student housing or use for classroom instruction.
3. Property to remain on the tax rolls unless permitted for exclusion pursuant to FL Statutes
4. Coffee shop and bookstore space (1,000 sq. ft.) on the first floor of the south 38 feet of the lots fronting New England Avenue shall be used as retail business space open to the public.
5. That a final landscape plan be approved by staff that incorporates tree preservation, the preservation of the two live oak trees in the parking lot and tree buffering along Welbourne Avenue.
6. That a parking management plan be provided to staff prior to the second city commission approval hearing.
7. That the parking at the building be limited to one car for one-bedroom units and two cars for two- and three-bedroom units.
8. That the applicant be required to provide on-street parking along the length of Welbourne Avenue while maintaining two-way traffic lanes with the design, including bump-outs for trees and respecting access to the garage and service bay.

background

Rollins College is requesting approval to build a three-story, 80,981 square foot, 48-unit Faculty and Staff housing development. The site includes a portion with frontage on New England and Welbourne Avenues that now hold 28 existing apartments referred to as the Dan Hunter apartments. The site also includes seven vacant lots that front Welbourne Avenue. The total site size is 78,000 square feet (1.8 acres). All the property is zoned R-3.

Rollins College has provided a project narrative outlining the need for faculty and employee housing. One of the goals of the City Commission and the Chamber of Commerce is in finding ways to promote 'attainable' housing in the city. The City has been a leader among cities in Florida in promoting 'attainable' housing by assisting its non-profit partners of the Winter Park Housing Authority, the Hannibal Square Community Land Trust and Habitat for Humanity with financial support for the creation of such housing. However, there are numerous Comprehensive Plan Policy and Zoning Code challenges that need to be resolved in order to make this project a reality. To that end, Rollins College is asking for a Comprehensive Plan policy text change and some modifications to the future land use and zoning maps.

Comprehensive Plan/Zoning Code Compliance:

Unit Density: One challenge is that the R-3 zoning allows a maximum of 17 units/acre, which on this 1.8-acre site yields 34 units versus the desired 48 units. However, this site does have two unique features that provide a gateway to that 48-unit density. One unique feature is that the existing eastern portion of this site at 273 W. New England Avenue now holds 28 small (500 sf) garden apartments built in 1959, that are referred to as the Dan Hunter apartments, after the former owner/mayor. Since there are more apartments than the current code would allow, the property is a "non-conforming use" meaning it is now "used" for more density than the Zoning Code now allows. However, the Zoning Code, provides that the City may allow the demolition and redevelopment of a "non-conforming use" to the existing density, if deemed for community benefit. As a result, the five lots now holding the 28 units of the Dan Hunter apartments will contain a similar 28 new apartments.

A second unique feature of this overall property is that there is a Settlement Agreement for the three vacant lots at 316 W. Welbourne Avenue. This arose from a Bert Harris claim by the New England Partners LLC. over the adoption of the 2010 Comprehensive Plan. The settlement agreement allows a density of up to 25 units/acre on that property. That added density, together with the other R-3 density entitlements, allows up to the 48 units proposed.

While this unit density exceeds the customary 17 units/acre maximum, the comfort is that the building size in total square feet does not exceed the 110% floor area ratio (FAR) permitted by the Comprehensive Plan and Zoning Code. The proposed total building size is 80,791 sq. ft. (103.82% FAR) and the maximum building size could be up to 85,800 sq. ft. (110% FAR). As a market rate condo, one could build up to 20 condominiums of 4,290 sq. ft. each. Or in this case, 48 apartments that range in size from 905 sq. ft. to 1,615 sq. ft. The average apartment unit size is 1,217 sq. ft. While there are more units, there is not any more building size than is allowed by the Comprehensive Plan and Zoning Code. The building is just divided into smaller units in concert with the proposed use as attainable housing.

Commercial Frontage: At the very beginning of the Community Redevelopment Area in 1995, there was a vision to provide for a pedestrian connection between Park Avenue and Hannibal Square. The goal is to produce street level commercial/office businesses for buildings on New England Avenue. Then one day, residents and visitors could be encouraged to walk up and down, not just Park Avenue, but also New England Avenue as well. While there are existing residential units on the first-floor of buildings fronting Morse Blvd., there are only commercial or office businesses in buildings fronting New England Avenue on the first floor. To that end, there is a Comprehensive Plan policy mandating such for any new redevelopment on New England Avenue. The wording of the current Comprehensive Plan policy implies that the entire first floor of the buildings fronting New England Avenue must be commercial/office. In order to conform to the spirit of this goal, this project features a small coffee shop and bookstore component (1,000 sf) on the first floor of the front 38 feet of the lot depth. Modifications to the future land use plan map and zoning map then become part of this package in order to accomplish this end.

From the City's perspective, requiring 1,000 sf of an 80,981 square foot building (1.2%) should not be a burden upon Rollins College. It is important because what is done in this project will be the precedent when the six adjacent vacant lots fronting New England Avenue immediately to the west, are proposed for development. Since Truist Bank has discontinued the drive-thru tellers and only operates an ATM, that site may also be a future candidate for redevelopment.

Third Floor Building Design: This project is a three-story building with a flat roof within the 35 feet of building height permitted by R-3 zoning. Within the defined Central Business District area and along the New England Avenue corridor, the Comprehensive Plan and Zoning Code allow three-story walls and flat roofs, such as exist to the west along New England Avenue. Outside those areas, one must do a sloped third floor roof with dormers to reduce the visual impact of the three-story height to appear as 2½ stories. (That was the design used for the three-story building that was part of the Winter Park Commons/Patmos Chapel project.) On this project site, the lots that front on New England Avenue are allowed the full three stories but for the lots fronting on Welbourne Avenue, the 2½ story design must be used. The College is requesting the Comprehensive Plan policy text amendment to overcome this design challenge. To the staff, the request is mitigated by the fact that the Welbourne frontage is across the street from the four-story Douglas Grande building.

Parking Compliance: The Code requires 2½ spaces per unit for the 48 apartments (120 spaces) and one per 250 sf for the 1,000 sf of coffee shop/bookstore (4 spaces) or 124 total parking spaces. The proposed plan includes 97 spaces. The 2½ space requirement is based upon the city's experience with projects that need to park visitors and daily trade/delivery parking. Historically, via Conditional Use approvals for the other apartments on New England Avenue, the City has required only 2 spaces per unit, recognizing that on-street parking is available. Using that criteria lessens the requirement to 96 spaces plus the 4 for the coffee shop/bookstore (100 total). It is also reasonable to assume that not every apartment unit will have 2 cars, so that the deficit is minimal. Thus, while the parking provided appears to meet the realistic needs of the project, it is still a variance from the code requirements.

As was discussed with the Winter Park Commons/Patmos Chapel project, there is an opportunity to also create more on-street parking along Welbourne Avenue. This building is 25 feet from the front property line on Welbourne Avenue. This setback area would allow for creation of indented on-street parking (that did not block the travel lanes) with the sidewalk moved onto the front portion of the project property, as well as allowing for bump-outs for new street trees. With the Douglas Grande building located about 10 feet from the street curb, the minimally reduced front landscaped yard setback area would not be out of context.

Tree Preservation: With respect to tree preservation, there are two trees in the middle of the open field that are in poor condition and not worthy of preservation. There are other camphor and wild weed trees along the former interior property lines and along the Bank property lines, that are not required or desired for preservation. There are three nice live oaks in between the two existing apartment buildings that are in good condition, but that is where the building will be, and the development is allowed to give compensation via new tree plantings. There is a beautiful live oak on New England Avenue, just off the property line that will be protected (along with a root system) and a nice live oak where the property "L's" that should be saved with the loss of 1-2 spaces. Staff have provided conditions accordingly.

Community Benefit Agreement: The Comprehensive Plan policy over-rides and overall approval is based upon the College's commitment to provide affordable and attainable housing for their faculty and staff, which is of benefit to the entire city. To that end, there needs to be a formal Community Benefit Agreement that the use of these living units will be for the purposes stated for a significant term, versus conversion to market-rate condominiums and other considerations as included in the motion for approval by the Planning and Zoning Board.

Staff Evaluation and Recommendation: This Rollins Faculty and Staff housing project is important to the College and also the City at-large in providing affordable/attainable housing in proximity to their employment. Winter Park's most successful affordable/attainable housing to-date has been done in conjunction with non-profit partners. This project conforms to the maximum building size (FAR) permitted under the existing zoning and the unit density increases are necessary to provide for the intended usage versus market rate condominiums. As such, this project will be of benefit to the College and to the benefit of the City.

Existing Comprehensive Plan Policies:

Policy 1-2.4.10: Height Restrictions in the Hannibal Square Neighborhood Commercial District. Two-story maximum building heights shall be the maximum permitted, except the City may permit third stories when limited to residential use and deed restricted for residential usage only.

Policy 1-5.4.6: Promote Appropriate Scale & Height for Medium Density Multi-Family Development. Except within the Central Business District geographical area, multi-family residential development within areas designated Medium Density Residential shall not exceed two stories in height unless approved via conditional use by the City Commission. In addition, such third floors must be entirely contained within a sloping roof having a maximum 12:12 roof slope.

Policy 1-H-14: Encourage the Viability of the Hannibal Square Commercial District along New England Avenue. In order to encourage and insure the viability of the Hannibal Square

Commercial District, the existing buildings and any other future buildings with street frontage on New England Avenue shall be required to be used for non-residential business purposes on the first floor and utilized as such for retail space, restaurant space, salons or office space and residential use shall be only permitted on the upper floors of any such building, other than an entrance lobby for access to the upper floor units.

New Proposed Comprehensive Plan Policy:

Policy 1-H-18: Daniel Hunter Apartments Vesting and Roof Slope. The property located at 273 W. New England Avenue (Daniel Hunter Apartments) was developed as 28 residential units, these units may be rebuilt without the requirement for commercial on the first floor of the building (except for the south 38 feet thereof adjacent to New England Avenue). The Daniel Hunter Apartments and the properties at 262, 308, and 316 W. Welbourne Ave and 210 S. Virginia Avenue may be constructed consistent with the roof height as permitted in the R-3 zoning and roof slope as allowed in the Central Business District.

Zoning Code - Nonconforming Use Provisions:

(g) Special permit.

(1) The intent and purpose of this section is to recognize that there are limited and special circumstances where overall community and public policy objectives of the city encourage, and shall be served by, the continuation of some nonconforming uses and structures, provided said uses and structures are not detrimental to the surrounding neighborhood and to the community values established in the city's comprehensive plan and city codes. The city commission desires to establish specific standards for this category of special permit in order to allow the continuation of some nonconforming uses and structures notwithstanding any contrary provisions of this article or City Code.

(2) The city commission at a duly held public hearing may grant a special permit to allow the continuation of a nonconforming use or structure provided the following terms and conditions are strictly satisfied:

- a. The owner of the property on which the nonconforming use or structure exists files a special permit application provided by the city; and
- b. The applicant demonstrates that the continuation of the nonconforming use or structure:
 1. Is capable of contributing in a positive way to character and serves the need of the community, or reuse of buildings with architectural or historic value; and reuse of buildings that generate a significant necessary economic benefit to the community; and
 2. Is compatible with, and not detrimental to, the surrounding neighborhood in terms of traffic, noise, parking, odor, light, intensity and land uses, hours of operation, landscaping, aesthetics, structural design, and density; and
 3. Is consistent with the community values, objectives, and policies established in the city's comprehensive plan and City Code.

(3) The city commission may impose conditions and safeguards as a condition of approval of

any special permit granted under this section and may also provide time limits and expiration of such special event.

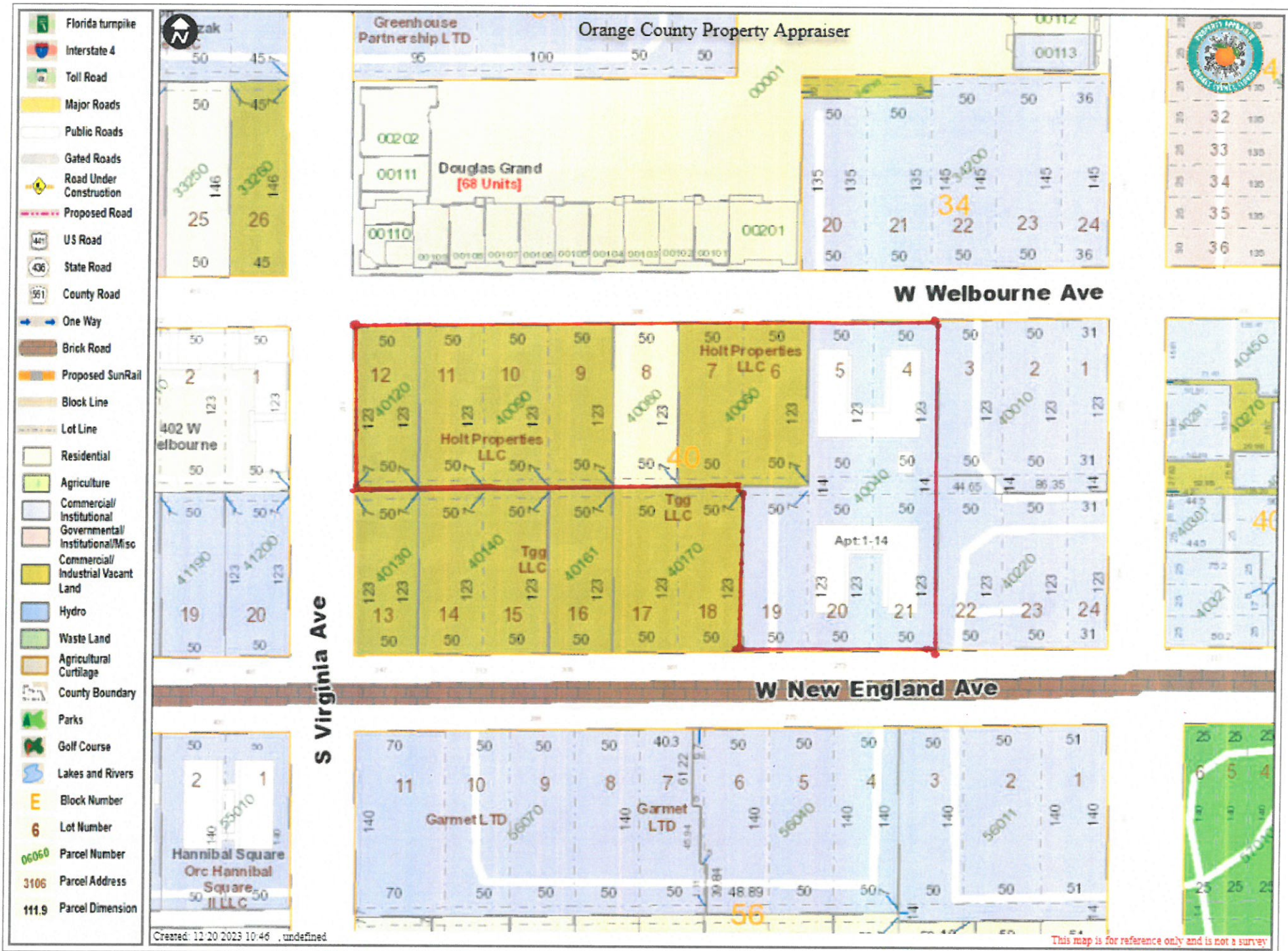
strategic objectives

alternatives | other considerations

fiscal impact

attachments

1. Map and aerial
2. Faculty and Staff Housing Project Narrative
3. ROLLINS FACULTY APARTMENTS - NEW LAYOUT - 11-09-2023
4. Ordinance - Comp Plan (Faculty_Staff Housing)
5. Ordinance - Zoning Map
6. New England Partners, LLC
7. All Neighbor Letters



- Florida turnpike
- Interstate 4
- Toll Road
- Major Roads
- Public Roads
- Gated Roads
- Road Under Construction
- Proposed Road
- US Road
- State Road
- County Road
- One Way
- Brick Road
- Proposed SunRail
- Block Line
- Lot Line
- Residential
- Agriculture
- Commercial/Institutional
- Governmental/Institutional/Misc
- Commercial/Industrial Vacant Land
- Hydro
- Waste Land
- Agricultural Curtilage
- County Boundary
- Parks
- Golf Course
- Lakes and Rivers
- E Block Number
- 6 Lot Number
- 06060 Parcel Number
- 3106 Parcel Address
- 111.9 Parcel Dimension



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This map is for reference only and is not a survey



STAFF AND FACULTY HOUSING

OCTOBER 2023

Staff and Faculty Housing

In Rollins College's Winter Park and metropolitan Orlando area, as in many cities across the United States, buying or renting housing near to where they work is becoming increasingly difficult for middle-income workers such as many Rollins employees. This is due in part to wages not keeping up with increasing costs of living but is due also to the limited supply of housing affordable to these workers. In response to limited affordable housing options in the areas where they work, many middle-income workers move to the outer fringes of a region, leading to longer commute times for the worker, higher levels of traffic, and other negative externalities for the surrounding area (Parlow, Matthew J. "Whither Workforce Housing?" *Journal of Affordable Housing & Community Development Law*; Chicago, Vol. 23, Iss 3/4 (2015): 373-391).

Access to stable and affordable housing options allows households to prioritize other important household expenses, grow their savings, and engage in long-term financial planning. It can also increase employee availability and reliability and support better job performance and career advancement opportunities. In today's economy, where competition for workers is strong, access to housing near one's place of work provides a competitive advantage for employers (*Economic Benefits of Affordable and Workforce Housing Options*, Ulster County (NY) Housing Smart Communities Initiative, July 2022).

Recognizing the challenges and benefits, several years ago Rollins College established a faculty housing program (<https://www.rollins.edu/property-management/faculty-housing/>). However, to date the challenges have outpaced the College's ability to meet them. "We have struggled in my tenure at Rollins to find enough availability (of staff and faculty housing) to meet the needs of incoming tenure track faculty," said Edward Kania, Vice President for Business & Finance and Treasurer. Dr. Donald Davison, Vice President for Academic Affairs and Provost, added, "It is becoming increasingly difficult to hire faculty, for many reasons, and the cost of living/housing is prominent among those reasons. Affordable housing close to campus contributes to faculty being able to attend campus events."

Students and their families choose Rollins because they value living and learning in a community grounded in close relationships between students, faculty, and staff. Faculty and student-facing staff having to live further and further away from campus is coming increasingly closer to constituting an existential threat to the College. The proposed staff and faculty housing project will situate several dozen faculty or student-facing staff

members within walking or bicycling distance from campus, not only connecting them with students (and one another) more closely and more frequently but also taking their motor vehicles largely off the local roads and aiding the economy in Winter Park's central business district.

A Strategy that Meets Multiple Needs

Rollins College has begun pursuing approval from the City of Winter Park to construct a staff and faculty housing apartment complex on vacant property the College owns three blocks north and two and one-half blocks west of the Rollins campus, in downtown Winter Park's Hannibal Square shopping and dining district, which also is only two blocks west of downtown Winter Park's Park Avenue shopping and dining district. The property is bounded on the north by West Welbourne Avenue, on the west by South Virginia Avenue, and on the south by West New England Avenue.

Rollins plans to direct net leasing revenue from the housing to support scholarships to Rollins students with demonstrated financial need, and thereby execute on a second College strategic effort: filling a critical need to fund more of our unfunded financial aid. Doing that secures the economic viability of Rollins' core business plan.

Meeting the Moment

While momentum in academic and mission reputation and market position makes Rollins College an increasingly attractive place to teach, mentor, or otherwise serve, there is no denying or escaping "the other side" of Rollins' being situated near the epicenter of the dynamic Greater Orlando/Winter Park economy/milieu. The other side: unaffordable housing costs relative to one's income. The price per square foot for a single family home in Rollins College's ZIP code in Winter Park (32789) is 44% higher than in the rest of Rollins' county (Orange County, Florida). Most of the rental product that both is near the Rollins campus and would appeal to Rollins employees rents for a minimum of \$1,800 to \$2,000 per month for a one-bedroom, one-bathroom unit, or for \$2,300+ per month for a two-bedroom, one-bathroom unit.

Although the high cost prevents most middle- and lower-income Rollins employees from living near the College, demand for staff and faculty housing near campus remains high. Students and their families choose Rollins because they value the students' living and Additionally, many of those who have been able to avail themselves of Rollins' faculty housing program extoll the virtues of living near campus.

Dr. Walter Mswaka, Associate Professor of Social Entrepreneurship, who currently is living in Rollins faculty housing, explained that his being able to move into a furnished apartment near campus upon his entry into this country from England for work "was great, because it made everything seamless and so much more convenient." Dr. Mswaka also said that being neighbors with some faculty members from different departments throughout the College has been not only wonderful for social purposes but also useful for building special connections; it even has helped those faculty members become more comfortable reaching

across academic disciplinary boundaries for ideas and partnerships in their teaching, service, and research. Dr. Victoria Machado, Visiting Assistant Professor of Environmental Studies, another current tenant in faculty housing, cited the availability of it as “one of the main reasons that I decided to accept a position at Rollins. I have found friendships there, and I really appreciate how close it is to campus.” Other tenants of the housing have also emphasized that living so close to campus facilitated their ability to engage more in the Rollins community beyond their teaching and advising. “Connection” has become a real thing for several faculty members who otherwise might never have assimilated so well into our living learning community.

New Construction of

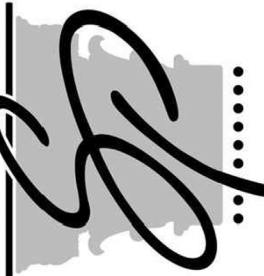
ROLLINS FACULTY APARTMENTS

Winter Park, FL

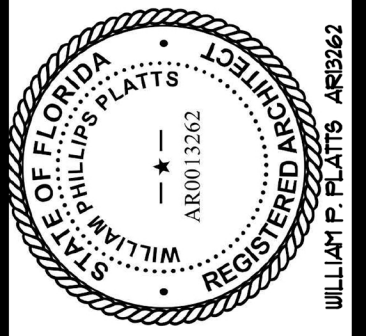


Architect
Slocum Platts Architects, P.A.
www.slocumplatts.com
670 N. Orlando Ave., Suite 1001
PH. (407) 645-3019
Maitland, Florida 32751
FAX (407) 645-2771

REVISIONS	
DESIGN SET	06-28-23



**SLOCUM PLATTS
ARCHITECTS, P.A.**
RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL. (407) 645-3019 FAX (407) 645-2771
WWW.SLOCUMPLATTS.COM



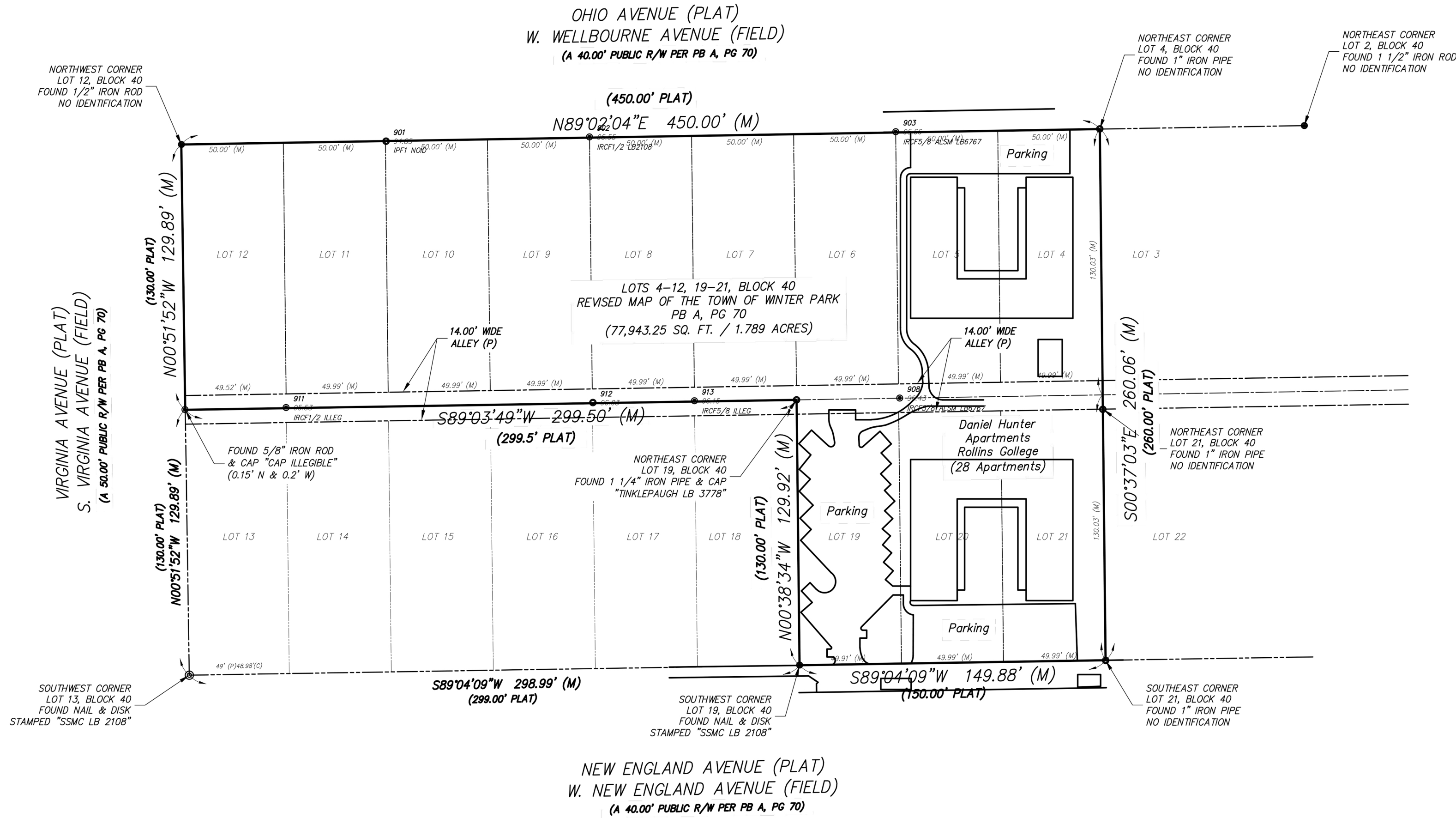
COVER SHEET

**ROLLINS FACULTY
APARTMENTS**

WINTER PARK
FLORIDA

DRAWN	SPA
CHECKED	WFP
DATE	11-09-2023
SCALE	AS NOTED
JOB NO.	23-013
SHEET	A0.0

RESERVED FOR DIGITAL SIGNATURE

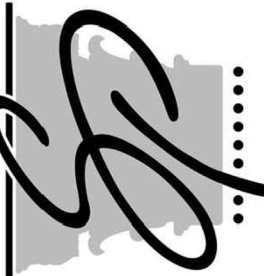


1 EXISTING SITE PLAN
SCALE: 1/4" = 1'-0"

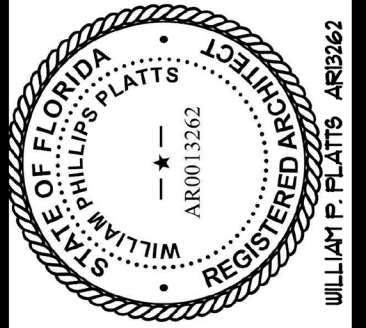
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REVISIONS	
DESIGN SET	06-28-23

SLOCUM PLATTS
ARCHITECTS, P.A.



RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE, SUITE 1001 MAITLAND, FL 32751
TEL. (407) 645-3019 FAX (407) 645-2771
WWW.SLOCUMPLATTS.COM



EXISTING ARCHITECTURAL SITE PLAN

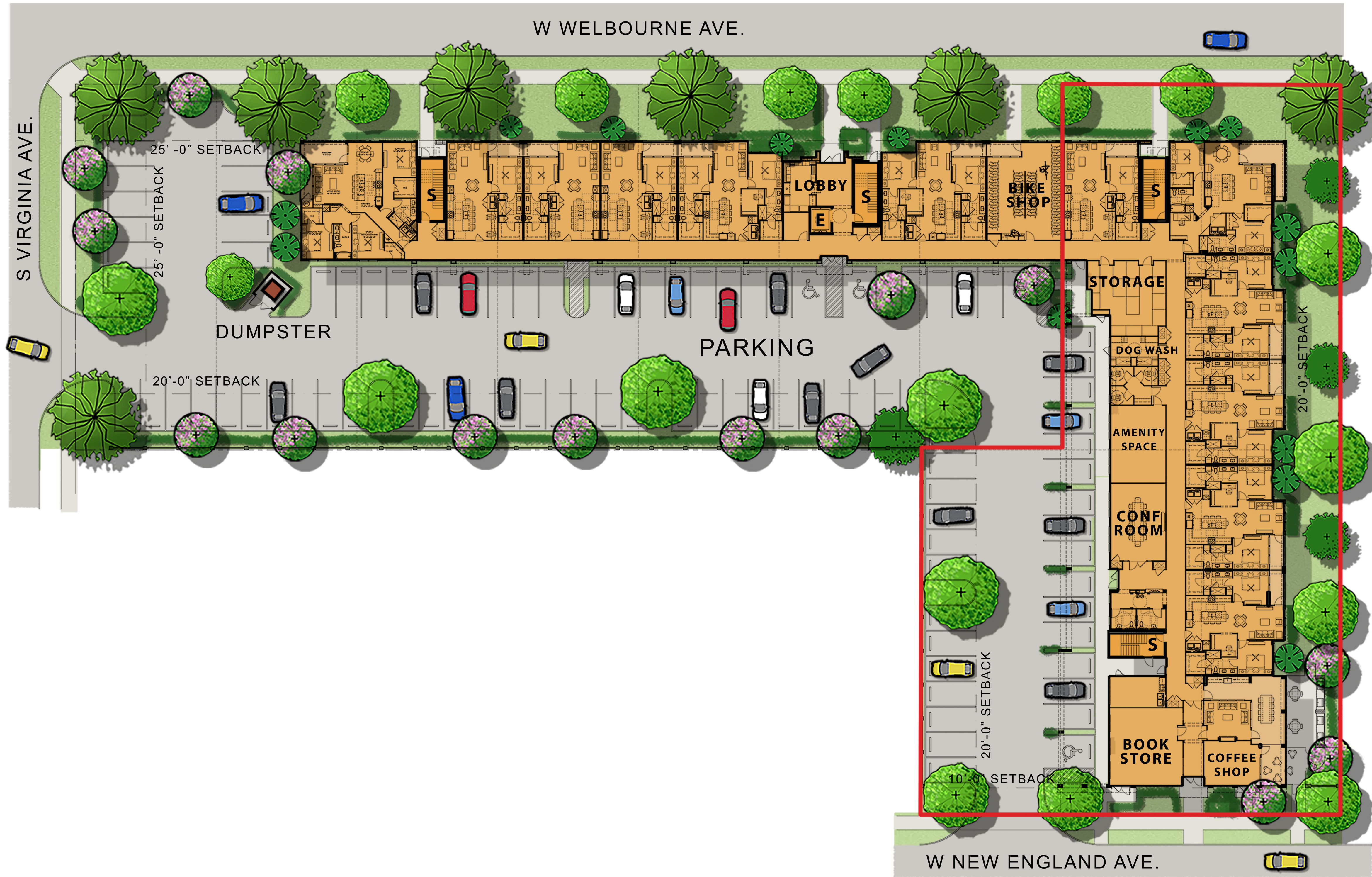
ROLLINS FACULTY
APARTMENTS

FLORIDA

WINTER PARK

DRAWN	SPA
CHECKED	WFP
DATE	06-28-23
SCALE	AS NOTED
JOB NO.	23-013
SHEET	

A1.2



1 SITE PLAN
SCALE: 1" = 20'-0"

ROLLINS FACULTY APARTMENTS

REVISIONS	
PERMIT SET	XX-XX-XX

SLOCUM PLATTS
ARCHITECTS, P.A.

[Signature]

RANDALL J. SLOCUM AR 13350 WILLIAM P. PLATTS AR 13262
670 NORTH ORLANDO AVENUE SUITE 1001 MAITLAND, FL 32751
TEL (407) 845-3019 FAX (407) 845-2771
WWW.SLOCUMPLATTS.COM

SITE PLAN

ROLLINS FACULTY APARTMENTS

FLORIDA

WINTER PARK

DRAWN	WTBjr
CHECKED	WFP
DATE	10-21-2023
SCALE	AS NOTED
JOB NO.	23-013
SHEET	A1.1

S VIRGINIA AVENUE

W WELBOURNE AVENUE

FIRST FLOOR

W NEW ENGLAND AVENUE

PARKING CALCULATIONS	
LOT #s 4 THRU 12 & 19 THRU 21 W. WELBOURNE AVENUE	
SITE AREA	78,000 SF
TOTAL UNITS IN PROJECT	48 UNITS
PARKING REQUIRED (2 PER UNIT)	96 SPACES
REGULAR PARKING	93 SPACES
HANDICAP PARKING	4 SPACES
MOTORCYCLE PARKING	0 SPACES
TOTAL PARKING	97 SPACES

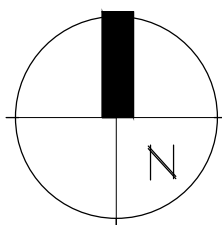
BUILDING COVERAGE CALCS	
LOT #s 4 THRU 12 & 19 THRU 21 W. WELBOURNE AVENUE	
SITE AREA	78,000 SF
BLDG COVERAGE ALLOWED 40%	31,200 SF
BLDG COVERAGE SHOWN	38.58% 30,092 SF

FLOOR AREA RATIO CALCS.	
LOT #s 4 THRU 12 & 19 THRU 21 W. WELBOURNE AVENUE	
SITE AREA	78,000 SF
MAX FAR (110.00%)	85,800 SF
FAR SHOWN (103.82%)	77,192 SF
FIRST FLOOR	24,853 SF
SECOND FLOOR	28,072 SF
THIRD FLOOR	28,056 SF
NET TOTAL	80,981 SF

UNIT DATA - 3 STORY BLDG	
LOT #s 4 THRU 12 & 19 THRU 21 W. WELBOURNE AVENUE	
SITE AREA	78,000 SF
A1 UNIT	905 SQ. FT. 4 UNITS
A2 UNIT	1,014 SQ. FT. 10 UNITS
B1 UNIT	1,212 SQ. FT. 18 UNITS
B2 UNIT	1,349 SQ. FT. 4 UNITS
B3.1 UNIT	1,380 SQ. FT. 3 UNITS
B3.2 UNIT	1,384 SQ. FT. 4 UNITS
C1 UNIT	1,551 SQ. FT. 3 UNITS
C2 UNIT	1,615 SQ. FT. 2 UNITS
TOTAL UNITS	48 UNITS

AREA DENSITY CALCS.	
LOT #s 4 THRU 12 & 19 THRU 21 W. WELBOURNE AVENUE	
SITE AREA	1.791 ACRES 78,000 SF
ORIGINAL SITE AREA (5 LOTS)	32,500 SF
28 EXISTING UNITS	
LOTS 9/10/11 SITE AREA (3 LOTS)	19,500 SF
0.447658 ACRES x 25 PER ACRE =	11 UNITS
LOTS 6/7/8/12 SITE AREA (4 LOTS)	26,000 SF
0.596677 ACRES x 17 PER ACRE =	10 UNITS
49 TOTAL UNITS PER SITE	78,000 SF

1 FIRST FLOOR PLAN ON SITE
SCALE: 1" = 20'-0"



REVISIONS	
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FIRST FLOOR PLAN ON SITE

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A2.1

1 THIRD FLOOR PLAN
SCALE: 1/20' = 1'-0"



THIRD FLOOR

REVISIONS	
PERMIT SET	XX-XX-XX

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[Logo: Stylized 'SP' with dots]

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THIRD FLOOR PLAN

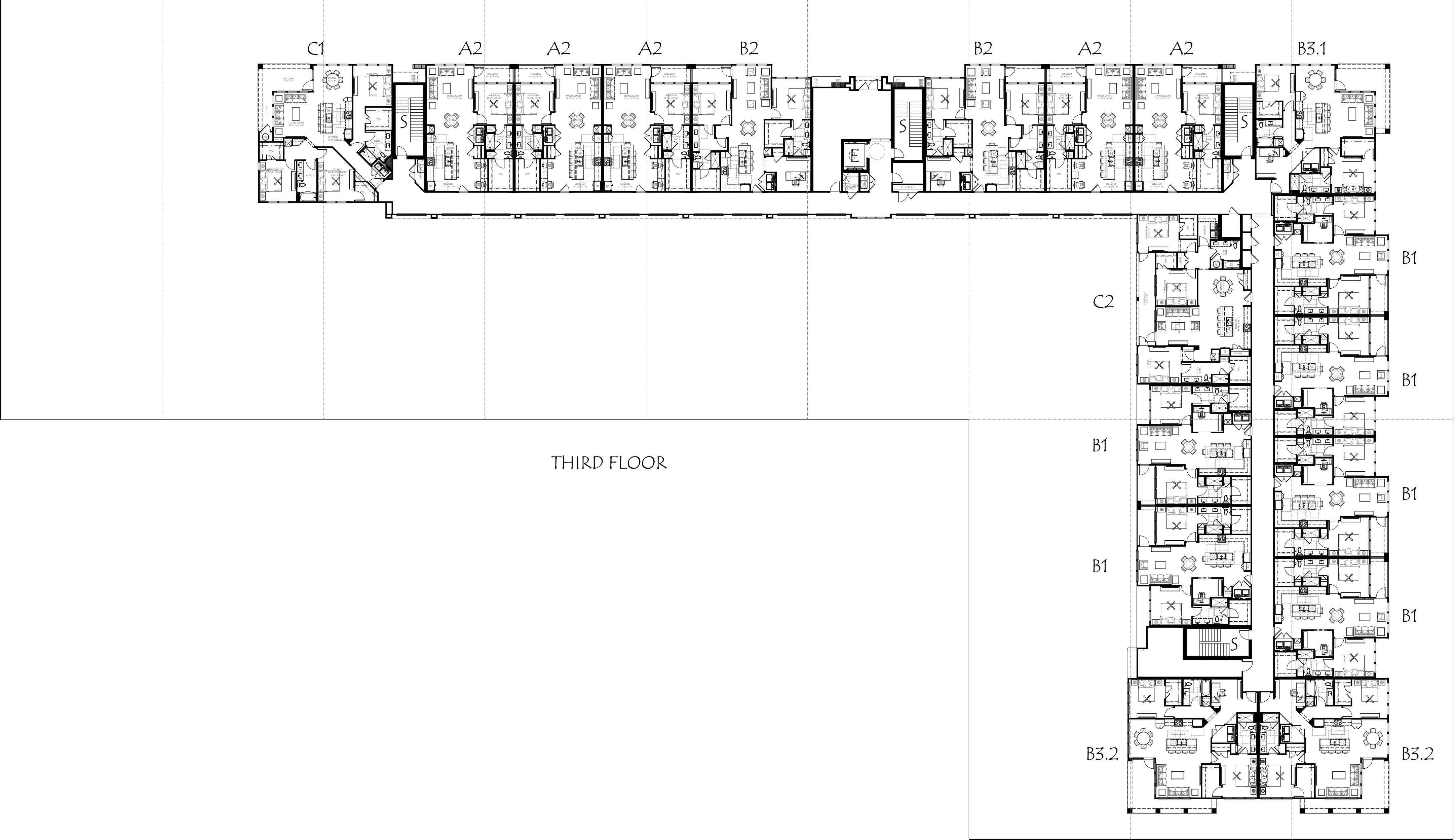
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APARTMENTS**

WINTER PARK
FLORIDA

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DATE
10-21-2023
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A2.3

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1 THIRD FLOOR PLAN
SCALE: 1/20" = 1'-0"



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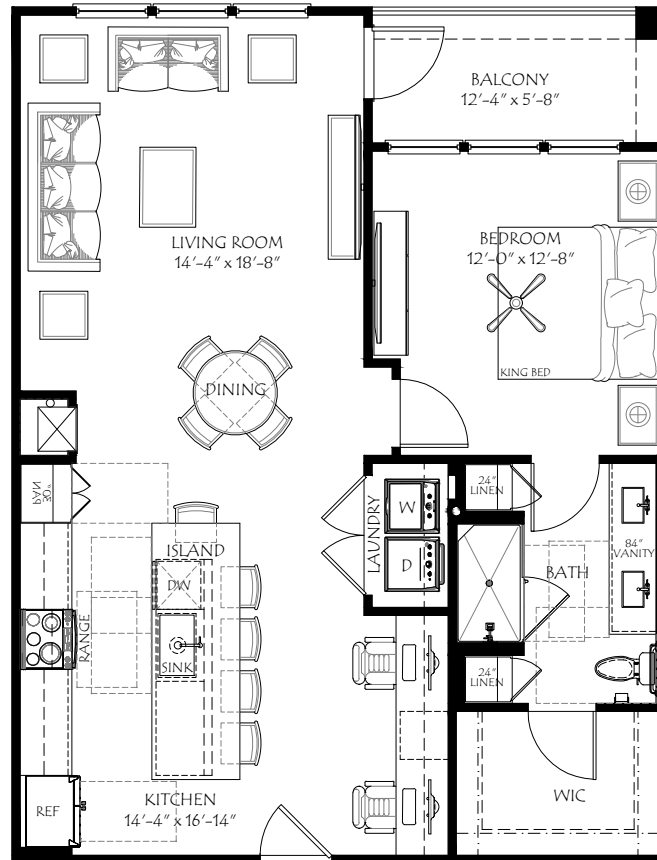
THIRD FLOOR PLAN

**ROLLINS FACULTY
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WINTER PARK
FLORIDA

DRAWN	WTEBJr
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DATE	10-27-2023
SCALE	AS NOTED
JOB NO.	23-013
SHEET	A2.3

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A1 905 SQ FT AC
4 UNITS



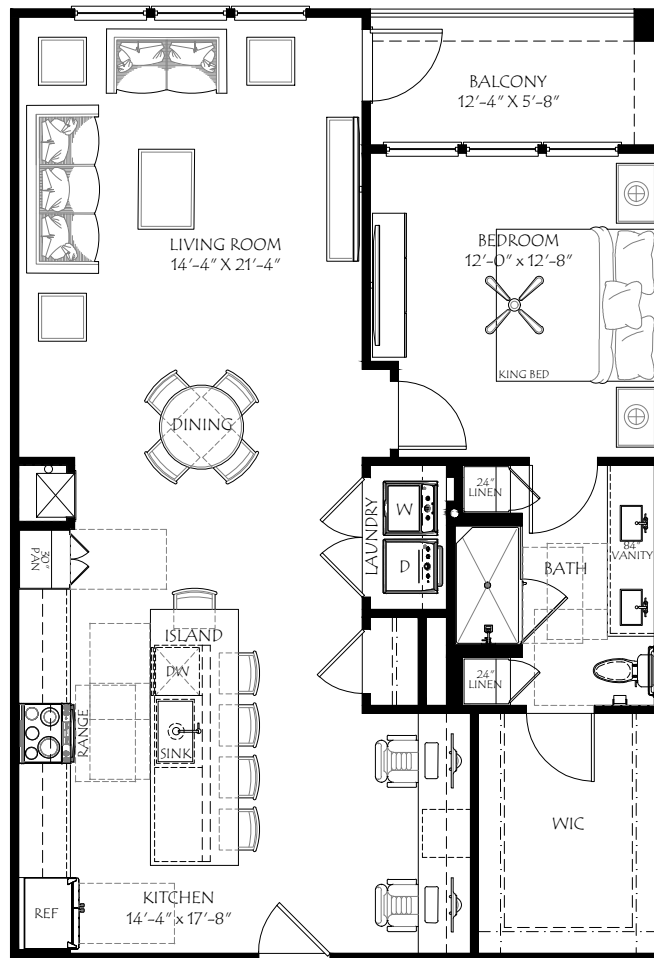
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**ROLLINS FACULTY
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DATE: 10-30-2023
SPA PROJECT No: 23-013
UNIT LAST USED IN:

FIGURE:



A2 1,014 SQ FT AC
10 UNITS



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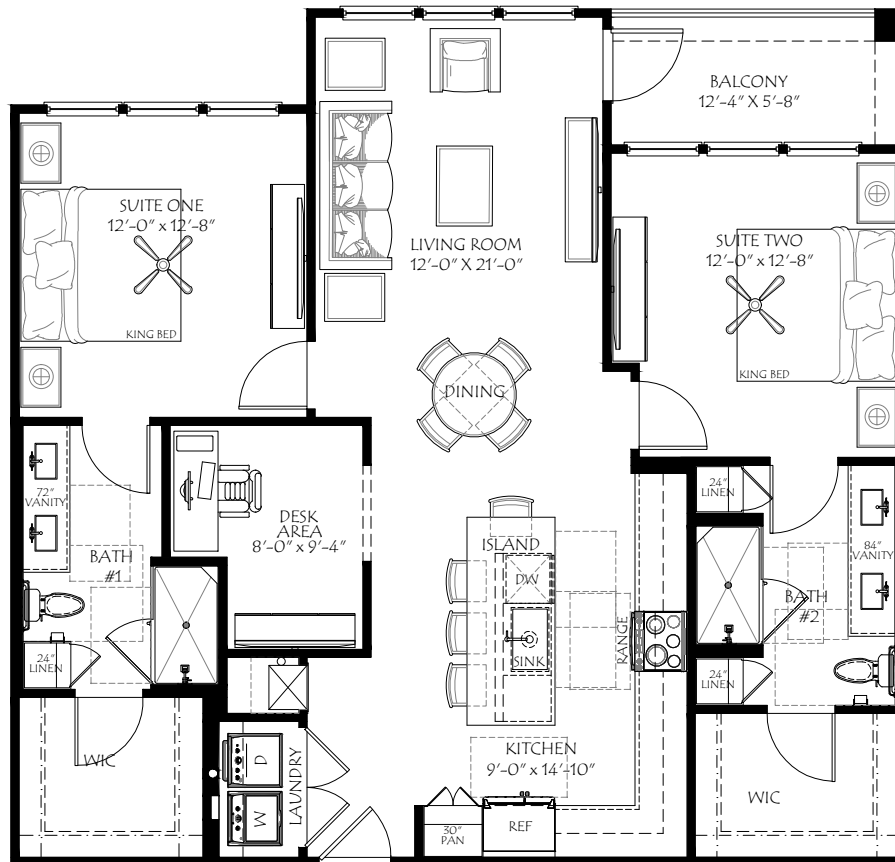
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ROLLINS FACULTY APARTMENTS

DATE: 10-30-2023
SPA PROJECT No: 23-013
UNIT LAST USED IN:

FIGURE:



B1

1,212 SQ FT AC
18 UNITS



SLOCUM PLATTS

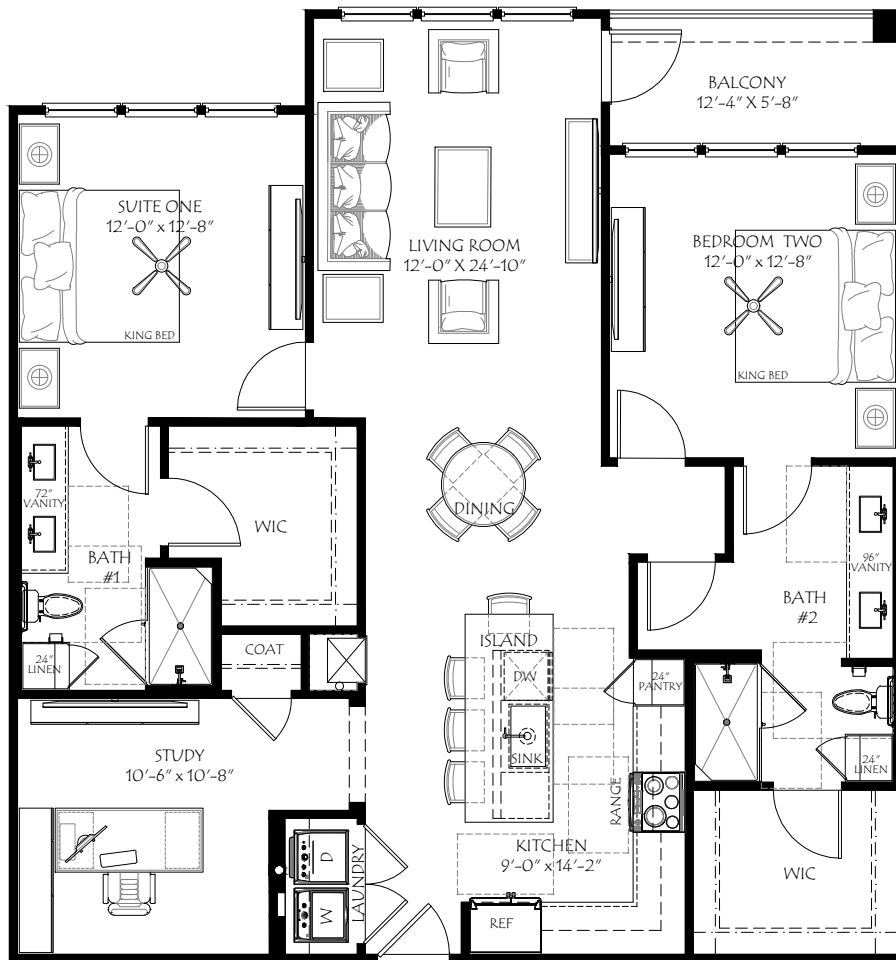
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ROLLINS FACULTY APARTMENTS

DATE: 10-30-2023
SPA PROJECT No: 23-013
UNIT LAST USED IN:

FIGURE:



B2

1,362 SQ FT AC
4 UNITS



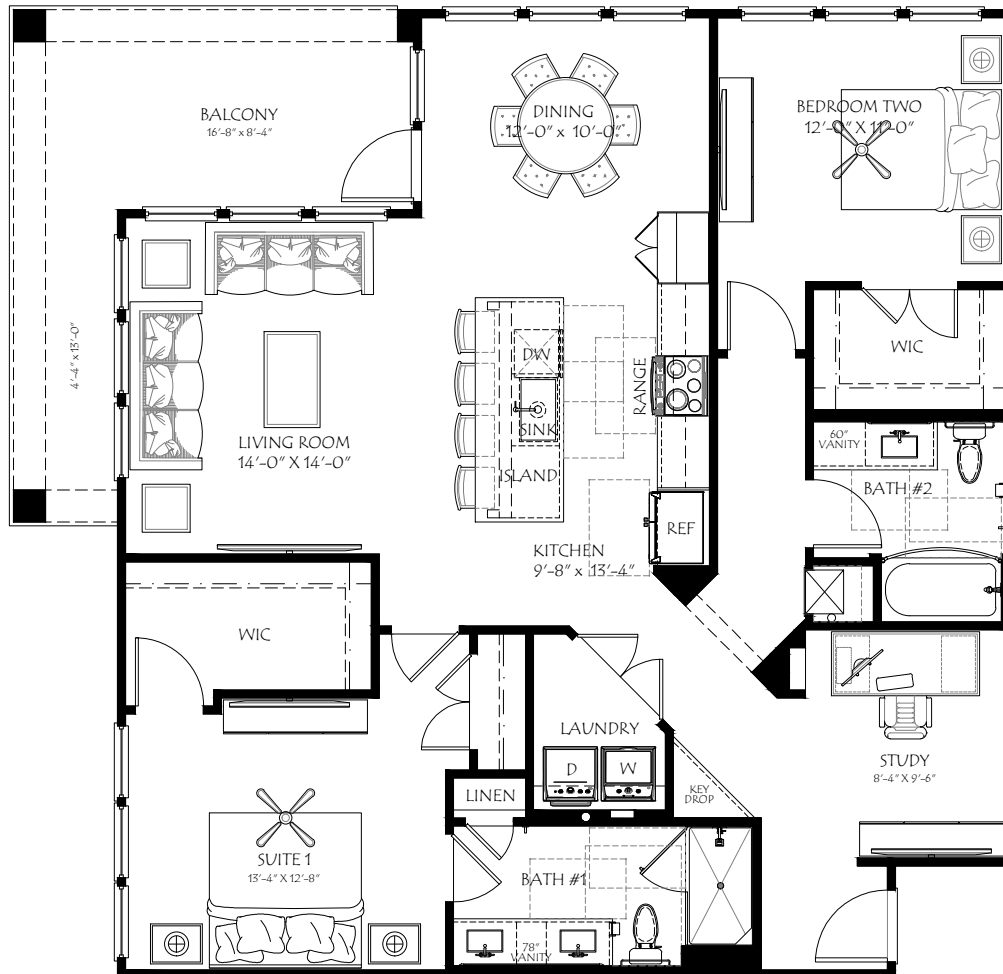
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DATE: 10-30-2023
SPA PROJECT No: 23-013
UNIT LAST USED IN:

FIGURE:



B3.1

1,380 SQ FT AC
3 UNITS



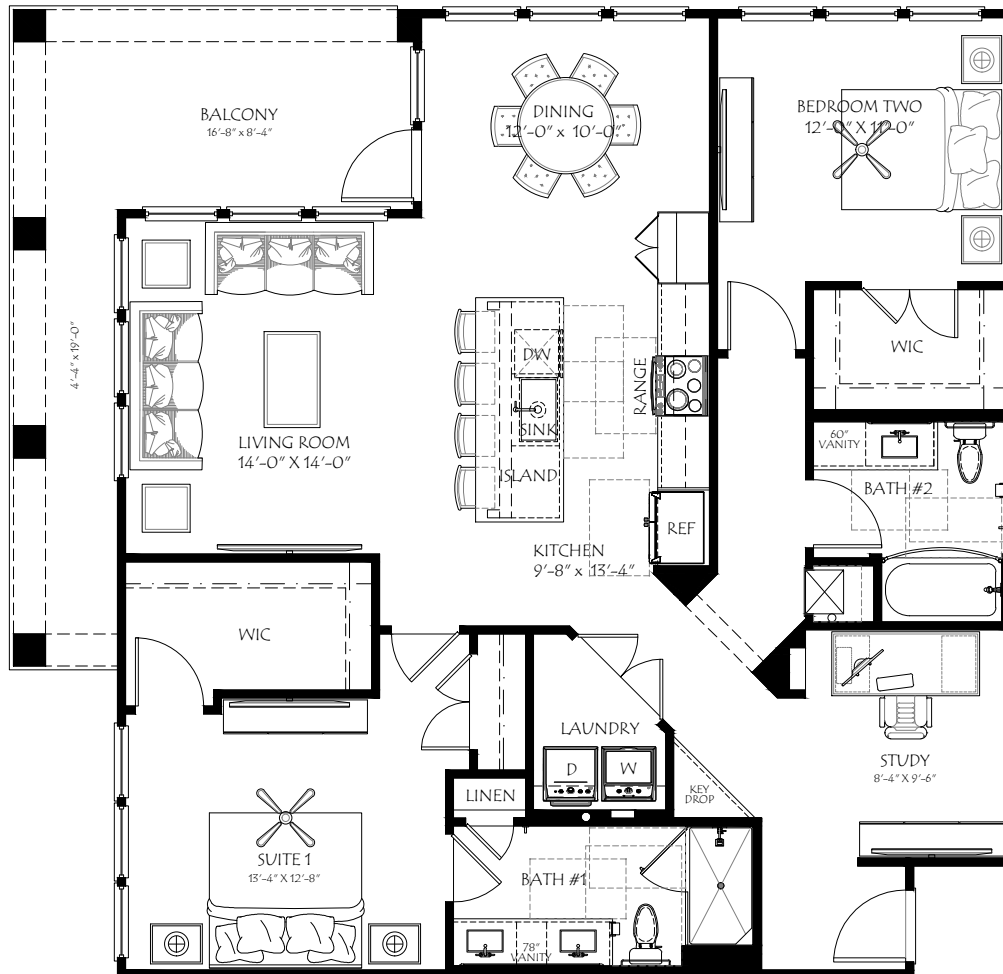
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ROLLINS FACULTY
APARTMENTS

DATE: 10-26-2023
SPA PROJECT No: 23-013
UNIT LAST USED IN:

FIGURE:



B3.2

1,384 SQ FT AC
4 UNITS



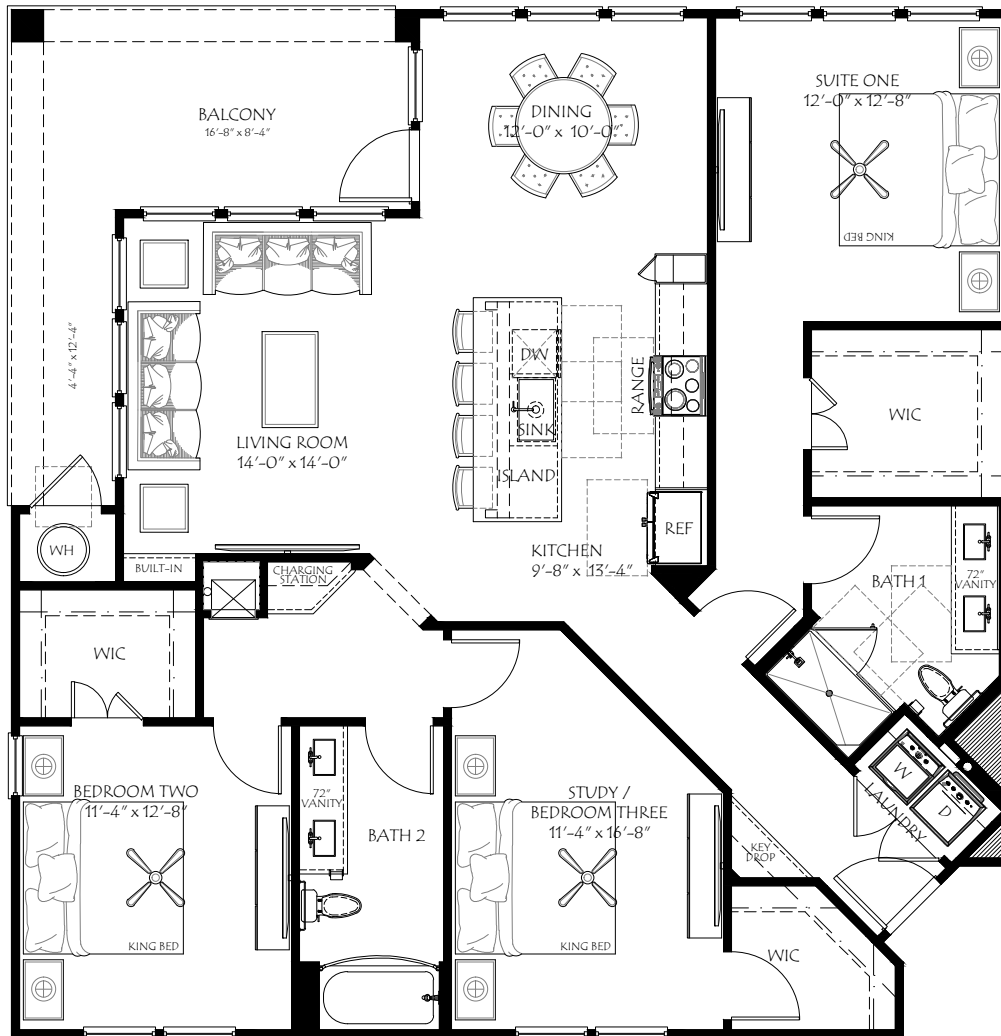
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**ROLLINS FACULTY
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UNIT LAST USED IN:

FIGURE:



C1

1,551 SQ FT AC
3 UNITS



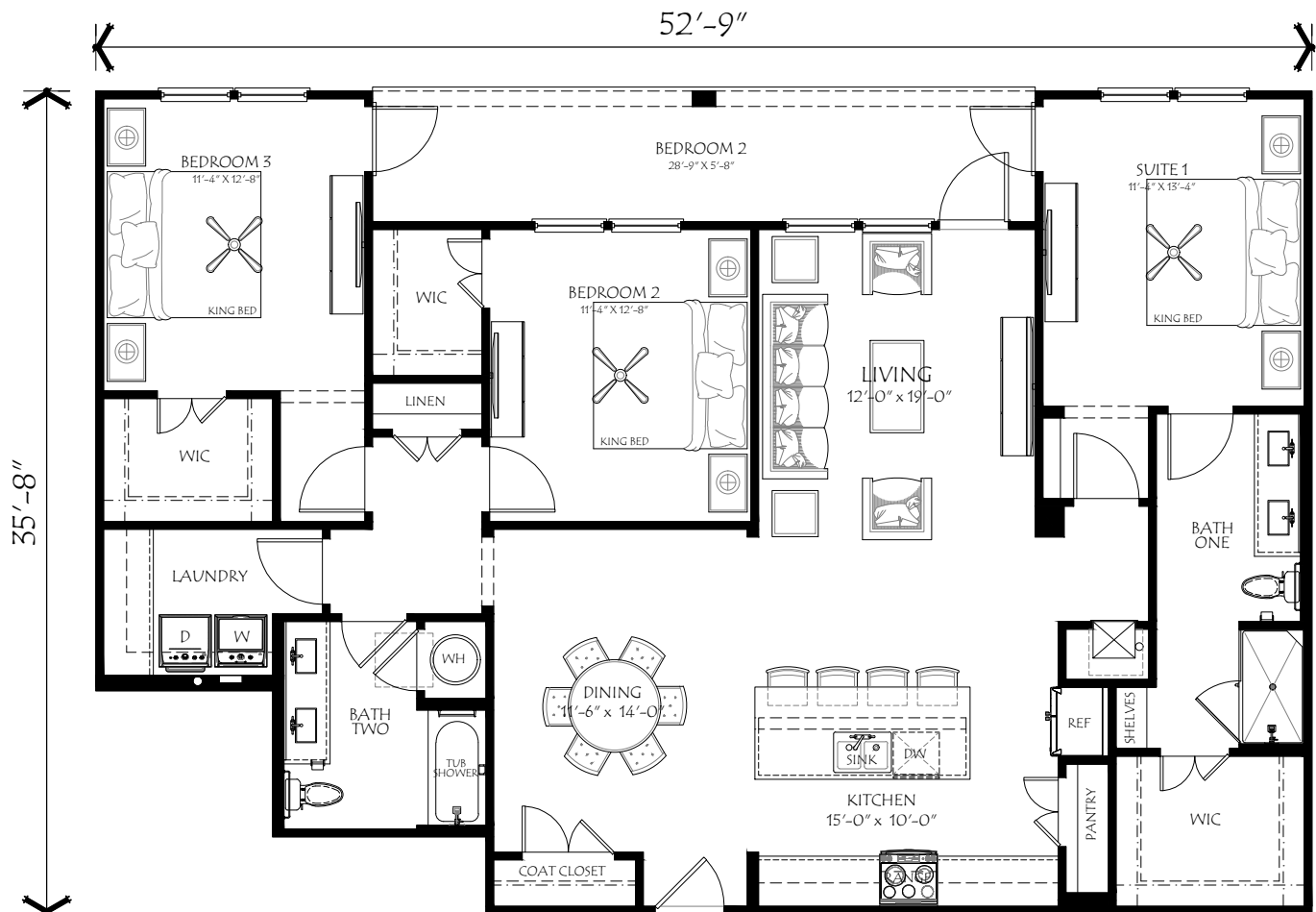
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**ROLLINS FACULTY
APARTMENTS**

DATE: 10-26-2023
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UNIT LAST USED IN:

FIGURE:



C2.0 1,615 S.F. AC
2 UNITS



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ROLLINS FACULTY APARTMENTS

DATE: 10-26-2023
SPA PROJECT No: 23-013
UNIT LAST USED IN:

FIGURE:



1 FRONT (WEST WELBOURNE AVENUE) ELEVATION
SCALE: 1/16" = 1'-0"



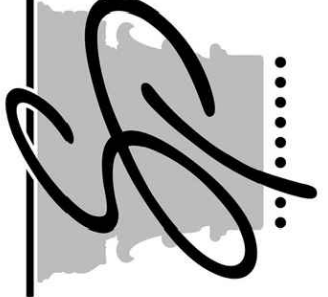
2 FRONT ELEVATION LEFT END
SCALE: 1/8" = 1'-0"



3 FRONT ELEVATION RIGHT END
SCALE: 1/8" = 1'-0"

REVISIONS	
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FRONT ELEVATION
**ROLLINS FACULTY
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WINTER PARK
FLORIDA

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SCALE	AS NOTED
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A6.1



1 RIGHT SIDE (S VIRGINIA AVENUE) ELEVATION
SCALE: 1/16" = 1'-0"



2 RIGHT SIDE (S VIRGINIA AVENUE) ELEVATION - LEFT END
SCALE: 1/8" = 1'-0"



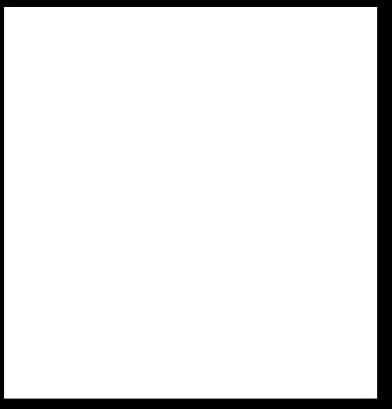
3 RIGHT SIDE (S VIRGINIA AVENUE) ELEVATION - RIGHT END
SCALE: 1/8" = 1'-0"

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RIGHT SIDE ELEVATION

**ROLLINS FACULTY
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JOB NO.	23-013
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A6.2



1 REAR (NEW ENGLAND AVENUE) ELEVATION
SCALE: 1/16" = 1'-0"



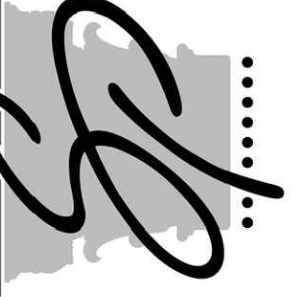
2 REAR ELEVATION LEFT END
SCALE: 1/8" = 1'-0"



3 REAR ELEVATION RIGHT END
SCALE: 1/8" = 1'-0"

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PERMIT SET	XX-XX-XX

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REAR ELEVATION
ROLLINS FACULTY
APARTMENTS
WINTER PARK
FLORIDA

DRAWN	WTEJr
CHECKED	WPP
DATE	10-21-2023
SCALE	AS NOTED
JOB NO.	23-013
SHEET	

A6.3



1 LEFT ELEVATION
SCALE: 1/16" = 1'-0"



2 LEFT ELEVATION LEFT END
SCALE: 1/8" = 1'-0"



3 LEFT ELEVATION RIGHT END
SCALE: 1/8" = 1'-0"

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LEFT ELEVATION

ROLLINS FACULTY
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WINTER PARK FLORIDA

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AS NOTED
JOB NO.
23-013
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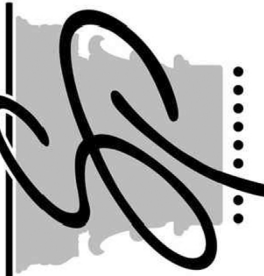
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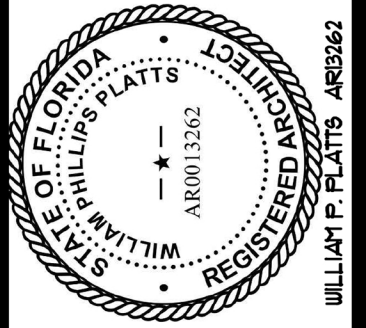
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REVISIONS	
DESIGN SET	06-28-23



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EXTERIOR RENDER

ROLLINS FACULTY
APARTMENTS

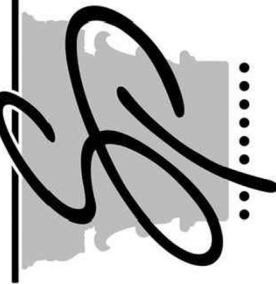
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FLORIDA

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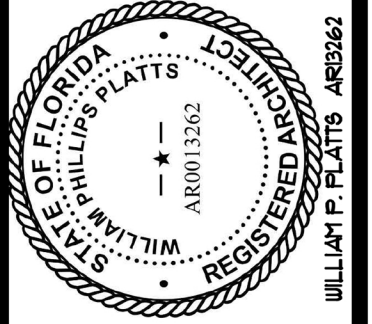
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EXTERIOR RENDER

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FLORIDA
WINTER PARK

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JOB NO.	23-013
SHEET	A9.2

ORDINANCE NO. _____

AN ORDINANCE TO AMEND CHAPTER 58, LAND DEVELOPMENT CODE, ARTICLE I, "COMPREHENSIVE PLAN" TO ADOPT IN THE FUTURE LAND USE ELEMENT, A NEW POLICY OUTLINING PERMITTED USES FOR CERTAIN PROPERTIES ON WEST NEW ENGLAND AND WELBOURNE AVENUES IN ORDER TO PROMOTE ATTAINABLE HOUSING AND AMENDING THE COMPREHENSIVE PLAN FUTURE LAND USE MAP SO AS TO CHANGE THE FUTURE LAND USE DESIGNATION OF COMMERCIAL TO MEDIUM DENSITY RESIDENTIAL ON LOTS 19-21, BLOCK 40 (EXCEPT FOR THE SOUTH 38 FEET THERE OF, WITHIN THE PROPERTY AT 273 WEST NEW ENGLAND AVENUE, PROVIDING FOR CODIFICATION, SEVERABILITY, CONFLICTS AND AN EFFECTIVE DATE.

WHEREAS, Sections 163.3184 and 163.3187, Florida Statutes, establishes a process for adoption of comprehensive plans or plan amendments amending the future land use designation of property along with text amendments relating thereto; and

WHEREAS, this Comprehensive Plan amendment meets the requirements and criteria established by Chapter 163 and 166, Florida Statutes, including without limitation, the small-scale comprehensive plan amendment provisions of Section 163.3187, Florida Statutes; and

WHEREAS, pursuant to and in compliance with law, notice has been given to the public by publication in a newspaper of general circulation and a city-wide public notice mailed to all households in the city of the public hearings to be held; and

WHEREAS, the Winter Park Planning and Zoning Board, acting as the designated Local Planning Agency, has reviewed and recommended adoption of the proposed Comprehensive Plan amendment, having held an advertised public hearing on January 9, 2024, provided for participation by the public in the process, and rendered its recommendations to the City Commission; and

WHEREAS, the Winter Park City Commission has reviewed the proposed Comprehensive Plan amendment and held advertised public hearings on January 24, 2024 and on February 14, 2024 and provided for public participation in the process in accordance with the requirements of state law and the procedures adopted for public participation in the planning process.

NOW THEREFORE BE IT ENACTED BY THE CITY OF WINTER PARK, FLORIDA, AS FOLLOWS:

SECTION 1. FLU MAP AMENDMENT. That Chapter 58 "Land Development Code", Article I, "Comprehensive Plan" Future Land Use plan map is hereby amended so as to change the Future Land Use map designation of Commercial to

Medium Density Residential on Lots 19, 20 and 21 (less the south 38 feet thereof), Block 40, Revised Map of the Town of Winter Park, as recorded in Plat Book "A", pages 67-72 of the Public Records of Orange County, Florida.

SECTION 2. TEXT AMENDMENT. That Chapter 58 "Land Development Code", Article I, "Comprehensive Plan", is hereby amended by adding a new Future Land Use Element Policy within the Hannibal Square Neighborhood Planning Area "H" of the Goals, Objectives and Policies to read as follows (words that are underlined are additions; words that are ~~stricken~~ are deletions; and all other provisions of such sections not included shall remain unchanged):

PLANNING AREA H: HANNIBAL SQUARE NEIGHBORHOOD

Policy 1-H-18: Daniel Hunter Apartments Vesting and Roof Slope. The property located at 273 W. New England Avenue (Daniel Hunter Apartments) was developed as 28 residential units, these units may be rebuilt without the requirement for commercial on the first floor of the building (except for the south 38 feet thereof adjacent to New England Avenue). The Daniel Hunter Apartments and the properties at 262, 308, and 316 W. Welbourne Ave and 210 S. Virginia Avenue may be constructed consistent with the roof height as permitted in the R-3 zoning and roof slope as allowed in the Central Business District.

SECTION 3. Codification. Sections 2 of this Ordinance shall be incorporated into the Winter Park Comprehensive Plan. Any section, paragraph number, letter and/or any heading may be changed or modified as necessary to effectuate the foregoing intent. Grammatical, typographical and similar or like errors may be corrected, and additions, alterations, and omissions not affecting the construction or meaning of this Ordinance and the Comprehensive Plan may be freely made.

SECTION 4. Severability. If any Section or portion of a Section of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other Section or part of this Ordinance.

SECTION 5. Conflicts. In the event of a conflict between this Ordinance and any other ordinance of the City of Winter Park or part thereof, this Ordinance shall control to the extent of the conflict.

SECTION 6. Effective Date of Ordinance. The effective date of this Ordinance shall be 31 days after its adoption unless the comprehensive plan amendment(s) set forth herein is/are timely challenged in accordance with general law. If timely challenged, this Ordinance shall become effective in accordance with general law.

ADOPTED at a regular meeting of the City Commission of the City of Winter Park, Florida, held in City Hall, Winter Park, on this _____ day of _____, 2024.

Mayor Phillip Anderson

Attest:

Rene Cranis, City Clerk

ORDINANCE NO. _____

AN ORDINANCE AMENDING CHAPTER 58 "LAND DEVELOPMENT CODE" ARTICLE III, "ZONING" TO AMEND THE "OFFICIAL ZONING MAP" TO CHANGE FROM MEDIUM DENSITY MULTIPLE FAMILY RESIDENTIAL (R-3) DISTRICT ZONING TO CBD (C-2) DISTRICT ZONING ON THE SOUTH 38 FEET OF LOTS 19-21, BLOCK 40 AT 273 WEST NEW ENGLAND AVENUE, MORE PARTICULARLY DESCRIBED HEREIN, PROVIDING FOR CONFLICTS, SEVERABILITY AND AN EFFECTIVE DATE.

WHEREAS, the owners of property at 273 W. New England Avenue have requested a zoning map amendment consistent with the amended Comprehensive Plan, and such municipal zoning meets the criteria established by Chapter 166, Florida Statutes and pursuant to and in compliance with law, notice has been provided to the public by publication in a newspaper of general circulation and city-wide notice mailed to all households in the city to notify the public of this proposed Ordinance and of public hearings to be held; and

WHEREAS, the Planning and Zoning Board of the City of Winter Park has recommended approval of this Ordinance at their January 9, 2024 meeting; and

WHEREAS, the City Commission of the City of Winter Park held a duly noticed public hearing on the proposed zoning change set forth hereunder and considered findings and advice of staff, citizens, and all interested parties submitting written and oral comments and supporting data and analysis, and after complete deliberation, hereby finds the requested change consistent with the City of Winter Park Comprehensive Plan and that sufficient, competent, and substantial evidence supports the zoning change set forth hereunder; and

WHEREAS, the City Commission hereby finds that this Ordinance serves a legitimate government purpose and is in the best interests of the public health, safety, and welfare of the citizens of Winter Park, Florida.

NOW THEREFORE BE IT ENACTED BY THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA, AS FOLLOWS:

SECTION 1. Official Zoning Map Amendment. That Chapter 58 "Land Development Code", Article III, "Zoning" and the Official Zoning Map is hereby amended so as to change the zoning designation of Medium Density Multiple Family Residential (R-3) District to CBD (C-2) District zoning on the south 38 feet of Lots 19-21, Block 40, Revised map of the Town of Winter Park, as recorded in Plat Book "A", Pages 67-72, otherwise identified as the south 38 feet of 273 W. New England Avenue.

SECTION 2. Severability. If any Section or portion of a Section of this Ordinance proves to be invalid, unlawful, or unconstitutional, it shall not be held to invalidate or impair the validity, force, or effect of any other Section or part of this Ordinance.

SECTION 3. Conflicts. All Ordinances or parts of Ordinances in conflict with

any of the provisions of this Ordinance are hereby repealed.

SECTION 4. Effective Date. This Ordinance shall become effective upon the adoption of this Ordinance.

ADOPTED at a regular meeting of the City Commission of the City of Winter Park, Florida, held in City Hall, Winter Park, on this _____ day of _____, 2024.

Mayor Phillip Anderson

Attest:

Rene Cranis, City Clerk

Prepared by and return to:
Catherine D. Reichmann, Esq.
Brown, Garganese, Weiss & D'Agresta, P.A.
P.O. Box 2873
Orlando, FL 32802-2873

DOC# 20110106240 B 10178 P 8948
03/01/2011 08 36 10 AM Page 1 of 16
Rec Fee \$137 50
Deed Doc Tax \$0 00
DOR Admin Fee \$0 00
Intangible Tax \$0 00
Mortgage Stamp \$0 00
Martha O. Haynie, Comptroller
Orange County, FL
SA - Ret To BROWN GARGANESE WEISS & D
SA

SETTLEMENT AGREEMENT

This Settlement Agreement ("Agreement") is entered into this 14th day of February, 2011, between the **City of Winter Park, Florida**, a municipality, 401 Park Avenue South, Winter Park, FL 32789, ("City"), and **New England Partners, LLC**, a Florida limited liability company, P.O. Box 2456, Winter Park, FL 32790, ("New England"), as follows

WITNESSETH

WHEREAS, New England is the owner of certain real property (the "Property") on Welbourne Avenue and New England Avenue in the City, being more particularly described in Exhibit "A" attached hereto

WHEREAS, for purposes of this Agreement, the Property will be referred to as the property at 316 W Welbourne Ave. (the "Welbourne Property"), and the property abutting New England Ave. (the "New England Property")

WHEREAS, in the 1991 Comprehensive Plan, the Welbourne Property was designated Multi-Family Residential with R-3 zoning, and this Comprehensive Plan designation allowed either R-3 or R-4 zoning, and had no limitation on the location of parking garages. If New England had requested and received approval for rezoning the Welbourne Property to R-4 before the 2009

Comprehensive Plan amendments then up to 25 units/acre would have been allowed

WHEREAS in the 2009 Comprehensive Plan and the 2010 Land Development Code the Welbourne Property was designated Medium Density Residential and zoned R 3 which allows a maximum of 110% FAR and a maximum of 17 units/acre The only compatible zoning is R-3

WHEREAS in 2010 the City adopted Land Development Code Sections 58-71(jj) and 58-84(bb) which provide that any above grade parking garage or parking deck shall be setback at least 100 feet from any property used for single family or low density residential

WHEREAS in a 1995 amendment to the Comprehensive Plan the New England Property was designated Commerce as the future land use designation and under the 1991 Comprehensive Plan this designation allowed 45% FAR

WHEREAS in the 2009 Comprehensive Plan the New England Property was designated Commercial which now allows up to 17 units/acre and up to 100% FAR and C 3 is the only compatible zoning district

WHEREAS for the New England Property in the 2010 Land Development Code the third floor must be residential

WHEREAS the City is unable to determine the actual impact on New England of any of the changes to the Comprehensive Plan and the Land Development Code without the benefit of an actual development application which demonstrates the actual achievable density for the Property

WHEREAS on May 10 2010 the parties entered into a Tolling Agreement tolling New England's claim under Fla Stat 70 001 the Bert Harris claim to allow the parties time to discuss possible settlement of the matter

WHEREAS New England seeks damages as a result of a burden New England has alleged on its ability to develop the Property as originally contemplated prior to the City's 2009 Comprehensive Plan and 2010 Land Development Code changes The City denies both the existence of a valid Bert Harris Claim and all liability that may arise from any Bert Harris claims raised by New England

WHEREAS the parties desiring to amicably resolve the issues in the Bert Harris claim have engaged in settlement negotiations relative to same

WHEREAS after having consulted with attorneys and consultants of their choice the parties desire to amicably resolve their differences to avoid expensive and protracted litigation

WHEREAS New England and the City agree to enter into this Agreement as full and complete resolution of all issues regarding the Bert Harris claim and to provide for the mutually acceptable redevelopment of the Property

WHEREAS this Agreement is authorized by the Charter and code of the City and by Fla Stat 70 001 even though suit has not yet been filed *Charlotte County Park of Commerce LLC v Charlotte County* 927 So 2d 236 (Fla 2d DCA 2006)

WHEREAS the City has determined with New England's agreement that the terms of this Agreement protect the public interest served by the City's

Comprehensive Plan and Land Development Code and this Agreement allows the City to avoid protracted expensive litigation and the possibility of a large judgment including the payment of New England's attorneys' fees the cost of which would be a burden on all taxpayers in the City

WHEREAS the City has determined with New England's agreement that the terms of this Agreement constitute the appropriate relief necessary to prevent the 2009 Comprehensive Plan and the 2010 Land Development Code amendments from inordinately burdening the Property

NOW, THEREFORE, in consideration of the terms and conditions set forth herein the parties agree as follows

1 **Incorporation of Recitals** The recitals set forth above are true and accurate and are hereby incorporated herein

2 **New England Property Land Use** Regarding the New England Property the City agrees to process New England's application to change the future land use to CBD and the zoning to C-2 The parties agree that the application shall follow the standard notice and hearing procedures The future land use shall be processed first The City agrees to waive all application fees The City acknowledges that C-2 is the only zoning category consistent with CBD land use per Table 2 Chapter 1 of the City's Comprehensive Plan

3 **Welbourne Property Land Use** Regarding the Welbourne Property the City agrees to an interpretation of Sections 58-71(jj) and 58-84(bb) of the City's Land Development Code That Section's reference to parking garage shall mean a multi-level parking garage structure designed for

commercial use and not a parking garage that is one level and part of a residential dwelling

4 **Welbourne Property Intensity** Regarding the Welbourne Property in light of New England's expenditures toward development of the Property prior to the recent Comprehensive Plan Change the City Agrees in order to settle the claim to allow maximum density of 25 units per acre so long as the R 3 zoning standards are met in all other respects In other words the Welbourne Property may develop with R-4 density (25 units/acre) subject to R 3 development standards

5 **Conditions of Effectiveness of Agreement** If approval of the Comprehensive Plan amendment and rezoning for the New England Property is not granted by the City or is challenged by an independent third party then this Agreement will be null and void and of no force and effect and the parties shall return to their former positions under the Tolling Agreement Further the parties rights positions defenses and claims in the Bert Harris Claim shall not be affected by having entered into this Agreement or by the Agreement having been voided pursuant to the provisions of this paragraph

6 **Tolling Agreement** The Tolling Agreement shall remain in effect during the pendency of the approval process for the New England Property If the approval is not granted the Tolling Agreement shall continue in accordance with its terms

7 **Release and Waiver** As a material inducement for the City to execute this Agreement New England for and on behalf of themselves and their

respective existing past and/or future partners managers employees and independent agents shareholders members officers directors including their respective successors and assigns do hereby now and forever jointly and severally release relinquish waive discharge acquit satisfy and forever discharge the City from any and all claims actions causes of action damages and costs and liability whatsoever in law or in equity whether presently known or hereafter discovered absolute or contingent which New England ever had now has or hereafter may have against the City based upon pertaining to relating to or arising out of the City's 2009 Comprehensive Plan or the 2010 amendments to the Land Development Code the application of the plan and code changes to New England's Property or the validity constitutionality or enforceability of the City's 2009 Comprehensive Plan or the 2010 amendments to the Land Development Code New England acknowledges that it is signing this Agreement with full knowledge of any and all rights it may have and that it is not relying upon any representations or warranties made by the City and New England hereby assumes the risk of any mistake of fact now known or unknown to New England

8 **Effective Date** This Agreement shall become effective as of the date it is approved by the City Commission of the City and is executed by the appropriate official of the City and New England Properties (the Effective Date)

9 **Enforcement** In the event of a default of this Agreement and as a condition of any party exercising any enforcement remedies the non defaulting party shall provide written notice of the default to the defaulting party The

defaulting party shall have ninety (90) days from receipt of such notice to cure such default. If the defaulting party fails to cure within ninety (90) days, then the non defaulting party shall be entitled to seek specific performance and injunctive relief and shall be entitled to an order of the court to enforce this Agreement and other equitable relief as the court may deem just.

10 **Notices** All notices and other communication as required or permitted to be given hereunder shall be in writing and shall be mailed by certified or registered mail, postage prepaid, or by Federal Express Airborne Express or similar overnight delivery service, addressed as follows:

If to City
City of Winter Park
401 Park Avenue South
Winter Park, FL 32789
Attn: City Manager
Telephone: 407-599-3245

With copies to
Brown, Garganese, Weiss & D'Agresta, P.A.
111 N. Orange Ave., Suite 2000
Orlando, FL 32801
Attn: City Attorney
Telephone: 407-425-9566

If to New England
New England Partners, LLC
P.O. Box 2456
Winter Park, FL 32790
Attn: Managing Member

With copies to
Rebecca Furman, Esq.
215 North Eola Drive
Orlando, FL 32801

11 **Further Representations and Warranties** New England hereby represents and warrants that (a) New England and its general partners are each

in good standing under the laws of the State of their formation (b) New England is duly authorized to transact business in the State of Florida and (c) New England and its general partners have taken corporate and partnership action necessary to authorize this Agreement The City hereby represents and warrants that the City has the power to enter into this Agreement The parties mutually represent and warrant that this Agreement has been duly authorized by the City pursuant to the City Charter City Code and is in accord with Florida law in effect as of the Effective Date

12 **Miscellaneous**

a **Construction and Governing Law** This Agreement was drafted by all parties and therefore any ambiguity shall not be construed against any party In addition this Agreement has been executed and delivered in and should be interpreted construed and enforced pursuant to and in accordance with the laws of the State of Florida

b **Counterparts** If multiple counterparts of this Agreement are executed each shall be deemed an original but all counterparts together shall constitute one and the same instrument

c **Headings** The section and paragraph headings contained in this Agreement are for reference purposes only and shall not affect in any way the meaning or interpretation of this Agreement

d **Entire Agreement** This Agreement sets forth all the promises agreements conditions and understandings among the parties hereto as to the subject matters referenced herein and supersedes all

prior and contemporaneous agreements understandings inducements or conditions expressed or implied oral or written except as herein contained

e **Assignments/Binding Nature** This Agreement will be binding upon and shall inure to the benefit of the City and New England and each party's subsidiaries affiliates successors and assigns Further the parties agree that they will not challenge the adoption of or the validity constitutionality or enforceability of the provisions contained within this Agreement New England shall have a right of assignment of rights and obligations under this Agreement but New England agrees not to assign its rights and obligations under this Agreement unless the transferee shall execute and deliver to the City a consent to be bound by the terms and conditions of this Agreement which consent shall be in substantially the form attached hereto as Exhibit B

f **Amendments** No change in or addition to this Agreement shall be enforceable unless evidenced by a writing executed by the parties Any such enforceable amendment(s) shall become effective on the date stipulated therein

g **Release and Waiver** Any condition to a party's obligation hereunder may be waived by that party provided such waiver is in writing However the waiver by any party of a breach or violation of any provision of this Agreement shall not operate as or be construed to be a waiver of any subsequent breach of the same or any other provision hereof The

failure by any party to timely enforce any of the provisions of this Agreement shall not be deemed a waiver thereof

h **Invalidity** If any section phrase or portion of this Agreement is for any reason held invalid or unconstitutional by any court of competent jurisdiction such portion shall be deemed a separate distinct and independent provision and such holding shall not affect the validity of the remaining portions hereof In the event this Agreement is invalidated by a third party then the parties hereto shall be returned to their respective legal positions as such existed on the date on day prior to the Effective Date of this Agreement

i **Integrated Agreement** Each party's obligations hereunder are dependent upon performance of the material obligations of the other party

j **Third Party Challenges** In the event that this Agreement is invalidated by a court of competent jurisdiction as a result of a challenge instituted by a third party all the rights of obligations of the parties hereto shall terminate and be of no further force and effect including without limitation any claim by New England for vested rights arising under this Agreement Further in the event this Agreement is terminated under this provision the parties hereto shall then be returned to their respective legal positions as existing on the Effective Date

k **Compromise of Disputed Claims** The parties acknowledge that this Agreement is a compromise and resolution of the

disputed claims and agree that neither this Agreement nor any action taken in furtherance of this Agreement shall ever be treated as an admission or evidence of liability by any of them for any purpose whatsoever nor shall it be admissible in Court

l **No Third Party Beneficiaries** This Agreement is intended for the sole benefit of the parties and their subsidiaries affiliates successors or assigns No other person or entity shall have any right of action hereunder or be deemed to be a third party beneficiary of any provision contained herein

m **Attorneys' Fees and Costs** Each party agrees to bear the expense of its own attorneys fees and costs in connection with the settlement of New England's Bert Harris claim and with the negotiation and preparation of this Agreement In the event a dispute or litigation arises in connection with this Agreement neither party shall be entitled to the recovery of attorneys fees or costs incurred in connection therewith whether suit be brought or not It is the specific intent of both the City and New England that each party to this Agreement bear its own attorneys fees and costs Should this Agreement become null and void under Paragraph 4 then Fla Stat §70 001 shall govern the award of attorneys fees

n **No Precedent** This Agreement does not create a precedent obligating the City to enter any other contract as to settle any other matter consistent with subsection l hereinabove

IN WITNESS WHEREOF, the parties hereto have executed this Agreement
this 15th day of FEBRUARY 2011

WITNESSES

Troy Stevens
Printed name Troy Stevens

NEW ENGLAND PARTNERS, LLC
a Florida limited liability company

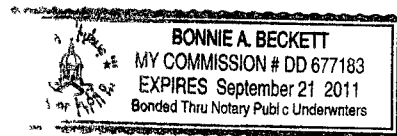
By [Signature]
Printed name ROBERT P HOLD
Title MANAGING MEMBER

[Signature]
Printed name Jean Ferland

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 15th day
of FEBRUARY 2011 by ROBERT P HOLD the
MANAGING MEMBER of NEW ENGLAND PARTNERS LLC a Florida limited
liability company (check one) ☒ who is personally known to me or ☐ who
produced _____ as identification

Bonnie A Beckett
Notary Public – State of Florida
Print Name BONNIE A BECKETT
My Commission expires 09/21/2011



CITY OF WINTER PARK

Kenneth W. Bradley
Kenneth W Bradley Mayor

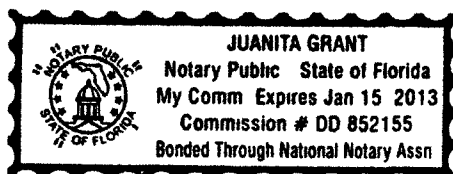
ATTEST

Cynthia Bonham
Cynthia Bonham
City Clerk

Date 2-15-11

STATE OF FLORIDA
COUNTY OF ORANGE

The foregoing instrument was acknowledged before me this 15th day of FEBRUARY 2011 by Kenneth W Bradley Mayor of the CITY OF WINTER PARK a Florida municipal corporation (check one) ☒ who is personally known to me or ☐ who produced _____ as identification



Juanita Grant
Notary Public – State of Florida
Print Name JUANITA GRANT
My Commission expires _____

G:\D ICty fW t P kLa d Development\Legal Challenge to La d D l pme tCode & Comp Plan\Tolling Agr em t W w E gl d Part s\Settlement Agreement 2 10 11 clean d

LEGAL DESCRIPTION

Lots 9 10 11 and 16 Block 40 REVISED MAP OF THE TOWN OF WINTER PARK according to the plat thereof as recorded in Plat Book A Pages 67 through 72 inclusive Public Records of Orange County Florida together with the North half of the alley vacated by the City of Winter Park by instrument recorded in Official Records Book 3663 Pages 2787 and 2788 abutting the South lot line of Lots 9 10 11 and 16

EXHIBIT "A"

EXHIBIT B
[Proposed Consent by Transferee]

AGREEMENT OF TRANSFeree

Under this Agreement of Transferee made this _____ day of _____

(Transferee) acknowledges and agrees as follows

1 Transferee acknowledges that _____
[New England Partners LLC or identity of New England Partners LLC successor in interest who owns the property at the time of this agreement of Transferee] is transferring the property located at 316 W Welbourne Avenue Winter Park Florida ('Property ') to Transferee as reflected in Exhibit _____

2 Transferee acknowledges that New England Partners LLC and the City of Winter Park have entered into an Settlement Agreement dated as of _____ (copy attached) and recorded in O R Book _____ Page _____ Public Records of Orange County Florida which related to the settlement of a Bert Harris claim concerning the Property Transferee acknowledges having received a copy of said Settlement Agreement and understands all of the terms provisions conditions and limitations of that Settlement Agreement

3 In consideration for receiving the benefits of the transfer of the Property and for other good and valuable consideration the receipt and sufficiency of which is hereby acknowledged Transferee agrees to be bound by all of the terms provisions conditions and limitations of that Settlement Agreement as the same may apply to the Property owned by me or in which I have an interest including the condition that the undersigned Transferee obtain this same agreement from any subsequent transferee

(print name)

Jeffrey Briggs

From: Michael Dick <mtdwpfl@gmail.com>
Sent: Tuesday, January 2, 2024 6:27 PM
To: Jeffrey Briggs
Cc: Rene S Cranis
Subject: [External] Rollins W. Welbourne Staff and Faculty Apartments Development Application

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear Planning & Zoning Board Members:

My name is Michael Dick and I live at Douglas Grand, 100 S. Virginia Ave., #407, Winter Park. Douglas Grand is a 68 unit, mixed-use condominium directly across the street from the proposed Rollins Staff and Faculty Apartments on W. Welbourne Ave.

BACKGROUND

Following receipt of the citywide notice announcing the Rollins apartments, I contacted Rollins' Sam Stark to request a meeting between the Rollins Team and interested Douglas Grand owners. The Rollins Team (Sam Stark, Rebecca Wilson, Randall Slocum) and approximately 20 Douglas Grand owners attended a meeting on December 19, 2023. The Rollins Team delivered a slide presentation and addressed questions and concerns expressed by Douglas Grand attendees and agreed to meet again if requested.

COMPATIBLE BUT COMPARABLE?

I would be disingenuous to say I'm pleased with the probability of attainable/workforce apartment buildings next to Douglas Grand condominiums. Although currently vacant aside from the existing DH Apartments, this site formerly contained single family homes. These lots were very briefly offered for sale a year ago by Rollins but quickly taken off the market. Rollins presents the faculty apartments as compatible with the surrounding neighborhood but the only compatibility is they provide shelter. Beyond that, these proposed staff and faculty rental units are far from comparable to Douglas Grand condos as follows:

- All of the residential units in Douglas Grand are 3 bedroom/3 bath units, averaging 2,400 sq. ft., with recent resale values averaging \$1.2M with the few investor rentals of \$5-6,000 per month. The proposed Rollins apartments are 1-3 bedroom/1 bath units, averaging 1,217 sq. ft. (905 sq.ft. for a 1 bedroom), and monthly rent maybe less than \$2,000?.
- Douglas Grand has a parking garage offering almost 4 parking spaces per unit with little or no on-street parking necessary for its residents. The Rollins' site plan provides less than 2 spaces per residential and commercial unit (97 vs. the 100 Staff deems reasonable), thereby relying heavily on on-street parking and far from the required number of spaces per code (124).
- Douglas Grand's precast concrete/block construction is solid and durable, drastically contrasting with the Rollins apartments frame construction. We were advised by the Rollins Team that the Mediterranean architectural features and sound quality construction visible on the Rollins campus would be exported to this Welbourne property. I don't believe you'll find too many frame structures on campus, even the recently approved 300 unit student dorm, which I suspect is not entirely frame construction. And, the only Mediterranean architectural

features noticeable in the conceptual drawings are a few red, barrel tile roof overhangs. Window awnings, if fabric, will also fade after several years and don't represent the enduring attention to detail found in Rollins campus buildings. While I recognize that block construction adds an additional 20% to construction costs, this cost will be covered sooner with more than twice the permitted number of units paying rent moving forward. When I sat on the Planning & Zoning Commission years ago, we rarely opined on the method of construction of an applicant's improvements. In this case, however, the combined realities of frame construction, excessive number of significantly smaller units, and less than the required number of parking spaces, threaten to degrade the values of Douglas Grand condominiums.

The Rollins Team is asking the City for some pretty big concessions to enable this affordable rental housing project. The City would be able to put a huge check in the Comp Plan and GOPs box by approving workforce housing at this site. I don't want to be a NIMBY spoiler. I would prefer to welcome these new neighbors and support the City's initiatives but Rollins and the City must recognize and accept that Rollins' proposal as submitted clearly diminishes the values and lifestyles of Douglas Grand citizens and certain changes must be made to the plan to bring the project more in parity with Douglas Grand.

STAFF REPORT / APPLICATION SUBMISSION REQUIREMENTS

Rollins is requesting 28 more units than permitted. The one redeeming factor in considering this rather large "ask" by Rollins is the intensity of the project remains within the allowable FAR of 110%.

Rollins is requesting that the maximum 2 1/2 story code requirement along Welbourne Ave. be abandoned, allowing for 3 stories. This appears a reasonable request and provides less architectural challenges for that elevation, even though that concession increases the unit count.

Staff advises that the City has relaxed the code mandated 2.5 parking spaces per unit by requiring only 2 spaces per unit based on precedence with other developments in the Hannibal Square district. So, instead of requiring a total of 124 spaces (inclusive of the commercial components), Staff suggests that 100 spaces on this site is reasonable, yet the site plan yields only 97. Furthermore, this entire site has several protected trees and I haven't seen the required tree survey for this property (has one been done as required?). While some of these trees may well be in the way of hard construction and are allowed to be removed, it's possible, if not probable, that one or more of these trees are located on the fringe of the parking lot and will need to be protected. In this event, there may be further parking spaces removed from this challenged deficit.

Douglas Grand owners have also not reviewed signage, lighting and landscape plans if they've been provided as required, and reserve the opportunity to offer input once they are made available to the public.

REQUESTED MODIFICATIONS & REQUIREMENTS TO ROLLINS' APPLICATION

In order for me, and probably most other Douglas Grand owners, to accept the many concessions and departures from City codes and ordinances to enable this project, the Planning & Zoning Board is respectfully requested to require Rollins to incorporate the following changes to their development plan for this site:

- As recommended by Staff, please require that indented/recessed parking spaces be required along W. Welbourne Ave. with treed islands similar to Orange Ave. Furthermore, please restrict on-street parking in front of the Douglas Grand garage entrance on Welbourne to facilitate roll out dumpster trash pickup and congestion at that location with service vehicles and parked cars.
- Please require that Rollins utilizes block vs. frame construction for these apartments.
- Since a number of Douglas Grand units will look down on the project's roofs which will house air conditioning condensers and perhaps solar panels, please require that some degree of aesthetic buffering be provided, perhaps similar to those required of the Alford Inn to benefit adjacent units' rooftop view from the Residences.

- I suspect some of the preferred yet absent Mediterranean architectural features such as arched windows and entrances, wrought iron window and balcony treatments, parapet and cornice embellishments, earthy Mediterranean colors, etc. are absent due to budget restrictions on the architect. Please challenge the Rollins Team to enhance the appearance of the buildings.
- Please recommend to the City Commission that the following concerns/conditions be memorialized in a development agreement or recorded deed restrictions vs. mere inclusion in rental lease provisions which are subject to change:
 1. Definitions of "staff" and "faculty" be provided as relates to the current and future tenants of the apartments.
 2. The apartments will remain as staff and faculty housing in perpetuity and never be reverted to student dorms or converted to condominiums unless allowed through City protocol and requiring a super majority vote of the City Commission.
 3. All window coverings visible from the outside must be uniform and made of a durable quality material. Douglas Grand's unit window coverings, for example, are white durable wood shutters. Nothing shall be affixed to any window panes. A noticeable number of Rollins campus dorm windows display a mix of tangled venetian blinds, blankets, solid shades, etc. with personalized displays taped to window panes- not what Douglas Grand owners nor any other citizen in this price point would want to view from across the street.
 4. No materials/items will be stored on balconies aside from customary balcony furniture and potted plants.

Thank you for your consideration and aligning with Douglas Grand owners and other neighbors to make this the best project for the City, its citizens and Rollins.

Respectfully submitted,

Michael Dick
 407-474-6186
mtdwpfi@gmail.com

Michael Dick
mtdwpfi@gmail.com
 407-474-6186

Jeffrey Briggs

From: mgbutner@gmail.com
Sent: Tuesday, January 2, 2024 6:39 PM
To: Jeffrey Briggs; Rene S Cranis; Mayor and Commissioners
Subject: [External] Rollins Proposed Subsidized Housing

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Good evening. My name is Mark Butner and my address is 325 W. Welbourne or across the street from where Rollins would like to build a 48 unit subsidized housing complex. I am 61 ½ years old, a 4th generation Floridian and I have lived in the Winter Park area for 61 years. I attended Audubon Park elementary, Glenridge junior high, Winter Park high and UCF. I worked on Park Avenue at East India Ice Cream for 2 years while I was in college. Needless to say, I believe I have a pretty good appreciation for what the City of Winter Park has to offer its citizens and visitors and an understanding of what makes our City so special.

I do not agree with the staff recommendation that this project is appropriate (my Apologies to Mr. Briggs). Ordinarily, the code would only allow for 17 units on this property, but there are some unique circumstances that would allow Rollins to “squeeze in” 48 units. Primarily because the total square footage is ~ 81K or 103.8% of the FAR. The average square footage for each unit is ~ 1,200. The average square footage of the Douglas Grand condominiums across the street is ~ 2,500, or twice as big. While I am sure Rollins will benefit from this project, I fail to understand how the City will benefit.

- The tenants will be transient, as defined by not long term.
 - I can’t imagine short term residents being very civic minded.
 - The tenants will have no “vested” interest in maintaining the property (and neither does Rollins based on how well they maintain their current off campus housing).
 - The tenants will be of low to moderate income (why they are living in subsidized housing) and not the target demographic for the upscale restaurants and shops on Park Avenue and in the Hannibal area (no benefit to the local merchants).
1. The project is seeking a change to the comprehensive land plan to allow for 3 stories along W. Welbourne (vs. 2.5 in the code). Allowing for this height will make W. Welbourne feel like a “tunnel”, which I doubt is in the best interest of the City.
 2. The code requires 2.5 parking spaces / unit. The project is requesting approval for only 2 spaces / unit. The staff believes there is enough on street parking to compensate for the overflow and precedence based on other approved projects. What the staff doesn’t realize is the current on street parking is utilized most of the time. We all know the City has a parking problem. Why would the City miss out on a opportunity to enforce the code and help keep our parking problem “neutral” vs. making it worse. The staff believes some of these units will have less than two cars. I would argue some units will have 3 or 4 cars, more than offsetting the units with only one car.

These 2 requests will set or continue to set the precedence for future projects in this corridor (e.g. if for some reason a developer is able to purchase the Post Office property). Please follow the code.

Please consider whether or not you would purchase a \$1M residence across the street from what will be at best an average maintained, subsidized apartment complex.

I have two final thoughts;

1. I'm confused by how the City benefits from this project and,
2. If this was a referendum on a ballot and put to a City wide vote, I'm sure it would not pass.

Sincerely,

Mark Butner

Jeffrey Briggs

From: Priscilla Church <pc0113@gmail.com>
Sent: Wednesday, January 3, 2024 9:56 AM
To: Jeffrey Briggs; rcranis@cityofwinterpark.or
Subject: [External] Rollins W. Welbourne Staff & Faculty Apartment Development Application

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear Planning & Zoning Board Members:

My name is Priscilla Church and I live at the Douglas Grand, 100 S Virginia Ave, Winter Park, FL 32789. As you are probably already aware, the Douglas Grand is directly across the street from the proposed development.

I attended the meeting between the "Rollins team" and Douglas Grand owners on December 19, 2023. Rollins is a great asset to the Winter Park community. I appreciated the time in providing an overview of the project and listening to owner concerns regarding the development of this property. I am hopeful that as a good neighbor, Rollins will address these concerns. If not, I am asking that members of P&Z hold Rollins accountable.

Understandably, I am disappointed that a subsidized housing facility is planned adjacent to our million dollar plus home. Nonetheless, it is the appearance of the rental facility that makes it even more distasteful. It is not at all in keeping with our classic Winter Park architecture. In addition, it will create more traffic congestion and parking issues in the area. This is a constant issue for the Winter Park central business district. Why would we exacerbate these issues by approving a multi-family rental development with insufficient parking? Rollins's presentation claims that this development will "remove the need for vehicles in/out of congested WP roads" is duplicitous. The presentation also touted "feet on the street for merchants." I seriously doubt that individuals who must live in an apartment with "below market rents" (Rollins's words) will be doing any significant shopping and dining on Park Avenue.

In order for this project to be more palatable to me and other Douglas Grand owners (based on meeting feedback to Rollins), following are issues I would like to see addressed:

- Modify the appearance of the building to look more upscale and in keeping with classic Winter Park architecture. It currently looks like low income housing and is being built using the cheapest type of construction.
- Address the parking and traffic issues this development will create. The rendering depicting Welbourne Avenue as a wide boulevard is laughable. It is usually a one-lane road with cars parked on one side.
- Provide a landscape plan in addition to what is planned for lighting and signage. Lush, well-maintained landscaping can make a huge difference in the property appearance.
- Ensure that a development agreement defines "staff" and "faculty" and this rental property will remain as such and can never revert to student housing or be converted to condominiums.
- Include in the development agreement quality, uniform window coverings and restrictions on items hung/stored on balconies.

Thank you for your consideration of my suggestions to ensure that this project does not cause devaluation of the Douglas Grand and increase current parking and traffic issues in the surrounding area. My interest is that this project be the best for the city of Winter Park and its citizens by holding Rollins to the high standards it promotes on campus.

Best regards,

Jeffrey Briggs

From: Charles Mcmenamin <chaz070@yahoo.com>
Sent: Thursday, January 4, 2024 6:01 PM
To: Jeffrey Briggs
Cc: Rene S Cranis
Subject: [External] Rollins Staff & Faculty Housing

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear Members of Planning Board :

My name is Charles McMenamin and I am an owner in the Douglas Grand (DG) . My street address is 100 South Virginia Avenue Unit 405 Winter Park Florida .

My telephone number is 407 619 9512.

My condominium which is located on Welbourne Street faces the lot that Rollins plans to build their housing. Aside from the changes to the Comprehensive Plans that got my attention , I want to share with you concerns and suggestions from a couple who moved to Winter Park 13 years ago using our savings to purchase a retirement home in the highly recommended city of Winter Park .

At time of purchase , we were aware that Rollins College owned the property that we would view from our residence and that did not concern us based on the reputation that Rollins established. The lot has remained vacant and recently Rollins advertised the lots for single family luxury homes . Evidently, they believed that the homes would blend in with the DG . The offer was withdrawn.

In the recent past , a friend who was interested in purchasing a home in the DG asked me about plans for the property across the street . I told them that I would inquire and contacted the Property Management office at Rollins . I was told that Rollins had no immediate plans but suggested I view the Rollins campus . I informed the rep that I was familiar with the campus and the block construction coupled with a mix of architectural designs and the rep replied ... that is how we build at Rollins so I should not be concerned !

So , we were not concerned until we received the Public Notice of the proposed housing with a design that is best described as generic or non Rollins type . Certainly , you all can appreciate our concern with our retirement investment when you consider the following items.

- The DG recorded recent sales averaging in the \$ 1.2M range and currently rents the few rentals for \$5 -6K per month vs an estimated \$2K per month for the Rollins rentals . Our units average 2400 sq.ft. with 3 bedrooms / 3 baths compared to an average 1217 sq.ft. and 1-3 bedrooms for the proposed Rollins .

- The Rollins apartment frame construction is dramatically different from the DG precast concrete / block construction. Their design as submitted opposes their rep comment relative to how they build at Rollins !

We were grateful when the Rollins team agreed to meet with us . However , the concern to our lifestyle and financial impact on property value combined with parking and 3 vs 2 story building

were issues that we discussed . Certainly , the need to resolve these and other issues must be resolved prior to proceeding relative to memorializing that the property can never be changed to student dormitories and restrictions on items permitted on balconies and uniform window treatments .

In summary, we look forward to someday welcoming Rollins as neighbors and ask that each of you consider the thoughts and concerns of two retirees as well as the other owners of the DG when you evaluate the plans as submitted .

Respectfully

Charles & Rosemarie McMenamin

Jeffrey Briggs

From: Fred Fischer <fischerets@gmail.com>
Sent: Friday, January 5, 2024 3:22 PM
To: Jeffrey Briggs
Subject: [External] Proposed development project for faculty and staff

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Recently we attended a meeting between the residents of Douglas Grand and Rollins College. We live in Douglas Grand, and we have always admired the integrity of Rollins in regard to their architecture. It has always appeared substantial and nicely designed. It is a lovely campus.

You can imagine our disappointment when we saw what Rollins is proposing for their faculty and staff housing across the street from our Douglas Grand building. Our building is built like a fort! The units have 3 bedrooms, 3 baths, and approximately 2700 square feet. Rollins has proposed a housing plan made of wood construction, too many units, and inadequate parking. In other words, it looks like low income housing.

The traffic along Welbourne and South Virginia is already very busy, and the streets are not wide enough for 3 cars side-by-side. Consequently, if there is parking on one side, only one car can pass, and often cars from the opposite direction must wait. Even if the roads were wider and parking were restricted to only one side the street, the Rollins plans, which rely on additional on-street parking, are clearly untenable. Because of the added congestion and the other objections mentioned above, there appear to be no positive reasons why your proposal to replace a beautiful open field with a congested housing development would be a great idea. Also we fear that the value of our condo would be in serious jeopardy.

Respectfully,
Fred Fischer and Barbara Russo
100 S.Virginia Ave ,Unit 202
Winter Park, FL 32789

Jeffrey Briggs

From: Robert Higgins <rfhadr@icloud.com>
Sent: Wednesday, January 3, 2024 5:47 PM
To: Jeffrey Briggs; Rene S Cranis
Cc: Robert Higgins
Subject: [External] Fwd: Rollins College Proposed Faculty and Staff apartments

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Memo to the Members of the Winter Park Planning and Zoning Board and Jeff Briggs, Planning Director Emeritus of the City of Winter Park Planning Department:

I am Robert Higgins, an owner of Unit 404 in the Douglas Grand Condominium. My street address is 100 S. Virginia Avenue, Winter Park, Florida. My telephone number is 321-972-4804. My residence is located in that portion of Douglas Grand located on Welbourne Street, which means that my unit along with 23 other residential units will face the apartment house proposed to be constructed by Rollins College along Welbourne and New England Avenues. If you will indulge me, I would like to make a few comments, criticisms and suggestions regarding the project proposed by Rollins, the significant changes that Rollins has requested to the City's Comprehensive Plans and the concessions apparently already made to Rollins by the City's Planning Department. These are my comments, but they are shaped in part by comments/concerns raised by many of my neighbors in Douglas Grand (DG).

Before beginning, I would state that I have no animus to Rollins College and have been a fan of its programs and athletic teams and understand the value in attending a smaller liberal arts school, having attended one myself. But, that being said, any expansion by the College must fit with the character of the existing structures where it wants to build and expand (I believe that statement essentially paraphrases a portion of the City's Comp Plans regarding expansion by the college), must make sense and not create economic damage to its future neighbors.

My points/comments/concerns and suggestions (if you will indulge me), and in no particular order, are:

1. I understand that Rollins and Staff are amenable to reducing the proposed property set-back line on Welbourne to allow the widening of the street and the construction of indented/recessed parking with treed bump-outs, similar to the layout of Orange Avenue. The trees would also be consistent with the trees on the DG side of the street. Also, the widening of Welbourne, even if a few feet, would lessen the potential for auto accidents along the street. It can be challenging to maneuver past large approaching vehicles when motoring on Welbourne. This would work to everyone's advantage, I believe. Residents of DG have also ask the Rollins design team to provide for, and would request that the City approve, a "no-parking" zone across from the entry/exit driveway to DG located on Welbourne. Too often large vehicles are parked across from the gates making it difficult for DG vehicles to safely exit or enter the building.

2. There is concern that Rollins will not have adequate on-site parking for the apartments. As the property is zoned R-3, I believe the Code requires 2.5 parking spaces per each apartment. So for 48 proposed

units, 120 are required. But, it appears the P&Z Staff is willing to allow Rollins to have only 100 parking spaces. It is hard to count the spaces from the printed material distributed by Staff, but it appears to show only 94, or so, spaces. And, if the City is going to require Rollins to build some small commercial spaces on New England, where are the customers of those businesses to park? In the spaces dedicated to residents? And, none of this addresses the likely-hood that some residents may have more than two vehicles and what about the inevitable visitors and guests of the residents? Where are they too park? Rollins touts this project as allowing faculty and staff to walk or bike to the campus, meaning that vehicles will for the most part remain on-site during the day. Relying on street parking for over-flow can be risky. Sometimes there are spaces on New England, Virginia and Welbourne, but often there are not. This is especially so on weekends and and at night when folks visit the restaurants and bars on West New England. There is a reason that the Code requires 2.5 spaces per apartment for multi-family residential properties. This requirement should not be waived.

What to do? Only allow the construction of a two story building? That would alleviate many likely problems. Not require Rollins to build and operate a coffee shop and book store on New England? This is more Rollins' fight than DG's, but as an observation these proposed commercial operations are not likely to be sustainable on their own and will likely need underwriting by the college. And, there is already a nice coffee shop a block west on New England. Not requiring the commercial operations could ease the inevitable parking issues.

3. Not to be too crass, but it is important to emphasize that there is considerable concern among the 42 DG residential owners about the negative financial impact on the value of their residential units caused by the construction of the apartments according to the present design. This concern is shared by the DG residential owners with units that face New York and Morse Avenues, as well as those 24 that will face the apartment house. All ships rise and fall with the same tide.

The concerns raised by owners include: A. The design and appearance of the apartments is not consistent with what is basically a Mediterranean theme of most of the buildings on the main Rollins campus; B. The construction of a wood-frame

building as opposed to concrete block is not consistent with the construction on the main campus and will lead to earlier deterioration of the structure; C. The lack of architectural detail on the building, such as trim design and window/shutter treatments, that would give it a more classic, imposing and pleasing look; and D. The design does not fit into either the City's concepts for building designs for either the Central Business District or the Hannibal Square District. The lot in question actually abuts both Districts, but the proposed apartment rendering does not resemble the buildings in either of these Districts.

This is not meant as any type of criticism against the architect or his architectural firm which were retained by Rollins. Both the architect and his firm are top-notch and carry good reputations. My supposition is that he was given a budget to work within. The design of this apartment would work well elsewhere, but just not in downtown Winter Park.

I would think that Rollins would not use this design if it were to construct a facility for its faculty on the main campus. It would just not fit in to the classic look of the campus. That being said, why should not Rollins be asked to build a classic building that would enhance downtown Winter Park? A lot of people travel on Welbourne, Virginia and New England Aves each day and especially so during major events. Will this proposed structure impress them or add to the "charm" of Winter Park? I suggest not.

There is a fairly simple fix to be had. Rollins should be required to have the architect re-work the concept of the building and increase his budget. I am sure he will do a good job. This would not be a significant financial burden on Rollins. A casual reading of the college's 2022 Financial Report, that is published on line, shows that the school is very much a profitable institution and is clearly in the black from its main purpose of educating students. As well, it appears the school generates close to \$2 million dollars a year in net income from the operation of the numerous commercial properties that it owns in Winter Park. And, the college touts that it had some \$438 million in its endowment accounts in 2022. So, it would not be a financial burden for the college to build a more appropriate building for the core of Winter Park. The city has been very accommodating for Rollins in the past, and the school should be willing to cooperate.

As I mentioned, there is concern among DG owners

that the apartment house will depress the values of the residential units in DG. There is apparently "word on the street" that this might happen based on the current design concept. Many DG residents are elderly, having worked long and hard to accumulate enough wealth to live comfortably in their later years and to be able to leave something for their heirs at the end of their days. For many this will be their last homes. So, you can understand that there is concern that something is coming into their neighborhood that will impact the value of their homes. We are talking about 24 homes that would be listed in the \$1.2 to \$1.5 million dollar range today, based upon the unit sizes. If my math is correct this represents total values in excess of \$30 million. Additionally, the units that face New York and Morse Avenues are larger and have higher values than those on Welbourne. Obviously, those owners are also concerned about the loss of value in their residences.

This is not a "not in my backyard argument". I would think that each of you would have the same concerns about potential impactful changes to your neighborhoods. Concerns about money may sound harsh, but these are real concerns in today's world. I believe most residents in DG can live with Rollins as a neighbor if these foregoing concerns and the following items can be satisfactorily addressed.

4. Initially there were concerns that this is a Trojan Horse exercise to build apartments that Rollins can later change into student dormitories, but the representatives of Rollins, who met with a large group of DG residents, pledged that this is not the school's intent and are willing to memorialize that understanding into some type of developer agreement and/or recorded deed restriction. (As an aside, the DG owners were pleased that the Rollins representatives were willing to listen to their concerns and take them under advisement).

5. Creation of a Developer Agreement/Deed Restrictions to include the following: A. The property will never be converted to student housing or to a condominium; B. The balconies will not be used for storage of any materials other than customary balcony furniture and plants; C. There will be no storage of bicycles, boxes unwanted furniture, etc. on the balconies; D. The balconies shall not be used to hang/dry laundry, towels, athletic equipment, etc; E. Window treatments visible from the exterior will be of a uniform and durable product; F. Nothing to be

displayed on the window panes that are visible from the exterior; G. A/C units, solar panels and other structures on the roof shall be covered and not visible from the street or from the upper floors of DG.

I appreciate your patience and consideration of my thoughts. I hope you will accept them as being constructive, as that is my intent. Thank you.

Robert Higgins

Jeffrey Briggs

From: Peter Weldon <peterjweldon@outlook.com>
Sent: Monday, January 8, 2024 3:49 PM
To: melissavickersthomas@gmail.com; alex@stringfellowplanning.com; michaelspencer.fpna@yahoo.com; vashonmariedesigns@gmail.com; warren@warrenlindseylaw.com; cajunjim11@gmail.com; dsb328@gmail.com
Cc: Jeffrey Briggs; Randy Knight; Mayor and Commissioners
Subject: [External] Rollins Request for Faculty Housing

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Planning and Zoning Board Members,

Rollins College has been the cultural backbone of Winter Park for over 135 years.

I supported all Rollins' expansion projects and developments during my years as a member of our Planning and Zoning Board and as your City Commissioner. In the past, all their requests added value for both the city and for the college.

However, the current request of Rollins to build a three story, 48 unit, faculty apartment facility on 1.8 acres fronting on W New England, W Welborne, and S Virginia Avenues does not meet any reasoned test of a balanced benefit for both Rollins and our city.

I strongly recommend a NO recommendation by the Planning and Zoning Board to the City Commission.

1. The requested zoning exceptions attempt to fit a square peg in a round hole. They want R4 density where it is not allowed.
2. We got rid of R4 zoning in search of less density and higher values. Putting R4 density, especially as small apartments, on this important piece of downtown property devalues the land and surrounding properties.
3. The building is likely to be left off the tax rolls.
4. The value to the city in future taxes is likely 30% or less of what could be achieved from the allowable 30 condominiums under existing R3 zoning without material zoning changes.

This proposed Rollins development DEVALUES our city to benefit the college.

Please vote NO on this project.

This proposed project shines a light on the shortcomings of our zoning code for the Central Business District. Please look closely at the current zoning on this entire block and understand the importance of permitting structured parking without penalizing Floor Area Ratio here. The potential to truly expand the Park Avenue experience west of New York Avenue depends on a more flexible approach. Please think about the potential to create value for the people of Winter Park on this block.

Regards, Pete Weldon

Jeffrey Briggs

From: Jan Munson <jantmunson@gmail.com>
Sent: Monday, January 8, 2024 12:43 PM
To: Jeffrey Briggs; Rene S Cranis; Mayor and Commissioners
Subject: [External] Proposed Rollins Staff & Faculty Housing

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear Planning & Zoning Board Members & City Commissioners:

Thank you for working towards the goal of attainable workforce housing. Douglas Grand Condominium owners also appreciate being able to meet with Rollins to express our concerns about their proposal. Unfortunately, after the meeting, several of our concerns remain.

As a property owner at Douglas Grand Condominiums, I believe that that goal of attainable workforce housing can be obtained without devaluation of Douglas Grand owner's property values if certain adjustments are met.

I would like to see Rollins proposed property be built with Rollins' traditional block construction and attractive Spanish design with tile roofs presently on Rollins campus and the beautiful Alford Hotel. This would certainly be more fitting next to Douglas Grand, the other adjacent block constructed condo building, and the historic character of Hannibal Square, and it's many attractive Spanish style block buildings.

The 5 foot wall on the roof would help with screening from ground level, but not the view for third and fourth floor Douglas Grand residential owners. Also requiring consistent window treatments, and nothing but attractive balcony furniture and plant material on balconies would be essential.

Making sure that there is a deed restriction, or other necessary measure, to prohibit students living, classes or meetings in this building into the future is vital.

Finally, parking and driving on streets adjacent to Douglas Grand and the proposed Rollins project is quite busy at many times of the day and week. Welbourne Avenue's entrance and exit from the parking garage is often quite congested, and is often only passable by waiting till one free lane opens up. A traffic study (if ordered) would show this fact. Indented/ recessed parking on this proposed property with treed bump outs along Welbourne Avenue similar to Orange Avenue would help mitigate this issue. Also, as Welbourne Avenue is already overcrowded, lowering the number of Rollins units to meet the already relaxed parking requirement of 2 spaces per unit would be very important. It is not realistic to assume only one car for each one bedroom unit. The additional cars would then be forced to look for already extremely scarce street parking.

I hope that these changes can be achieved for the good of the residents of Douglas Grand's property values, and the Rollins community.

Thank you for your consideration.

Jeffrey Briggs

From: kirk.nalley.personal@gmail.com
Sent: Monday, January 8, 2024 1:14 PM
To: Jeffrey Briggs; Allison McGillis; Mayor and Commissioners
Subject: [External] Rollins College deserves your support!

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear elected and appointed officials of Winter Park,

I am contacting you today to express my support of the Rollins College faculty/staff building permit and requesting that you do the same.

Winter Park and Rollins have been community partners since 1885 and now is a time for the city to support an important venture the college is trying to establish to benefit the community.

I view this new building project as a win-win for Winter Park and Rollins. In addition to bringing more residents in to the community to support local commerce and restaurants this initiative will be among the first of its kind in the area to establish employer backed housing. This initiative must align to sustainability goals and helps reduce traffic and parking concerns too. Please vote in favor of the Rollins initiative. Rollins needs and deserves your support today.

Sincerely,
Kirk Nalley
Winter Park resident & taxpayer
Rollins College - '93 & '01

Jeffrey Briggs

From: Robert Higgins <rfhadr@icloud.com>
Sent: Monday, January 8, 2024 12:23 PM
To: Jeffrey Briggs; Rene S Cranis
Subject: [External] Fwd: Second Memo Regarding the Rollins College Proposed Faculty and Staff Apartments

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Second Memorandum to the City of Winter Park Planning and Zoning Department, Planning and Zoning Commission and City Commission:

Ladies and Gentlemen, my name is Robert Higgins. I am an owner of a residential condominium in the Douglas Grand Condominium (DG) in downtown Winter Park. My street address is 100 S. Virginia Avenue, though my home faces Welbourne Avenue, directly across from the site on which the college wishes to build a residential apartment house. My phone number is 321-972-4804.

This is my second communication to you regarding the request by Rollins College for significant waivers of the terms of the existing Comp Plan requirements for development of properties on land with R-3 zoning, and especially for properties that abut the Central Business District and the Hannibal Square District. I will not reiterate the concerns raised by my first communication, most of which concerns are shared by many of my neighbors in DG. But, I would like to expand on a few of those concerns, if you will indulge me.

First, let me say that I do not, per se, object to Rollins constructing a residential property across from my home. The problem is the product the college proposes to build, its size and its impact on the neighborhood. I had hoped that after a positive meeting between representatives of the college and some 25, or so, DG residents where many concerns about the project were raised and discussed that Rollins would come back to us with modifications to the plans that would not by any means stop the project, but in fact might improve it, but unfortunately that has not happened.

I understand there has been some indication that the college might address the obvious lack of sufficient on-site parking by agreeing to limit one bedroom apartments to one parking spot on site. But, what if married tenants have two vehicles? All that proposed two-step shuffle is going to do is put more cars onto the neighborhood streets creating more parking issues for customers of the businesses on West New England and the visitors who park in the area to access Park Avenue. I doubt Rollins is going to employ "parking enforcement officers" to deter "illegal parking" by faculty and staff. There is a reason that R-3 zoning requires 2.5 parking spaces per residential unit. Rollins has not shown a good reason to vary this requirement. The argument that since the City might have granted a waiver for the mandatory 2.5 spaces in the past does not justify a waiver today. If so, why bother even having the Comp Plan? There is a simple fix. Reduce the number of residential units allowed on the site, such as only allowing a two story structure or reducing the size of the third floor of the structure.

Several DG residents have focused on the need to have a Developer Agreement, Deed Restrictions or some other recorded enforceable document that would address restrictions on how the balconies of the apartments might be used, window treatments that would be viewed from the street (the current

design shows that significant portions of the apartments will be windows) and how structures and devices situated on the roof of the building will be hidden from view from the street and from DG. Apparently, Rollins has not given these concerns much weight and suggested these issues can be raised in the leases they will have with the tenants, but that leaves no method of enforcement by DG residents if the apartment balconies and windows are not kept tidy and neat, the windows become distracting and the place starts to look like a college dorm, nor does it prevent future Rollins Administrations from changing these "assurances."

Perhaps the biggest concern of most DG owners, including the commercial condominium unit owners, is the appearance of the proposed structure as represented in the rendering supplied by Rollins. Most think it is just a generic box-style building with no appeal. It is not a structure that fits with the design of the buildings on the main Rollins campus and it certainly does not enhance the "quaintness" of Winter Park, which seems to be the goal of the City Commission, business leaders and residents of Winter Park. Not to sound snotty, but this is the type of apartment better suited for cities like Fern Park or Casselberry.

As I previously advised, there is great concern that this style of structure will decrease the value of the residential units, and potentially, the commercial units in DG. This concern was been voiced by the developer of high-end multi family residences throughout Florida. The fix is easy. Tell Rollins to go back to the architect and come up with a design that conveys the spirit of the college and the residents of Winter Park. This is an easy fix for the architectural firm. A review of the many quality high-end multi-family residences that Slocum-Platts has designed can be found on the firm's website. The architect could pull one of those designs off the shelf, do a little tweaking and present a more appropriate building for the residents of Winter Park.

A real problem is that once the structure is up, it will be too late to do anything. Rollins has to be willing to do more. Once built, the school's administration leaders are likely not to spend any substantial time on site, so the look of the place will not be a concern to them. But, if they want to do something "nice" for faculty and staff the school should give them a residence that will make them proud of their homes. Given that, the Rollins tenants are more likely to maintain the place in a proper way.

It is clear that the proposed structure is not in a style consistent with the Mediterranean motif of the vast majority of buildings on the main Rollins campus. It is a simple wood frame building with no concrete base. I hazard a guess that if Rollins were to build a residential building for faculty and staff on the main campus, it would not use this proposed design. Certainly, the new 300 room dormitory to be built by Rollins on campus will not use this design. Why is that? The answer should be obvious.

Bottom line, Rollins has made many "Asks" in all of the requested waivers of the Comp Plan requirements that apply to this property. It seems the P&Z staff has rolled over and acceded to most all of the school's requests. One has to wonder if any other builder would receive the same accommodations from the P&Z staff? Residents of DG have also made a few "Asks" of the P&Z Staff and Rollins, but to date, few have received any favorable consideration.

Rollins needs to do more to create a building that the people of Winter Park will find pleasing and in "Conformity" with the style of the City. "Conformity" not only in the sense of the purpose of the building, but in "Conformity" with the look and style of the City. I suggest the proposed style of the building does not conform to the "look" of Winter Park and will do nothing to enhance either the Central Business District or the Hannibal Square District.

Rollins can afford to commission a more suitable structure that will have a "better look," and be more aesthetically pleasing and include concrete construction. A lot of people travel over Welbourne

Avenue every day and will see the structure. Will they be impressed? Will visitors to the City be impressed? The owners of the 45 DG residential units, most of whom are long time Winter Park residents who pay substantial real estate taxes and vote will see the structure every day. As it stands now, I believe that few will be impressed.

Rollins has pretty much gotten everything it has ask of the City over the years. Rollins should be willing to give back to the City and its residents by constructing a more appropriate structure. It is not a big "Ask" for the college.

I appreciate your consideration of these thoughts and your service to the citizens of Winter Park.

Robert Higgins

Jeffrey Briggs

From: Betsy Gardner <bgardner@winterpark.org>
Sent: Tuesday, January 9, 2024 2:19 PM
To: Mayor and Commissioners; Allison McGillis; Jeffrey Briggs
Subject: [External] Rollins Workforce Housing

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear Mayor and Commissioners and City Staff:

I write to encourage your support for the workforce housing project being submitted this week by Rollins College.

The shortage of affordable housing units is a topic that the Chamber has brought into focus since the inception of the Winter Park Prosperity Scorecard, which has quantified in detail the urgency of our housing crisis. With single family homes now averaging over \$1MM, we are seeing downstream consequences of this lack of affordability, including and especially the potential erosion of the value proposition of Rollins' place-based learning environment. What a shame to hear increasingly more about professors who live in Oviedo because they simply cannot afford to climb onto our property ladder here. Invariably, students will lose out on the benefits of dinners at home and the sense of community that has historically emerged from faculty residing in walkable proximity to the campus.

Rollins is a crown jewel of Winter Park that not only contributes richly to our quality of life, but also is a significant economic development engine for Winter Park. We must do all that we can to protect the unique experience of the Rollins learning environment while taking steps to address the crisis of housing affordability in our community, which should, if nothing else, strain the collective conscience of its leaders.

Rollins has put forth a simple and elegant solution to take the first steps to address this crisis in a way that respects the character and integrity of our land use while ensuring a diverse base of residents and a robust learning environment for its students.

I urge you to heartily endorse this thoughtful plan and move with all due haste to approve it.

Yours truly,

Betsy

Betsy Gardner, IOM
President/CEO
Winter Park Chamber of Commerce
151 West Lyman Avenue
Winter Park, FL 32789
O: (407) 643-1699
www.winterpark.org
Winter Park Chamber of Commerce
A Top 3 National Chamber of the Year

Jeffrey Briggs

From: Kathryn Sutton <kheprigolden@gmail.com>
Sent: Tuesday, January 9, 2024 2:20 PM
To: Mayor and Commissioners; Jeffrey Briggs; Rene S Cranis
Cc: Kathryn M. Sutton; Jan Munson; Michael Dick
Subject: [External] Proposed Rollins Staff and Faculty Housing Project

[This email originated outside the City of Winter Park email system. Before clicking on hyperlinks, verify the actual address by hovering over the link. Do not open attachments from unknown or unverified sources.]

Dear Planning & Zoning Board Members, and City Commissioners:

As a Douglas Grand condominium owner, I appreciate the opportunity to file these comments on the application filed by Rollins College to construct a housing project for its staff and faculty, as well as certain commercial units on the project site. Rather than repeat comments filed by my fellow homeowners, I adopt and incorporate by specific reference the comments of Michael Dick and Jan Munson.

Further to the comments requesting that the project be designed and built with Rollins' traditional block construction and historic Spanish design, I ask that the Planning & Zoning Board members—as well as our City Commissioners—take note of the project's location. Namely, in Hannibal Square, and two blocks from the Downtown Historic District, as registered in the National Register of Historic Places.

The City of Winter Park's website addresses Historic Preservation. It reads, in pertinent part, as follows:

"Winter Park is a city recognized for its old Florida sense of place. The unique character of Winter Park is due in part to it[s] historic architecture as reflected in its vibrant downtown, gracious neighborhoods and landmark buildings."

The proposed project is located directly between the Downtown Historic District and the beautiful, culturally rich community of Hannibal Square. The Hannibal Square Heritage Center whose operations are funded, in part, through the Community Redevelopment Agency of the City of Winter Park and the Division of Cultural Affairs of the State of Florida, is an easy two block walk from the project site.

The Hannibal Square Heritage Center website reads, in pertinent part, as follows:

"Today, the City of Winter Park, known worldwide for its wealth and quality of life, is one of the most desirable addresses in Florida. *This prime location has fueled development and gentrification of Hannibal Square, with significant loss of cultural landmarks and native residents. Members of the community have rallied to preserve what is left of its heritage,* and that is where the Hannibal Square Heritage Center story begins." (emphasis added)

The modern design and non-block construction of the proposed project, combined with the added street traffic and parking it will bring to the neighborhood, are further steps along the now-lengthy paths of development and gentrification in Winter Park leading to the continued erasure of Hannibal Square's heritage and culture. The proposed design is not commensurate with the City of Winter Park's above-described "old Florida sense of place" or "unique character." Nor is it or will it ever be one of the City's or even Rollins

College's "landmark buildings." For these reasons, I ask that you please consider the adverse aesthetic, environmental, and cultural impacts of the project on the historic community in which it seeks to reside. Please strongly consider the need for mitigative design, construction, and transportation/parking improvements.

To better understand the nature of the review and consideration of the project's impact on the residents and aesthetics of the surrounding neighborhoods, historic and otherwise—I also request that you make publicly available any filings, or notes of consultations, made with the community Redevelopment Agency of the City of Winter Park, the City of Winter Park Historic Preservation Division, the Compliance and Review Section of the Florida Bureau of Historic Preservation, as well as the Florida Division of Historical Resources. Further to this request, please provide any filings and/or consultations made with the National Park Service or other Federal departments or agencies related to or otherwise referencing the Winter Park Florida Downtown Historic District, as listed in the National Register of Historic Places, and/or the Hannibal Square Heritage Center or Hannibal Square community at large.

Thank you for your time and consideration of these comments.

Sincerely,

Kathryn M. Sutton

101 S New York Ave., Unit 312
Winter Park, FL. 32789

**item type**

Public Hearings: Non Quasi-Judicial Matters

meeting date

January 24, 2024

prepared by

Victoria Tabor, Administrative Coordinator II

approved by

Randy Knight, City Manager

subject

Resolution 2281-24 - Amending the Sustainability Action Plan (SAP) adopting Renewable Energy Targets

motion | recommendation

After revision to the Initial Integrated Resource Plan (IRP) Feasibility Study and conducting a proforma rate analysis, staff recommends for City of Winter Park to adopt Target #3 and Scenario 3D which is 80% renewable energy supply by 2035, 89% renewable energy supply by 2042, and 100% renewable energy supply by 2050. Whereby the Resolution firms up the targets and goals, removes context of aspirational, and follows safeguards below:

- CWP should regularly reevaluate its targets and plans for its electric energy supply. Should continuing on a path to reach a 100% renewable supply prove too costly in future years, such that the associated retail electric rates would exceed 105% of local and/or state averages, the city would adjust its energy supply renewable targets accordingly.
- The new IRP Program Manager will aid in achieving target goals.
- CWP should have Quanta Technologies available as consultant to new IRP Program Manager position to align with the study results and CWP's mission.
- CWP should implement educational outreach efforts including community meetings and educational material that fosters support in meeting targets and goals.

background

City of Winter Park is committed to a sustainable future whereby the City Commission adopted a Sustainability Action Plan (SAP) in January 2023 that calls for reducing greenhouse gas emissions (GHG) and targets all electricity consumption from renewable-fueled resources. Several primary targets and scenarios were defined for evaluation as possible SAP goals for evolving toward a sustainable electric energy supply via an Integrated Resource Plan (IRP) Feasibility Study that was performed by Quanta Technologies. The IRP includes a multi-year forecast of key assumptions important to the analysis, including load forecasts, EV growth, costs for renewables and battery storage, distributed solar and storage, the cost for natural gas fuel, energy efficiency and demand response forecasts, and financial assumptions.

strategic objectives

alternatives | other considerations

fiscal impact

attachments

1. Renewable Energy Presentation
2. Feasibility Study Recommendation v2
3. Motion for Discussion- Renewable Plan 12-11-23
4. Resolution amending SAP- Renewable goals v1
5. 23.11.05 Quanta Technology CWP IRP Report V6.0-Final
6. 23.12.18 CWP Financial Proform Projections V4.0
7. SAP REVISION Jan 2024



Renewable Energy

Adoption of Carbon-free plan by 2025

Development Background



- Integrated Resource Plan (IRP)- a feasibility analysis of the cost and options to transition the power supply to 100% renewable sources
- Target 1: 100% Renewable Energy Supply by 2050
- Target 2: 100% Net-Zero Carbon by 2050 Target
- Target 3: 80% Renewable by 2035 and 100% by 2050

Development Background



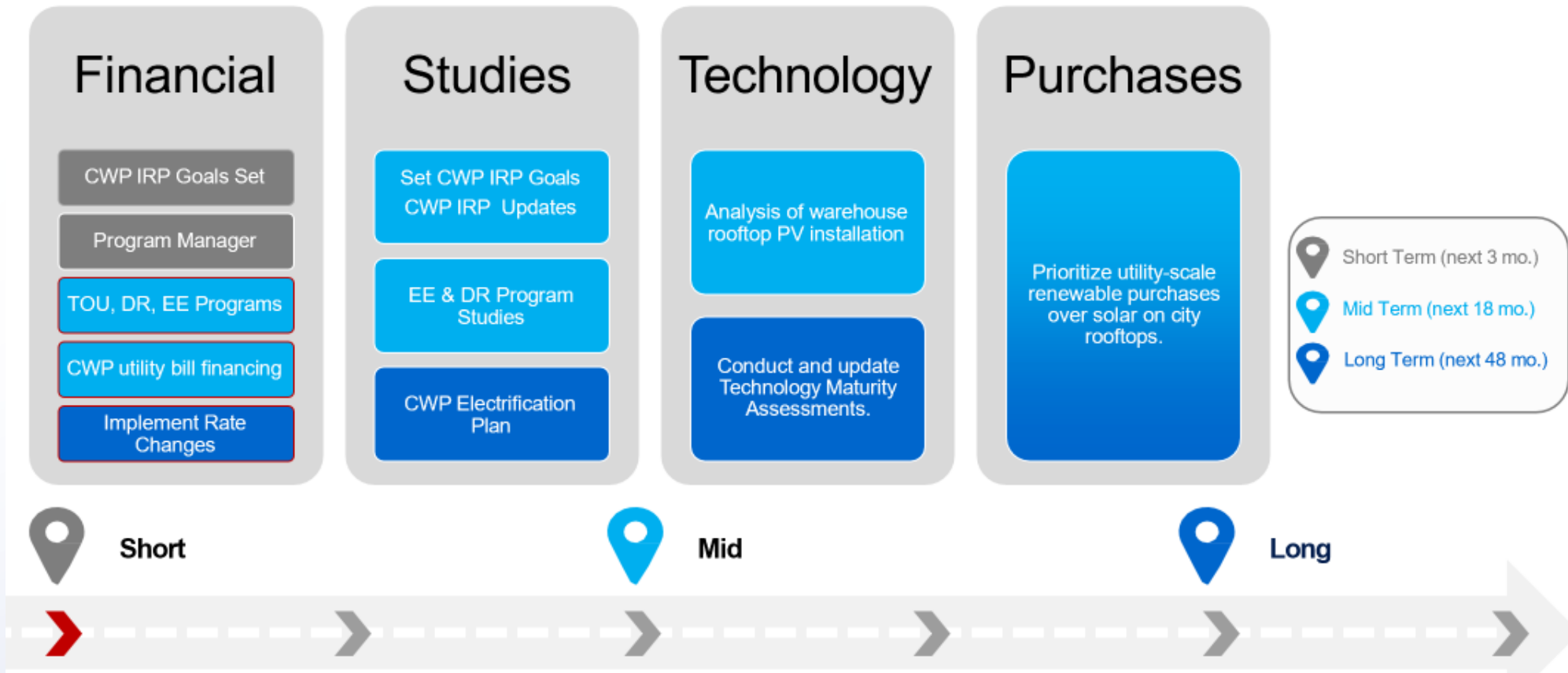
- January 2023 City Commission
 - Sustainability Action Plan (SAP) Adopted with carbon emission targets at TBD
- March 2023 City Commission Work Session
 - Target 3 was preferred with Carbon Free goals
 - Deliverables Requested: 30 yr Cost Proforma, Key Assumptions Documentation, Storm Risk, IRP Manager Position
- October 2023 IRP Manager Position Filled- Lisa Vedder
- December 2023 City Commission Work Session
 - Deliverables Provided: Cost Proforma, Key Assumptions Documentation, and Storm Risk
- Utility Advisory Board Approved
- Keep Winter Park Beautiful & Sustainable Board Approved

Development Background



- IRP that includes key assumptions of which are referenced in Appendix A. The IRP developed conservative assumptions and forecasts to assess costs and electric supply technology options from 2024 to 2050 across 18 different future scenarios.
- IRP analysis indicates, under scenario 3D, that city can feasibly transition to 80% renewable supply by 2035 for a cost of power comparable to the cost of continuing with the current fossil-fueled.

Roadmap Next Steps:



SAP New Renewable Targets



INDICATORS

	Indicator Description	2012 Baseline	2021 Status	2022 Status	2025 Target	2035 Target	2042 Target	2050 Target
CR-1	Proportion of renewable energy in Winter Park Electric Utility's Energy portfolio ¹ – Baseline Year: 2021 includes Covanta	4%	13%	21.72	23%	80%	89%	100%
CR-2	Community wide greenhouse gas emissions [Tons of carbon dioxide equivalent] – Baseline Year: 2018	398,919	405,394	406,999	355,000	235,000	151,000	58,000
CR-3	WP Electric Utility customers with Solar – Baseline Year: 2012	7	139	154	300	700	950	1300
CR-4	Proportion of Residents within 1/2 mile of affordable, healthy food options – Baseline Year: 2012	-	46%	40%	50%	75%	80%	TBD
CR-5	Undergrounding of Winter Park's electrical Utility ²	-	-	73.1%	85%	100%		

¹Approximations with plans for refinement as reaching 100% target in 2050 is contingent on cost reduction in dispatchable energy from renewable sources as noted in the Key Assumptions Appendix A of the 100% Renewable Initiative Final Report 6.0, 2023.

²Target completion date is no later than 2030.

- 80% renewable energy by 2035
- 89% renewable energy by 2042 (technology review)
- 100% renewable energy by 2050
- Key Assumptions Referenced
- Rate collar of 105% local/state avgs

Renewable Energy Feasibility Study: Recommendations:

City of Winter Park (CWP) is committed to a sustainable future whereby the City Commission has adopted a sustainability action plan (SAP) in January 2023 that calls for reducing greenhouse gas emissions (GHG) and targets all electricity consumption from renewable-fueled resources. Three primary targets were defined for evaluation as possible SAP goals for evolving toward a sustainable electric energy supply. The three potential targets evaluated by Quanta Technology's feasibility study for future energy supply included:

- Target 1: 100% renewable energy supply by 2050
- Target 2: 100% net-zero carbon energy supply by 2050
- Target 3: 80% renewable energy supply by 2035 and then 100% by 2050

Each target was analyzed by way of scenario considerations. A scenario in this context is a set of future conditions that collectively describe the external environment/conditions under which supply options are to be assessed. In the case of a resource plan, a scenario description includes a multi-year forecast of external drivers or assumptions important to the analysis, including load forecasts, EV growth, costs for renewables and battery storage, distributed solar and storage, the cost for natural gas fuel, energy efficiency and demand response forecasts, and financial assumptions.

The analysis indicates that the CWP's adoption of a path toward 100% renewables can be accomplished for a reasonable cost of power for the next 20 years. However, beyond the next 20 years (during the last 6 years analyzed in the report from 2043–2050), the technology selection and the costs remain uncertain and, based on the technology options, and costs assumed in this study, could bring a substantial increase in power costs. This rapid rise in costs near the end of the study period was driven by assumptions on technology costs which resulted in a sharp increase in cost during the final years of the study.

The Quanta Technology study supports-states that additional cost-effective technologies will-beare forecasted to be available before 2043. The power industry and DOE is expending considerable time and money on identifying options that could deliver lower-priced energy sources, including offshore wind, long-term energy storage technologies, and new technologies for geothermal energy, among others. While the costs projected in the last 6-2 yearyears of the study are very high, based on the current assumptions, the costs before 2043 are comparable to projected CWP's utility costs and could be lower.

As continuing on a path to 100% renewable energy supply, and in the best interest of the CWP, a recommended roadmap for consideration is provided.

Recommendations:

After revision to the initial study and conducting a proforma rate analysis, the scenriescenario best fit for City of Winter Park is Targer #3Scenario 3D that includes the following:

- CWP should adopt Target #3A3 and Scenario 3D: 80% renewable energy supply by 2035, 89% renewable energy supply by 2042 with updating on new technology available, and 100% renewable energy supply by 2050.
 - Adoption should be within the SAP whereby targets are updated as shown in table below.

- Resolution should firm up the targets and goals removing context of aspirational.

INDICATORS

	Indicator Description	2012 Baseline	2021 Status	2025 Target	2035 Target	2042 Target	2050 Target
CR-1	Proportion of renewable energy in Winter Park Electric Utility's Energy portfolio ¹ – Baseline Year: 2021 includes Covanta	4%	13%	23%	80%	89%	100%
CR-2	Community wide greenhouse gas emissions [Tons of carbon dioxide equivalent] ² – Baseline Year: 2018	398,919	405,394	355,000	235,000	151,000	58,000
CR-3	WPE Electric Utility customers with Solar – Baseline Year: 2012	7	139	300	700	950	1300
CR-4	Proportion of Residents within 1/2 mile of affordable, healthy food options – Baseline Year ³ : 2012	-	46%	50%	75%	80%	TBD
CR-5	Undergrounding of Winter Park's electrical utility ³	-	74%	85%	100%		

¹Approximations with plans for refinement as reaching 100% target in 2050 is contingent on a dramatic cost reduction in dispatchable energy from renewable sources.

²The baseline for this updated indicator will be calculated in 2023, previous indicator did not include "affordable" identifier.

³Target completion date is no later than 2030.

- CWP should not avoid adopting its renewable targets because of costs that are not expected to occur for over 20 years.
- CWP should regularly reevaluate its targets and plans for its electric energy supply. **Should continuing on a path to reach a 100% renewable supply prove too costly in future years, such that the associated retail electric rates would exceed 105% of local and/or state averages, the city would adjust its energy supply renewable targets accordingly.**
- ~~Should continuing on a path to 100% renewable prove too costly in future years, CWP can adjust accordingly.~~
- ~~CWP investment in the~~ The new Integrated Resource Plan (IRP) Program Manager will aid in achieving target goals.
- CWP should have Quanta Technologies available as consultant to new Integrated Resource Plan (IRP) Program Manager position to align with the study results and CWP's mission.
- CWP should implement educational outreach efforts including community meetings and educational material that fosters support in meeting targets and goals.

Roadmap Goals:

- ~~Short-term – First 6 Months – (May/July 2023 to December/July 2 2023): Focusing on alignment, definition, and goal setting/validation, which includes defining and committing to a clean energy supply target and establishing multiple interim targets for renewable contributions along the path to 2050.~~

- Short-term- First 6 Months - (July 2023 to December 2023): Focusing on alignment, definition, and goal setting/validation, which includes defining and committing to a clean energy supply target and establishing multiple interim targets for renewable contributions along the path to 2050.
- Mid-term- First 18 Months - (August 2023–February 2025): Focusing on designing customer demand response (DR) programs, energy efficiency (EE) programs and time of use (TOU) rates, prioritizing utility-scale renewable purchases over solar for city assets.
- Long-term -First 48 months (March 2025–April 2027by June 2027): Focusing on implementing EE, DR programs and TOU rates, and changing the net energy metering (NEM) rate credited to the customer to a cost-based TOU rate.

DRAFT Motion for Discussion- Renewable Plan 12-10-23

Move to Approve the Renewable Energy Plan (the “Plan”) to Achieve 80% Renewable Energy by 2035 and 100% by 2050 (aka Scenario 3A), as shown in the Quanta Study dated 11-11-2023 (the “Study”) with the following Notations and Conditions:

1. The approval is based on “Revised Case 4” of the financial projections and the Key Assumptions. Importantly, Case 2 shows that the “As-Is, Fossil Fuel Plan” from 2024-2030 may require rate increases of around 2.67% per year. On the other hand, the Renewable Energy Plan may require only 0.18% more of a rate increase to secure more significant solar power thru 2030.
2. The intent of the Renewable Energy Plan is:
 - a. to cause the creation/expansion of additional renewable energy generation and;
 - b. to lower the carbon emissions in the immediate area.

The intention is to commit to or invest in identifiable renewable energy sources (“Spot or single source”) that are distinct and offer wholesale forward long-term purchase contracts from and/or direct investment and ownership in the plant itself. The intention is NOT merely to pay more to a bulk provider when the renewable power is not from a specified plant. For example, buying “Solar” energy from Florida Power or OUC based merely on a “representation” by Florida Power or OUC that the energy will be derived from a variety of renewable sources is not sufficient to meet the intent of the Renewable Plan.

Sections 4.5 “Generation Technologies and Battery Storage” and Section 4.9 “Financial Assumptions” work together to: i. Imply that there will be significant development of renewable energy capacity; and ii. Imply that the additional renewable energy capacity can be purchased.

RESOLUTION 2281-24

A RESOLUTION OF THE CITY COMMISSION OF THE CITY OF WINTER PARK, FLORIDA, AMENDING THE SUSTAINABILITY ACTION PLAN ADOPTED BY RESOLUTION 2267-23; PROVIDING FOR SEVERABILITY, NON-LIMITATION OF AUTHORITY, AND AN EFFECTIVE DATE.

WHEREAS, in January 25, 2023, the City adopted the Sustainability Action Plan that promotes, “responsible and proactive decision-making that minimizes negative impacts and maintains balance between social, environmental, and economic growth to ensure a desirable planet for all species now and in the future”; and

WHEREAS, the purpose of the Sustainability Action Plan is to create a roadmap depicting where the City is today and where it would like to be in the future, in regards to achieving sustainability goals and targets by a specific time frame; and

WHEREAS, based upon the results from the feasibility study, the target dates in the Climate Resiliency section of the Sustainability Action Plan has been revised to replace ‘TBD’ with specific target goals of 80% renewable energy supply by 2035, 89% renewable energy supply by 2042 to include an update on technologies available, and 100% renewable energy supply by 2050; and

WHEREAS, it is the intention that the City will conduct the following safeguard measures to ensure meaningful emission reduction goals:

- regularly re-evaluate renewable targets and integrated resource plans for its electric energy supply at 3-year maximum intervals, and adjust such targets and plans accordingly should continuing on a path to 100% renewable energy prove too costly in future years such that the associated retail electric rates would exceed 105% of local and/or state averages; and,
- establish short-term, mid-term, and long-term goals in its roadmap to 100% renewable energy; and,
- pursue a carbon emission goal of **zero carbon**; and

WHEREAS, the Sustainability Action Plan and revision is supported by the Keep Winter Park Beautiful and Sustainable Advisory Board and the Utility Advisory Board; and

WHEREAS, the Sustainability Action Plan is a living document intended to evolve over time and contains long-term objectives and short-term actions for helping the City achieve targets related to sustainability; and

WHEREAS, the objectives are intended to be quantifiable so that progress can be measured on an annual basis.

NOW, THEREFORE, be it resolved by the City Commission of the City of Winter Park, Florida that:

SECTION 1. Recitals. The foregoing recitals are hereby ratified and confirmed as being true and correct and are hereby made a part of this Resolution.

SECTION 2. Sustainability Action Plan. The City Commission hereby adopts the amendment to the Sustainability Action Plan attached to this Resolution in order to achieve sustainability goals.

SECTION 3. Severability. If any section, subsection, sentence, clause, phrase, word or provision of this Resolution is for any reason held invalid or unconstitutional by any court of competent jurisdiction, whether for substantive, procedural, or any other reason, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions of this Resolution.

SECTION 4. Non-limitation of Authority. This Resolution shall not be construed to limit City Commission authority or discretion over whether or how to budget, allocate, or spend moneys for any purpose. The Sustainability Action Plan is a target-based plan and is subordinate to the City's Comprehensive Plan, the City's land development regulations, and other legally binding requirements of the City's Code.

SECTION 5. Effective date. This Resolution and the Sustainability Action Plan shall become effective immediately upon adoption of this Resolution by the City Commission of the City of Winter Park, Florida.

ADOPTED at a regular meeting of the City Commission of the City of Winter Park held in City Hall, Winter Park on this 24th day of January, 2024.

Mayor Phillip M. Anderson

ATTEST:

City Clerk Rene Cranis



QUANTA
TECHNOLOGY

REPORT

City of Winter Park 100% Renewable Initiative Final Report



PREPARED FOR

City of Winter Park

DATE

November 5, 2023
(Version 6.0)

PREPARED BY

Michael Mount
MMount@quanta-technology.com

Hisham Othman
Hothman@quanta-technonology.com

Diana Prkacin
DPrkacin@quanta-technology.com

Jesus Gonzalez
JGonzalez@quanta-Technology.com

QUANTA TECHNOLOGY, LLC

4020 Westchase Boulevard, Suite 300, Raleigh, NC 27607 USA

RALEIGH (HQ) | TORONTO | SAN FRANCISCO BAY AREA | SOUTHERN CALIFORNIA | CHICAGO

www.Quanta-Technology.com

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Report Contributors:

- Michael Mount
- Hisham Othman
- Diana Prkacin
- Khoi Vu
- Jesus Gonzalez

VERSION HISTORY:

Version	Date	Description
1.0	03/06/2023	Draft submission for CWP review
2.0	03/10/2023	Draft final submission for CWP Review
3.0	05/04/2023	Final submission
4.0	9/13/2023	Draft for review of revised and added analysis
5.0	10/14/2023	Corrected upper and lower fuel scenario results and added text
6.0	11/05/2023	Final Submission of Revised Report





TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	7
2	PROJECT SCOPE	9
2.1	Overview	9
2.2	Scope of Work	10
3	PROBABILISTIC IRP MODELING OVERVIEW	12
3.1	Philosophy and Approach	12
3.2	pIRP Model Overview	13
4	FORECASTS AND OTHER DATA INPUTS	18
4.1	Overview	18
4.2	Gross Customer Usage	18
4.3	Distributed Solar and Storage	23
4.4	Electric Vehicles	24
4.5	Generation Technologies and Battery Storage	27
4.6	Energy Efficiency and Demand Response	30
4.7	Fuel Price	32
4.8	Renewable Energy Credits	34
4.9	Financial Assumptions	35
5	SCENARIO DESCRIPTIONS	37
5.1	Targets and Scenarios	37
6	COST AND FEASIBILITY COMPARISONS	42
6.1	Target 1: 100% Renewable Energy Supply by 2050	42
6.2	Target 2: 100% Net-Zero Carbon by 2050 Target	46
6.3	Target 3: 80% Renewable by 2035 Target	49
6.4	Target 4: 80% Renewable by 2035, 200% by 2050, and Storm Resiliency	52
6.5	Summary of All Scenarios	54
7	CONCLUSIONS AND RECOMMENDED ROADMAP	57
7.1	Conclusions	57
7.2	Recommended Roadmap	57
7.2.1	Next Three Months (May 2023–July 2023)	58
7.2.2	Next 18 Months (August 2023–February 2025)	59
7.2.3	Next 48 Months (March 2025–April 2027)	60
7.2.4	Beyond 48 Months (Beyond April 2027)	61



APPENDIX A: TERMS AND DEFINITIONS	62
APPENDIX B: LIST OF ABBREVIATIONS AND ACRONYMS	64
APPENDIX C: BATTERY LIFECYCLE CONSIDERATIONS	66
APPENDIX D: NREL PVWATTS SOLAR PRODUCTION ESTIMATE	67
APPENDIX E: RESIDENTIAL ROOFTOP SOLAR AND BATTERY FORECASTS	69
APPENDIX F: FORECAST OF ROOFTOP AND GROUND MOUNT SOLAR PV ON CWP-OWNED PROPERTY.....	70
APPENDIX G: RESIDENTIAL LDV EV FORECASTS.....	71
APPENDIX H: ANNUAL SCHEDULE OF CAPACITY PURCHASES	72

List of Figures

Figure 1. pIRP Process Overview	13
Figure 2. Zonal Representation of the Power System	14
Figure 3. Time Buckets Representation of Time	14
Figure 4. pIRP Modeling Capability.....	15
Figure 5. pIRP Sample Output 1.....	16
Figure 6. pIRP Sample Output 2.....	16
Figure 7. pIRP Sample Output 3.....	17
Figure 8. Historical Annual CWP Energy Consumption and System Peak Demand	19
Figure 9. CWP Annual System Load Factor.....	20
Figure 10. Forecast of Florida Utility Growth Rates.....	21
Figure 11. CWP Forecasted Annual Energy Consumption	22
Figure 12. CWP Forecasted System Peak Demand	22
Figure 13. Resident and Commuter Annual EV-LDV Charging Energy: Expected Scenario.....	26
Figure 14. Annual Resident and Commuter EV-LDV Charging Energy	26
Figure 15. Projections of Generation and Storage Technologies Installed Costs.....	29
Figure 16. TYSP Utilities: Average Fuel Price of Reporting Electric Utilities	32
Figure 17. Ten Year History of Natural Gas Henry Hub Spot Price	33
Figure 18. Natural Gas Price Forecast at Henry Hub	33
Figure 19. REC Price Forecast	35
Figure 20. Comparison of Renewable Energy Results for the Two Renewable-Based Targets.....	42
Figure 21. Capacity Additions for Scenario 1A.....	43
Figure 22. Annualized Cost of Energy and LCOE: Scenario 1A Based on 2023–2050	45
Figure 23. Annualized Cost of Energy and LCOE: Scenario 1A Based on 2023–2042	46
Figure 24. Capacity Additions for Scenario 2A.....	47
Figure 25. Annualized Cost of Energy and LCOE: Scenario 2A Based on 2023–2050	48
Figure 26. Annualized Cost of Energy and LCOE: Scenario 2A Based on 2023–2042	48
Figure 27. Capacity Additions for Scenario 3A.....	49
Figure 28. Annualized Cost of Energy and LCOE: Scenario 3A Based on 2023–2050	50



Figure 29. Annualized Cost of Energy and LCOE: Scenario 3A Based on 2023–2042	50
Figure 30. Annualized Cost of Energy and LCOE: Scenario 3D Based on 2023–2042	51
Figure 31. Annualized Cost of Energy and LCOE: Scenario 3D Based on 2023–2042	51
Figure 32. Annualized Cost of Energy and LCOE: Scenario 4A (Battery Capacity) Based on 2023–2050.....	52
Figure 33. Annualized Cost of Energy and LCOE: Scenario 4A (Battery Capacity) Based on 2023–2042.....	53
Figure 34. Annualized Cost of Energy and LCOE: Scenario 4B (Old Fossil Capacity) Based on 2023–2050 .	53
Figure 35. Annualized Cost of Energy and LCOE: Scenario 4B (Old Fossil Capacity) Based on 2023–2042 .	54
Figure 36. Summary of 28-Year and 20-Year PVRR Results for All Scenarios	55
Figure 37. Comparison of Annual Power Costs for Scenario 3D and CWP Escalated	56
Figure 38. Illustrative Annual Renewable Targets	59
Figure 39. PVWatts Calculator	67
Figure 40. PVWatts Information and Metrics	68

List of Tables

Table 1. 2022 TYSP: Estimated Number of EVs	24
Table 2. 2022 TYSP: Estimates EV Annual Charging Consumption (GWh)	25
Table 3. Annual Energy Consumption Per EV (kWh)	25
Table 4. Generation and Storage Technologies Costs	28
Table 5. Solar PV Costs for Key Milestone Years (Installed Cost–\$/kW)	30
Table 6. Battery Storage Costs for Key Milestone Years (Installed Cost–\$/kWh)	30
Table 7. Primary Financial Assumptions	36
Table 8. Details for Scenarios Focused on Targets 1 and 2.....	39
Table 9. Details for Scenarios focused on Targets 3 and 4	40
Table 10. Developer Weighted Average Cost of Capital	41
Table 11. Capacity and Costs of Solar PV on CWP Owned Buildings and Vacant Land	41
Table 12. Three-Month Recommendations.....	58
Table 13. 18-Month Recommendations.....	59
Table 14. 48-Month Recommendations.....	61
Table 15. Report Terms	62
Table 16. Report Abbreviations and Acronyms	64
Table 17. Residential Rooftop Solar PV And Battery Forecasts	69
Table 18. Forecast Of Rooftop And Ground Mount Solar PV On CWP-Owned Property.....	70
Table 19. Residential LDV EV Forecasts.....	71
Table 20. Scenario 1A: Annual Capacity Purchases (MW)	72
Table 21. Scenario 2A: Annual Capacity Purchases (MW)	73
Table 22. Scenario 3A: Annual Capacity Purchases (MW)	74



1 EXECUTIVE SUMMARY

The City of Winter Park (CWP) is located in Central Florida adjacent to Orlando in Orange County. Winter Park's vision is a city of arts and culture, cherishing its traditional scale and charm while building a healthy and sustainable future for all generations. CWP owns its electric distribution assets, and its utility supplies electricity to approximately 14,276 customers. CWP does not generate power but has contracts with the Florida Municipal Power Association (FMPA) and Orlando Utilities Commission (OUC) to purchase approximately 100 MW of power yearly and approximately 10 MW from Covanta, which derives power from burning waste.

CWP is committed to a sustainable future and has created a sustainability action plan (SAP) that calls for reducing greenhouse gas emissions (GHG) and targets all electricity consumption from renewable-fueled resources. Specifically, three primary targets were defined for evaluation as possible CWP goals for evolving toward a sustainable electric energy supply. The three potential targets under consideration for the future CWP energy supply include:

- **Target 1:** 100% renewable energy supply by 2050
- **Target 2:** 100% net-zero carbon energy supply by 2050
- **Target 3:** 80% renewable energy supply by 2035 and then 100% by 2050

Target 4 was also defined to assess the impacts of adding additional capacity to the portfolios identified by Target 3 to replace solar generation assumed to be lost during severe multiday storm events.

It is important to note that while a net-zero carbon scenario was analyzed as Target 2, CWP is primarily focused on roadmaps based upon true 100% renewable or carbon-free targets. Therefore, primary conclusions and roadmap considerations are centered around 100% renewable paths (Targets 1 and 3).

Each target was further analyzed by way of scenario considerations. A scenario in this context is a set of future conditions that collectively describe the external environment/conditions under which supply options are to be assessed. In the case of a resource plan, a scenario description includes a multi-year forecast of external drivers or assumptions important to the analysis, including load forecasts, EV growth, costs for renewables and battery storage, distributed solar and storage, the cost for natural gas fuel, energy efficiency (EE) and demand response (DR) forecasts, and financial assumptions.

To better account for future conditions, Quanta Technology used a planning methodology that considers ranges of plausible future conditions founded on variations of multiple scenarios rather than analysis on a single scenario associated with a target. Therefore, the three base targets were expanded into a total of 18 different scenarios:

- Six focused on achieving Target 1 (100% renewable by 2050)
- Five focused on achieving Target 2 (100% net-zero carbon by 2050)
- Five focused on achieving Target 3 (80% renewable supply by 2035 and then 100% by 2050)
- Two focused on Target 4 (80% renewable energy supply by 2035, 100% by 2050, with added capacity for storm resiliency)



This analysis indicates that CWP's adoption of a path toward 100% renewables can be accomplished for a reasonable cost of power for the next 20 years. However, beyond the next 20 years (i.e., during the last 6 years analyzed in this report from 2043–2050), the technology selection and the costs remain understandably more uncertain and, based on the technology options and costs assumed in this study, could bring a substantial increase in CWP's power costs. This rapid rise in costs near the end of the study period was driven by assumptions on technology costs, which resulted in a sharp increase in cost during the final years of the study.

Quanta Technology believes that additional cost-effective technologies will be available well before 2043. The power industry is expending considerable time and money on identifying options that could deliver lower-priced energy sources, including offshore wind, long-term energy storage technologies, and new technologies for geothermal energy, among others. While the costs projected in the last 6 years of the study are high, based on the current assumptions, the costs before 2043 are comparable to projected CWP costs and could be lower. CWP should not avoid adopting its renewable targets because of costs that are not expected to occur for over 20 years. CWP should regularly reevaluate its targets and plans for its electric energy supply. Should continuing on a path to 100% renewable prove too costly in future years, CWP can adjust accordingly.

A recommended roadmap was developed and principally centered around the following:

- **Short-term (May–July 2023):** Focusing on alignment, definition, and goal setting/validation, which includes defining and committing to a clean energy supply target and establishing multiple interim targets for renewable contributions along the path to 2050.
- **Mid-term (August 2023–February 2025):** Focusing on designing customer EE and DR programs, time of use (TOU) rates, and prioritizing utility-scale renewable purchases over solar for city assets.
- **Long-term (March 2025–April 2027):** Focusing on implementing EE and DR programs, TOU rates, and changing the net energy metering (NEM) rate credited to the customer to a cost-based TOU rate.

A complete list of the recommended activities and projects in the roadmap is included in Section 7.2. Appendix A provides definitions of terms used in this report, and Appendix B provides a list of acronyms used in this report.



2 PROJECT SCOPE

2.1 Overview

The City of Winter Park (CWP) is 10 square miles with over 30,000 residents. CWP's Electric Utility Department supplies electricity to approximately 14,276 customers (12,048 residential properties and 2,228 commercial customers). CWP does not generate power but has contracts with the Florida Municipal Power Association (FMPA) and Orlando Utilities Commission (OUC) to purchase approximately 100 MW of power yearly. In addition, CWP purchases approximately 10 MW of power from Covanta, which derives power from burning municipal waste as its fuel. Municipal waste combustion reduces contributions to landfills, but the process emits carbon dioxide and other harmful emissions into the atmosphere and is neither a renewable nor carbon-free generation technology. In 2023, CWP will also purchase 20 MW of solar energy through its partnership with the FMPA.

CWP is committed to a sustainable future and has passed resolutions to promote its commitment. On January 14, 2008, the CWP City Commission (City Commission) passed a resolution stating that CWP would pursue measures to become a certified Green Local Government through the Florida Green Building Coalition (FGBC). In 2011, CWP was officially certified as a Green Local Government at the Gold level. As part of those efforts, CWP has created a sustainability action plan (SAP) that calls for reducing greenhouse gas emissions (GHG) and targets all electricity consumption from renewable-fueled resources by 2035.

CWP defines sustainability as “responsible and proactive decision-making that minimizes negative impact and maintains a balance between social, environmental, and economic growth to ensure a desirable environment for all species now and into the future.” CWP believes its efforts to invest in sustainability will bring numerous benefits, increasing quality of life, reducing dependence on fossil fuels, protecting and enhancing the environment, and realizing economic value and savings.

CWP contracted Quanta Technology to conduct a study that outlines a roadmap and a feasible action plan for CWP to reach its sustainability objectives. CWP stressed the importance of creating a realistic, practical plan with feasible implementation options. The study was centered around the assessment of four potential targets under consideration for the future CWP energy supply:

- **Target 1:** 100% renewable energy supply by 2050
- **Target 2:** 100% net-zero carbon energy supply by 2050
- **Target 3:** 80% renewable energy supply by 2035 and then 100% by 2050
- **Target 4:** 80% renewable energy supply by 2035, 100% by 2050, with added capacity for storm resiliency

Net-zero carbon refers to a state in which the greenhouse gases going into the atmosphere are balanced by removing carbon from the atmosphere. Generally, utilities plan to achieve net zero by reducing their carbon emissions and acquiring carbon offsets, carbon credits, or renewable energy credits (RECs) to offset any remaining carbon emissions.



CWP does not consider its power contract with Covanta's municipal waste-to-energy plant renewable or sustainable since it combusts waste to generate electricity, emitting carbon and other harmful emissions to the atmosphere. On the other hand, biomass generation is considered a renewable form of energy, even though it also emits carbon and other emissions. Biomass generation is considered renewable since it is a carbon-neutral fuel that traps carbon from the atmosphere during the growth cycle of biofuels and then releases only the same amount of carbon during the combustion process. In addition, unlike solar PV, biomass generation is generally a "dispatchable" (on-demand) power source available at any time of day.

It is important to note that while a net-zero carbon scenario was analyzed, CWP is primarily focused on roadmaps based upon 100% renewable or carbon-free targets. This is primarily due to net-zero carbon plans using carbon offsets or renewable energy credits to reach the intended goal instead of reaching a sustainability goal oriented around true zero-carbon options (see Appendix B: List of Abbreviations and Acronyms for term definitions).

2.2 Scope of Work

The scope of work for the contracted study primarily involved the following activities:

1. **Data gathering:** Quanta Technology presented CWP with a list of over 25 data items to be analyzed and serve as the basis for many of the inputs used in the subsequent modeling effort. CWP diligently provided the data items, including electric utility organization and staff descriptions, maps and descriptions of transmission interconnections, data on generators or energy storage owned by CWP and power purchase agreements, system consumption data including load profiles, historical energy consumption data peak demand, energy forecasts, photovoltaic (PV) data, electric vehicle (EV) data, home electrification forecasts, and historical and current city carbon levels. This data was sometimes supplemented with relevant industry sources where CWP data was unavailable.
2. **Initiation workshop and strategic discussions:** CWP and Quanta Technology held a one-day workshop comprised of several core sessions with targeted discussion, including background discussion, an overview of Quanta Technology's probabilistic integrated resource planning (IRP) process, an alignment around metrics and modeled scenarios, a review and preliminary analysis of supplied data, and several discussions on assumptions and next steps.
3. **Modeling plausible scenarios to reach zero emissions:** Utilizing the provided data items along with the information learned from the initiation workshop, Quanta Technology commenced an effort to customize its IRP process using the supplied data and learned information and used its proprietary capacity expansion program known as probabilistic integrated resource planning (pIRP).

The three agreed scenarios (100% renewable 2050, 100% net-zero carbon 2050, and 80% renewable 2035) were analyzed. They were augmented by capturing a total of 15 different scenarios representing variations in key scenario elements such as adoption rates, load forecasts, pricing variations, and cost of capital/debt. These results better assist CWP in selecting the best path, targets, and portfolio mix to reduce the carbon emissions from their electricity consumption. Ultimately, CWP will need to balance the achievement of targets against affordability, available generation options in Florida, and CWP's comfort level in adopting new generation technologies (e.g., biofuels and green hydrogen).



4. **Results compilation:** Quanta Technology worked collaboratively with the CWP to review draft results and align on assumptions and material to be presented. Additional questions for key stakeholders were also considered and addressed as part of the presentation of the final results. Results are captured in this report and summarized in an executive stakeholder presentation.
5. **Stakeholder presentations:** The executive stakeholder presentation was delivered to a joint session of the Utilities Advisory Board and the Keep Winter Park Beautiful and Sustainable Advisory Board, as well as a separate presentation for the City Commission.



3 PROBABILISTIC IRP MODELING OVERVIEW

3.1 Philosophy and Approach

The robust response from regulators, utilities, and corporations to climate change in recent years has culminated in many declaring their commitments to carbon reduction goals reaching 100% between 2035–2050.

Traditional IRP processes and tools have served the industry well over the past 30 years. However, they are increasingly challenged due to the following:

- Increased uncertainties in load development, electrification, technology, and grid development.
- Reliability concerns are not modeled due to the high penetration of inverter-based resources (IBRs including batteries, solar, and wind).
- The dependence of resource development on the availability of transmission and distribution (T&D) hosting capacities is not co-optimized.
- Resilience requirements associated with intermittent weather-dependent resources and grid vulnerabilities are not modeled.
- Energy storage capacity (i.e., duration) is pre-selected and not optimized.
- Energy storage value is often restricted to energy balancing, while the full benefits stack is not exploited.

Quanta Technology, LLC, and Sandia National Laboratories embarked on a multi-year effort to create a probabilistic IRP (pIRP) software tool to address these challenges and ensure robust pathways to reaching 100% carbon reduction goals while preserving system reliability and resilience.

pIRP is a significant enhancement to traditional IRP tools to assist utilities in evaluating and selecting decision pathways that are flexible and adaptable in the face of increasing uncertainty and changes in technology, policy, consumption patterns, and business models. The traditional scenario planning and sensitivity analysis approaches are augmented with probabilistic analysis and real option valuation methods to balance the costs and risks properly.

The drive to high renewable futures based on intermittent technologies such as solar PV and wind will necessarily drive the need for flexible companion assets such as battery energy storage and demand response (DR), long-duration storage options, and renewable fuel-based solutions. pIRP optimizes the capacity buildout to reduce the overall cost to ratepayers while achieving renewable goals and maintaining system reliability.

Figure 1 shows the complete process of capacity planning, starting with defining policy drivers and resource strategies to derive a set of study scenarios. Policy drivers can include carbon reduction goals, electrification adoption rates, and affordability targets, among other factors. Resource strategy includes the practical aspects of resource development options, such as focusing on self-sufficiency or reliance on imports and a preference toward centralized versus microgrids and distributed resources. The set of scenarios bound the range of various factors that are important to decision-makers.



In addition to defining discrete scenarios, pIRP allows the development of probabilistic uncertainty models of key drivers and factors for more complete characterizations of risks and uncertainties, including resource capacities, cost impacts, and carbon reduction levels.

The output of the pIRP is a set of metrics and resource plans. These can be calculated for each discrete scenario or summarized across the range of probabilistic samples.

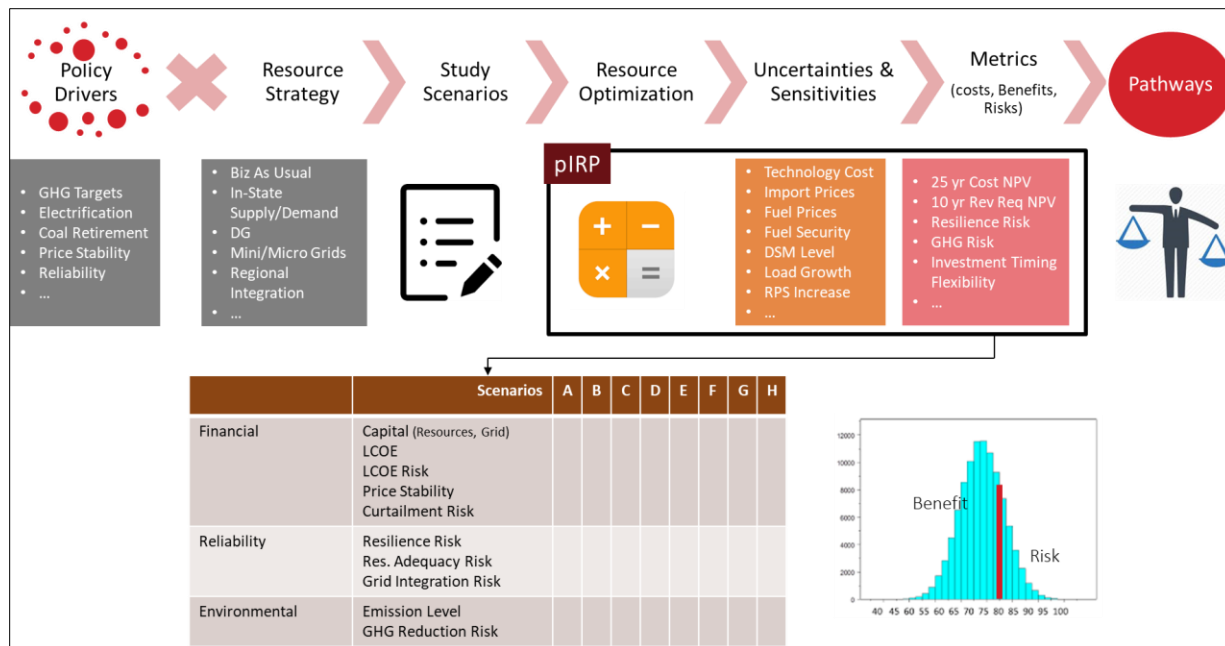


Figure 1. pIRP Process Overview

3.2 pIRP Model Overview

The following are the key modeling features of pIRP:

- The power system is modeled spatially and temporally. pIRP uses a zonal representation for system resources and models distribution hosting capacities, transmission deliverability capability within each zone, and energy transfer capability between zones. The ability to expand these grid capabilities and the associated costs are also modeled. pIRP utilizes time buckets to represent periods of time within a day. The duration of time buckets is flexible, but the finer the resolution, the longer the simulations will require.

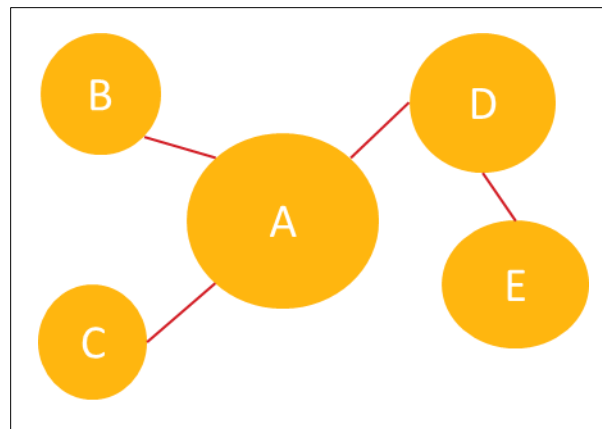


Figure 2. Zonal Representation of the Power System

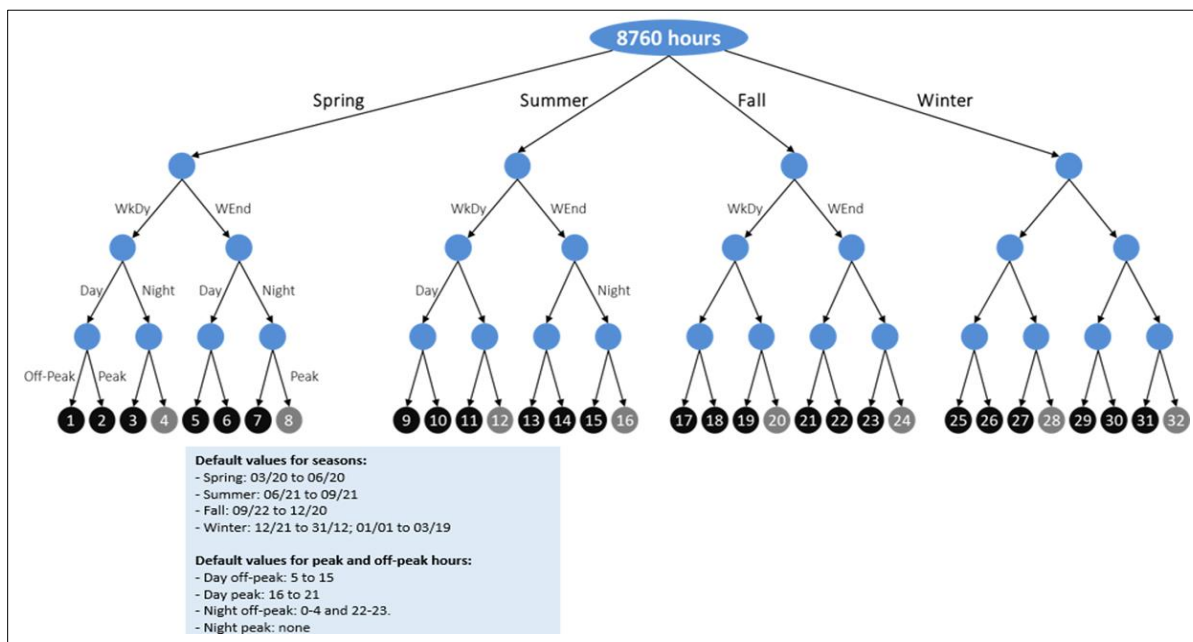


Figure 3. Time Buckets Representation of Time

- The load forecast of each zone can be specified by providing peak and hourly profiles of multiple load components such as residential, commercial, streetlight, EV charging, and storage charge-discharge profiles. The tool provides flexibility in defining load components.
- Users can define many resource types, such as solar PV, nuclear, and renewable energy credits (RECs). Each resource type has many attributes that differentiate it from other resources, such as its capacity credit or effective load carrying capability (ELCC), asset life, ability to store energy, and duration of storage.
- Fuels can be specified regarding their cost projections, carbon content, and whether they are renewable.
- The user specifies existing resources and acceptable types of future resources in each zone. Each resource will have many attributes such as its connectivity to transmission or distribution system, heat



rate, outage rates, per unit capital and operational costs, fuel selection, capacity buildout capability annually, and in total, 8760 production profiles, if applicable, maximum operational hours in a year, minimum generation levels, ramp rates, etc.

- T&D hosting capacities and tie-line power transfer capabilities. The maximum expansion capability and per-unit costs can be specified.
- Uncertainty can be modeled using statistical functions and associated parameters. Data inputs (such as peak load, load growth rates, fuel cost, ELCC, etc.) can be treated as uncertain.
- Resilience against renewable drought can be specified, such as lack of solar or wind resource production over several consecutive days. This resilience aspect, including energy supply during and after storm events, was out of scope for this study. Average weather was assumed in the development of resource portfolios.
- pIRP imposes several constraints, including energy balance for each zone at the time bucket, capacity requirements in each zone, including reserve margins, ramping requirements to ensure frequency stability, variable resource penetration limits, and resilience targets.
- pIRP formulates the capacity expansion as a linear program (LP) and runs a Monte Carlo using Latin hypercube sampling to generate probable outcomes.
- The user specifies for each zone the renewable targets over time.
- The user selects the duration of the optimizations (1–30 years).
- pIRP co-optimizes resource capacity buildout (including retirements), resource dispatch and curtailments, and T&D grid expansion to achieve minimal cost to ratepayers while achieving renewable targets and reliability constraints. Figure 4 summarizes the various components of pIRP.

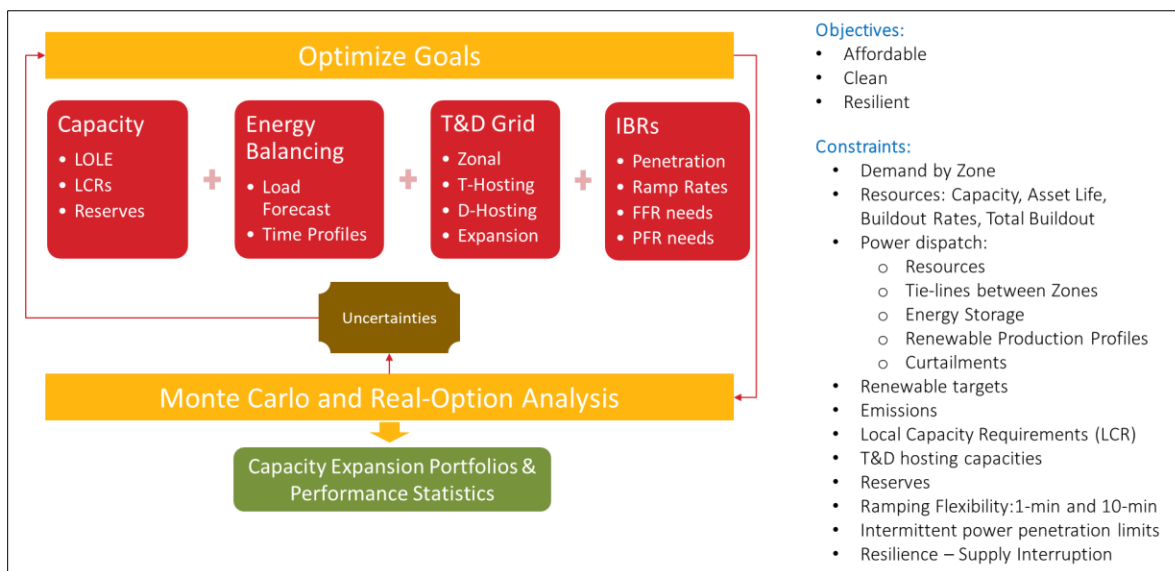


Figure 4. pIRP Modeling Capability

- The output of pIRP can be summarized physically and financially for each zone and each year (sample output is shown in Figure 5, Figure 6¹, and Figure 7).

¹ Technologies referenced in Figure 6 and elsewhere in the report are defined in Table 16 in Appendix B: List of Abbreviations and Acronyms.

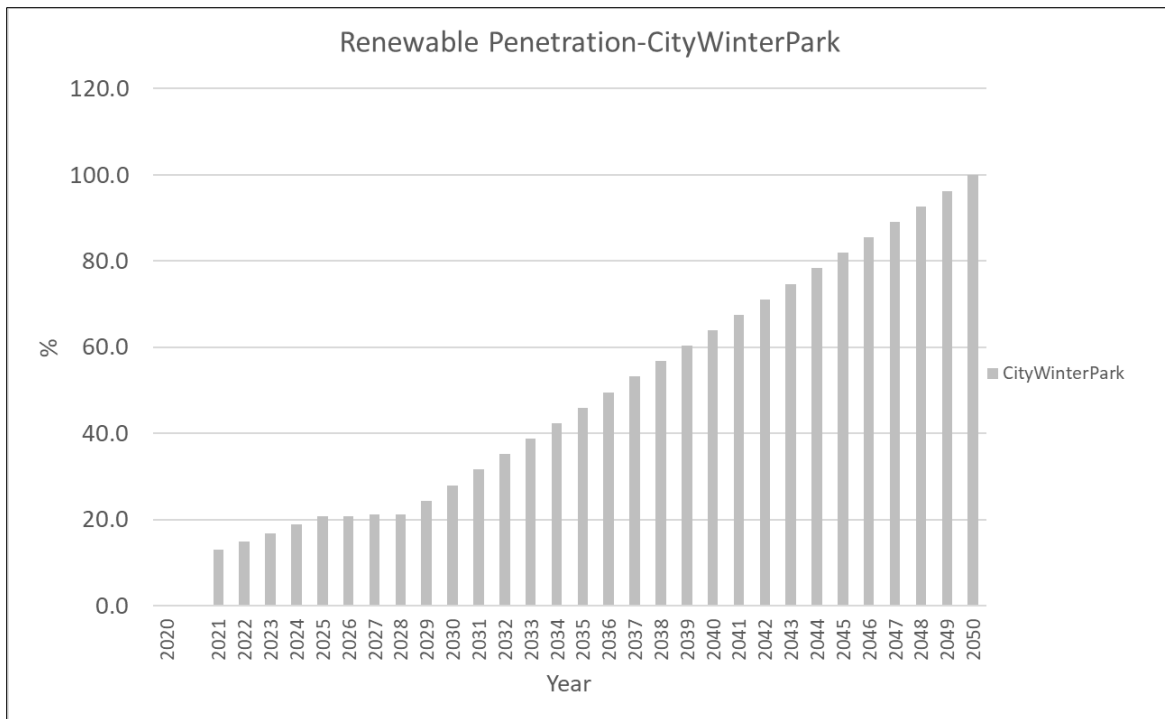


Figure 5. pIRP Sample Output 1

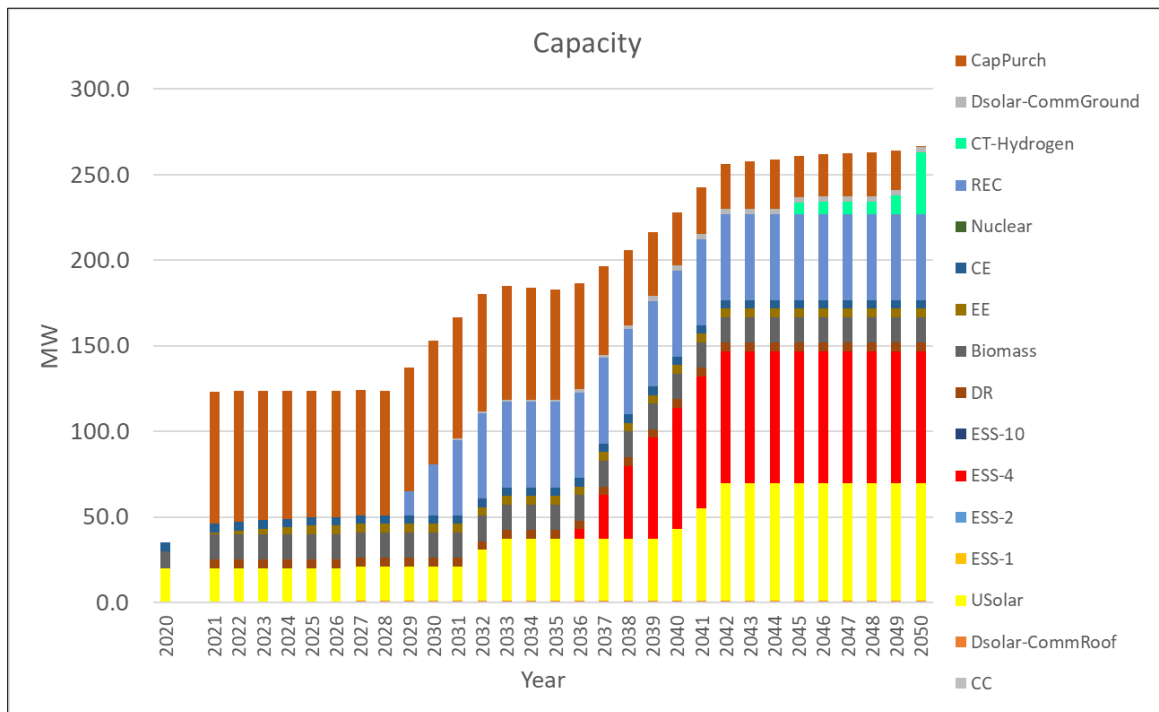


Figure 6. pIRP Sample Output 2

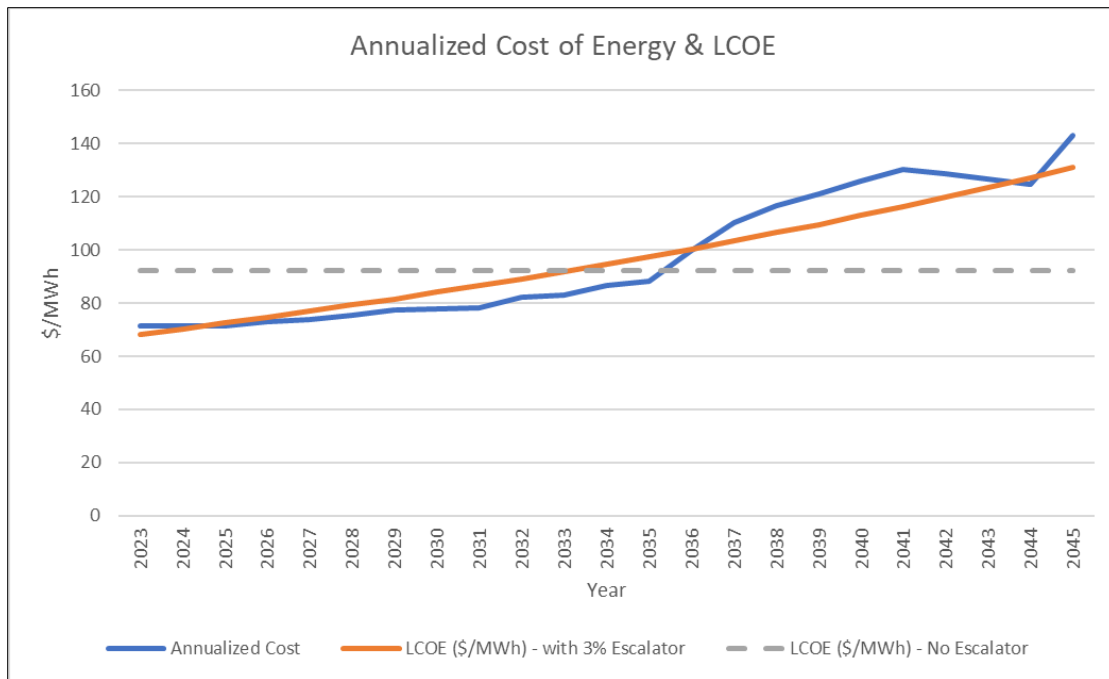


Figure 7. pIRP Sample Output 3



4 FORECASTS AND OTHER DATA INPUTS

4.1 Overview

Any long-range analysis of supply resource options requires much data, including historical data, current and future energy resource characteristics, and forecasts regarding future conditions and costs. The data requirements required for this study can be generally categorized into the following topics:

1. Load forecast
2. Distributed solar and storage
3. EV growth
4. Renewables and battery storage costs
5. Energy efficiency (EE) and DR forecast
6. Natural gas fuel price forecast
7. Renewable energy credit (REC) Pricing
8. Financial assumptions

Quanta Technology worked with CWP to develop a set of historical data and then determine forecasting methods and assumptions that would provide the needed input data to the terminal year of the study (2050). These forecasted data and assumptions provide the foundation of the technical analysis used to select the preferred resource portfolios that could meet CWP renewable targets at the lowest costs. Since developing a single accurate forecast for the next 27 years is nearly impossible, planners typically develop multiple forecasts of conditions intended to provide a likely range of future outcomes for most of the needed assumptions.

The following subsections summarize the data sources and methods used to create forecasts for each planning element.

4.2 Gross Customer Usage

To estimate the type and cost of energy resources needed by CWP to achieve its 2050 renewable targets, the analysis must first start with a forecast of the energy and peak demand of CWP customers. CWP was able to provide Quanta Technology with ten years of historical data. The most recent ten years of CWP annual energy are shown in Figure 8.

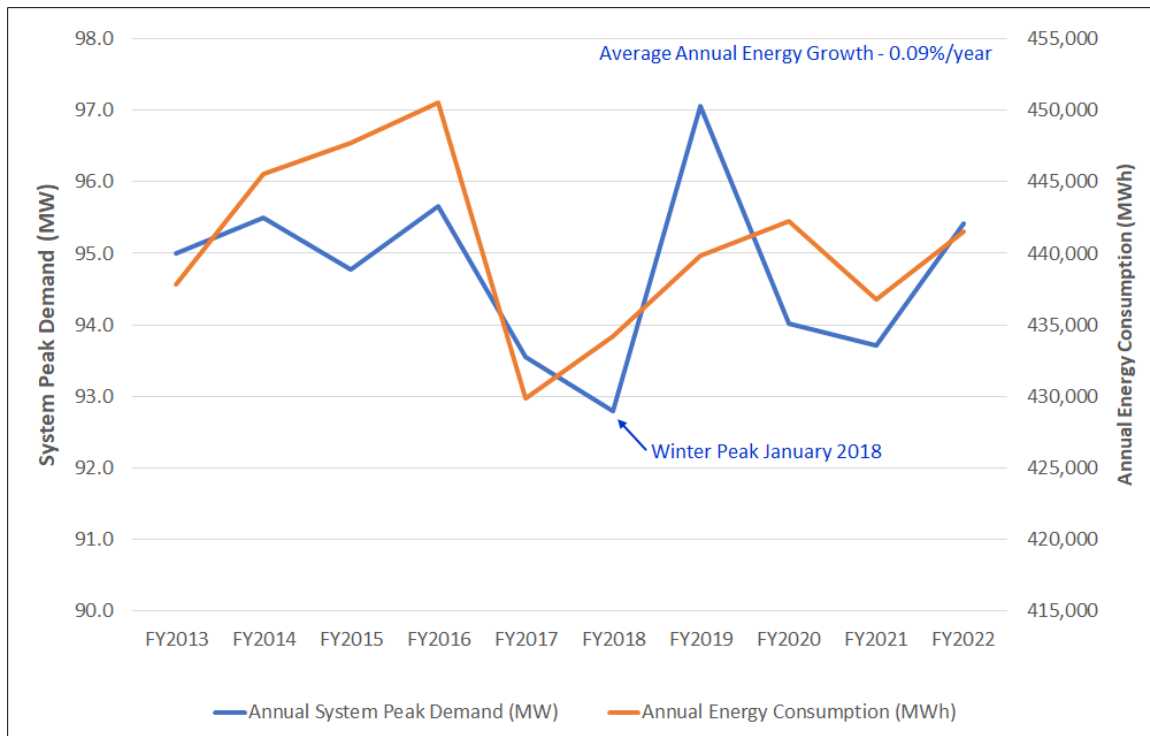


Figure 8. Historical Annual CWP Energy Consumption and System Peak Demand

The average annual energy use growth rate for these last ten years has been 0.09%. This was virtually zero growth in sales when much of this time included a generally robust economy and real estate market. Each of the last six years (2017–2022) has recorded lower annual sales than the previous three years (2014–2016). While a six-year downward trend is significant, the time period included multiple years of impacts from the COVID-19 pandemic and may not predict future energy consumption.

provides the historical annual load factor for CWP for the last ten years, which has been remarkably consistent, indicating that there has been very little change in the demand served by CWP.

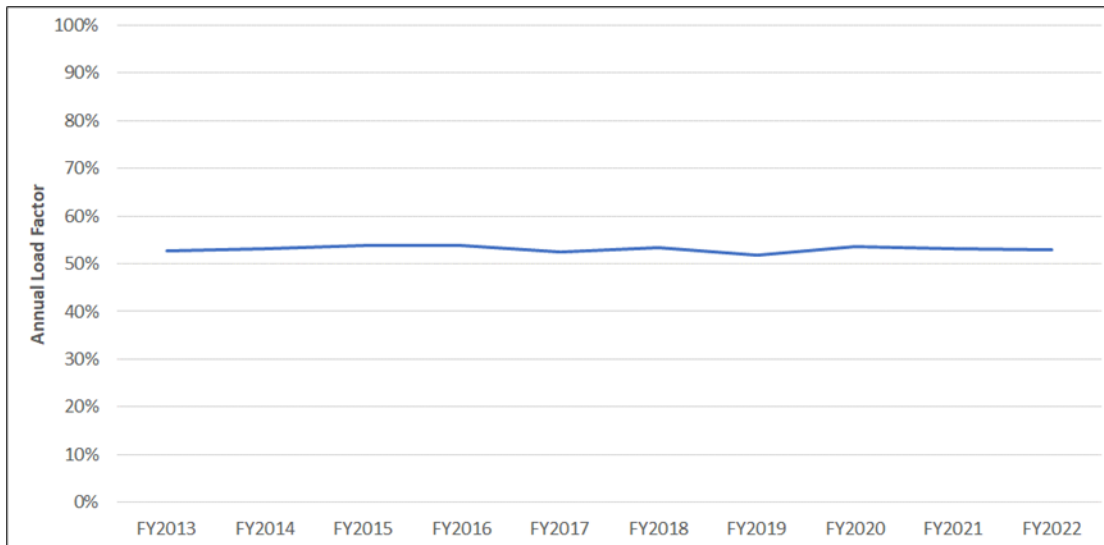


Figure 9. CWP Annual System Load Factor

CWP did not have a recent, long-range energy and demand forecast that could be used for this analysis. Developing a long-range forecast of CWP energy and demand using typical methods² was beyond the scope of this analysis. Even with excellent data and a rigorous methodology, forecasting is an inexact science. Since this analysis aimed to assess the feasibility of CWP achieving its 100% renewable targets, creating a precise CWP forecast was less important to the results than analyzing results across a range of forecasts that would serve to bracket the CWP energy forecast. Since central Florida is served by multiple utilities, Quanta Technology and CWP staff decided that the load growth projections of other nearby Florida utilities could serve as potential, reasonable proxies for the CWP's expected growth.

The Florida Public Service Commission (PSC) requires that each of the large utilities in Florida file a ten-year site plan (TYSP) in April of each year, which includes information on the utilities in the state. Among the data in these filings is an annual forecast of its energy requirement for the next ten years. Quanta Technology reviewed the individual 2022 TYSP filings of the utilities and the summary of all the files prepared by PSC: Review of the 2022 TYSP of Florida's Electric Utilities³. From the reporting utilities, Quanta Technology selected four utilities that were believed to provide useful input to estimate the future CWP growth rate: OUC, FMPPA, Florida Power and Light (FPL), and Tampa Electric Company (TECO). The ten-year energy forecasts for each of these utilities were normalized to their respective 2022 sales and then charted in Figure 10.

² Typical energy forecasts for long range utility resource planning are based on weather normalized data and end-use or class-differentiated, econometric, multivariable regression.

³ FL PSC Review of the 2022 Ten-Year Site Plans of Florida's Electric Utilities, October 2022.

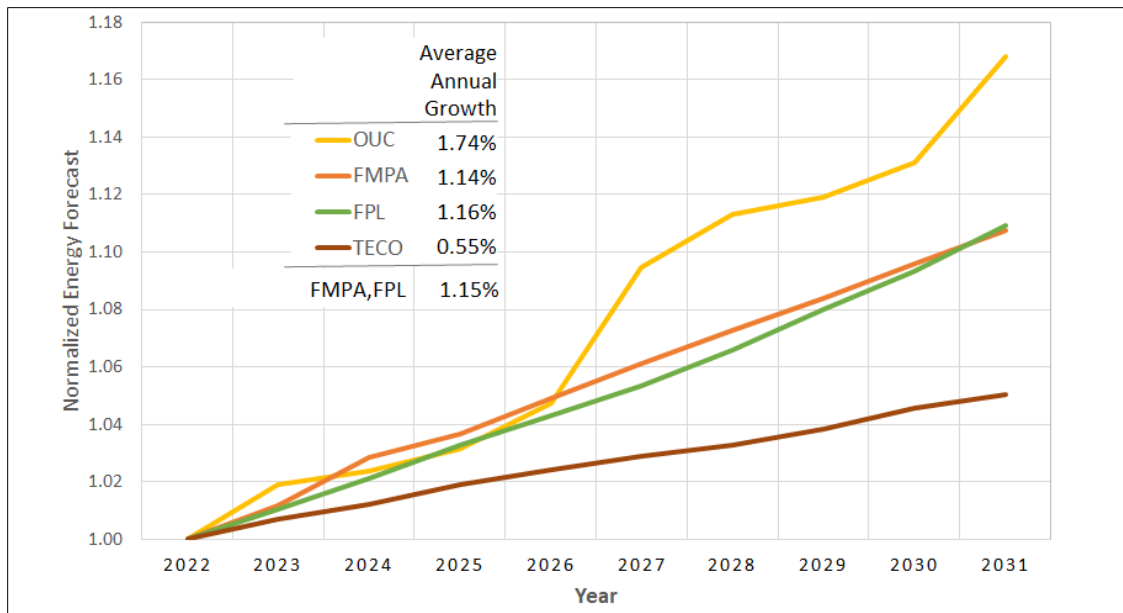


Figure 10. Forecast of Florida Utility Growth Rates

As can be seen in Figure 10, the average annual growth rates vary from a high of 1.74% for OUC to a low of 0.55% for TECO. OUC, FMPA, and FPL have a similar growth trajectory in the first four years (2022–2026) until OUC diverges with a significantly higher growth rate in the last five years (2027–2031) than the other two utilities.

CWP is already densely developed with limited opportunity for future growth from new customers or developing vacant land. Its historic growth over the last nine years has been virtually flat, averaging only 0.09% yearly. CWP's future growth will be driven by the expanded energy use from its existing customers through increasing the energy density of existing customers, such as by expanding floor space and end uses on existing residential and commercial lots.

After reviewing the growth projections in the 2022 TYSP of the nearby utilities, Quanta Technology selected an expected CWP energy growth rate consistent with CWP's average annual growth rate over the last ten years, or 0.09%. This average reflects a continuation of virtually flat load growth for the embedded end users and customers. This expected load growth does not explicitly consider the potential impacts of end-use electrification (e.g., changing gas space and water heating to electric appliances). However, as discussed later in this report, Quanta Technology has addressed the forecasted impacts from increased distributed generation (principally distributed solar), distributed batteries, and EV charging separately as energy and load modifiers to the embedded system energy and peak demand.

Quanta Technology selected the annual average of the projected FMPA and FPL energy growth, or 1.15%, as the value of the high- or upper-end load forecast for this CWP study. While still low, this 1.15% represents a significant annual growth for embedded load, particularly when the growth rate does not include the expected impacts from EV charging. Quanta Technology believes the 1.15% annual growth should be on the upper end of growth rates that CWP could expect. This upper-end growth was selected for CWP since a higher growth rate was thought to make achieving the target renewable generation more



difficult. Figure 11 below shows the expected and high energy forecast for CWP, and Figure 12 provides a forecast of the CWP system's peak demand.

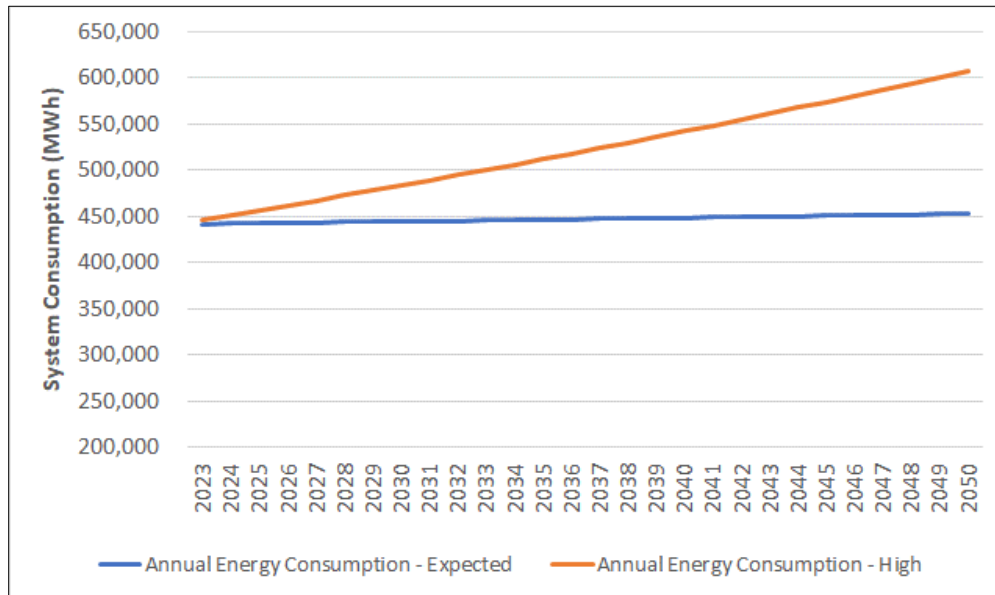


Figure 11. CWP Forecasted Annual Energy Consumption

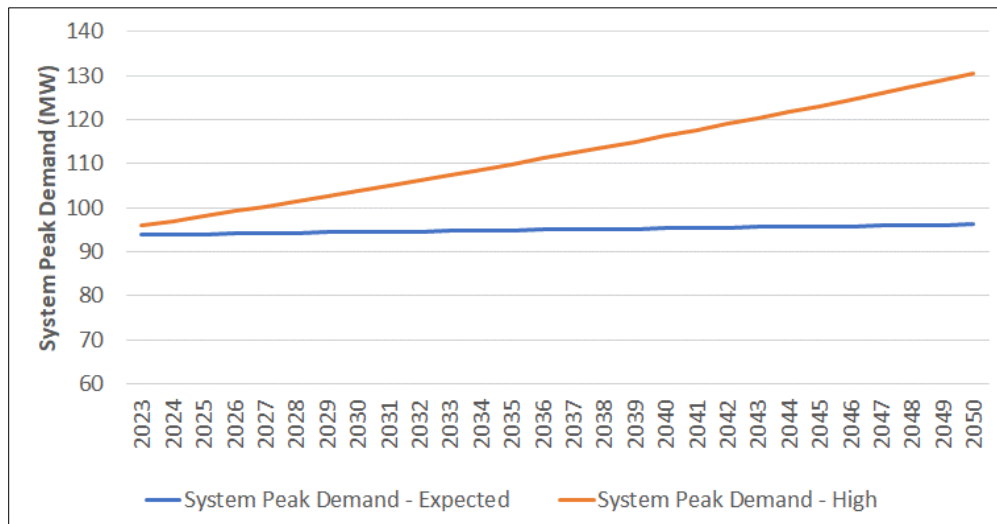


Figure 12. CWP Forecasted System Peak Demand

The energy and demand forecasts in the prior charts are forecast prior to any adjustment for the impacts of EE, DR, and electric vehicles (EV). Future loads are expected to vary from the values in Figure 11 and Figure 12 due to increases in EV charging loads and reductions due to energy efficiency programs that CWP plans to implement for both customer and city-owned facilities.



4.3 Distributed Solar and Storage

Distributed solar and storage are highly dependent on various industry forces, including technology advancements in EVs, storage, and PVs, as well as consumer adoption. The technology model for distributed solar and storage is considered mature technology that assumes:

- EV chargers will incrementally improve
- PV modules will incrementally improve
- Battery storage is commercially available for households and modeled after the size of a Tesla Powerwall

CWP and its residents have some influence on distributed solar and storage adoption rates, and these rates have further been segmented into different categories:

- Residential single-family homes
- Multifamily homes
- Commercial buildings
- CWP assets
 - Commercial buildings
 - Industrial areas

Appendix D: NREL PVWatts Solar Production Estimate shows the NREL PV power estimate for a 1000 sq ft roof, which was used on a unit basis to provide estimates for solar production. Multiple residential single-family homes (SFH) adoption assumptions for solar, storage, and EV were created for this study. Solar rooftop installations in Florida expanded due to state tax credits. Without tax credits, adoption slowed drastically. We do not assume tax credits will be the sole driver of adoption, but they will certainly be one of the key drivers. Early EV adopters have also been shown to be closely aligned with those SFH that have installed solar PV. Our model assumes growth across a mix of three types of SFHs with rooftop solar PV, batteries, and EV chargers:

1. An SFH with 500 sq ft of solar PV panels, a Tesla Powerwall battery, and an EV charger that draws, on average, 24 kWh per day.
2. An SFH with 743 sq ft of solar PV panels and a Tesla Powerwall battery that has a net-zero energy draw per day. A net-zero energy installation has sufficient solar PV energy production capacity to offset 100% of the location's annual energy consumption. No EV is included in this SFH variation.
3. An SFH with 928 sq ft of solar PV panels, a Tesla Powerwall battery, and an EV charger that has a net-zero energy draw per day.

Forecasts for the residential solar PV and batteries are provided in Appendix E: Residential Rooftop Solar and Battery Forecasts and Appendix F: Forecast of Rooftop and Ground Mount Solar PV on CWP-Owned Property. The residential batteries in these installations are assumed to be controlled by the homeowner.

Multifamily homes and commercial buildings are considered net consumers of energy. Forecasting solar PV and EV charger installations on landlord-owned multifamily homes is complex principally because they are site-specific and landlord-specific. It is likely that solar PV and EV chargers on landlord-owned, multifamily homes will significantly lag the installations for SFHs and have only a small impact on CWP



loads within the next 5–10 years. For these reasons, Quanta Technology did not include a separate forecast for the multifamily homes.

For CWP-owned assets, the adoption rate of solar on these commercial buildings was based on the year of expected roof replacements. For buildings that did not have an estimated year of roof replacement, the expected solar kW's were evenly distributed until 2050. Industrial areas such as the CWP lift stations were included in this analysis.

In addition, Quanta Technology developed an estimate of the EV charging that will be performed by business commuters who work within the CWP and charge their vehicles at work during the day.

For each of the elements discussed in this section, an expected forecast was created, as well as a high and low forecast. These three forecasts of the contributions from the distributed solar, storage, and EV charges were then added to the different scenarios as noted in Table 8 and Table 9.

This study did not consider or include any potential electric grid upgrades that may be needed to enable the expected large influx of distributed solar and EV charges. Evaluating the grid requirements as residents install more distributed solar and EV chargers will be part of future studies.

4.4 Electric Vehicles

Like the development of the CWP energy forecasts for this study, Quanta Technology looked to the forecasts of other Florida Utilities and their 2022 TYSP to develop a forecast of CWP EV charging loads. Table 1 summarizes the expected growth in the number of EVs in each of the utilities noted⁴.

Table 1. 2022 TYSP: Estimated Number of EVs

Year	FPL	DEF	TECO	JEA	GRU	TAL	Total
2022	116,202	33,325	12,218	4,220	1,065	1,158	168,722
2023	162,141	42,404	14,890	5,477	1,331	1,469	227,712
2024	220,697	52,918	17,742	6,939	1,664	1,832	301,792
2025	293,809	65,134	20,785	8,589	2,080	2,253	392,650
2026	391,240	79,267	24,119	10,419	2,600	2,736	510,381
2027	512,104	95,455	27,808	12,441	3,250	3,288	654,346
2028	657,776	114,021	31,977	14,689	4,063	3,921	826,447
2029	831,693	135,439	36,561	17,187	5,078	4,640	1,030,598
2030	1,037,328	160,059	41,599	19,951	6,348	5,459	1,270,744
2031	1,273,609	188,139	47,156	22,993	7,935	6,378	1,546,210

⁴ FL PSC Review of the 2022 Ten-Year Site Plans of Florida's Electric Utilities, October 2022, Table 2.



Table 2 summarizes the expected annual energy consumption for cumulative EV charging in each utility noted.⁵

Table 2. 2022 TYSP: Estimates EV Annual Charging Consumption (GWh)

Year	FPL	DEF	TECO	JEA	GRU	TAL	Total
2022	231	24	35	17	4	4	314
2023	401	54	46	24	5	5	534
2024	623	92	57	32	6	6	816
2025	908	139	70	41	8	7	1,173
2026	1,289	199	-	51	9	8	1,642
2027	1,771	275	101	62	12	10	2,231
2028	2,361	367	118	75	15	12	2,948
2029	3,075	470	138	89	18	14	3,804
2030	3,930	586	160	104	23	17	4,819
2031	4,913	712	183	121	29	20	5,977

Table 3 summarizes the expected annual energy consumption per vehicle for charging EVs in each utility noted. The per-vehicle energy consumption in Table 3 is derived by dividing the annual charging energy for all EVs shown in Table 2 by the annual number of EVs in Table 1.

Table 3. Annual Energy Consumption Per EV (kWh)

Year	FPL	DEF	TECO	JEA	GRU	TAL	Average
2022	1,988	720	2,832	4,076	3,568	3,022	1,862
2023	2,473	1,276	3,056	4,400	3,606	3,063	2,345
2024	2,823	1,737	3,230	4,626	3,606	3,057	2,704
2025	3,090	2,133	3,382	4,797	3,606	3,063	2,987
2026	3,295	2,511	-	4,914	3,615	3,070	3,216
2027	3,458	2,876	3,625	5,008	3,600	3,072	3,409
2028	3,589	3,217	3,700	5,085	3,593	3,086	3,567
2029	3,697	3,473	3,772	5,149	3,604	3,103	3,691
2030	3,789	3,662	3,834	5,198	3,607	3,114	3,792
2031	3,858	3,785	3,881	5,241	3,604	3,120	3,866

⁵ FL PSC Review of the 2022 Ten-Year Site Plans of Florida's Electric Utilities, October 2022, Figure 15.



Quanta Technology used the FPL data in the tables above, together with FPL service territory population and FL State vehicle registration data, to estimate the percent registered vehicles in FPL's service territory expected to be EVs for the next ten years.

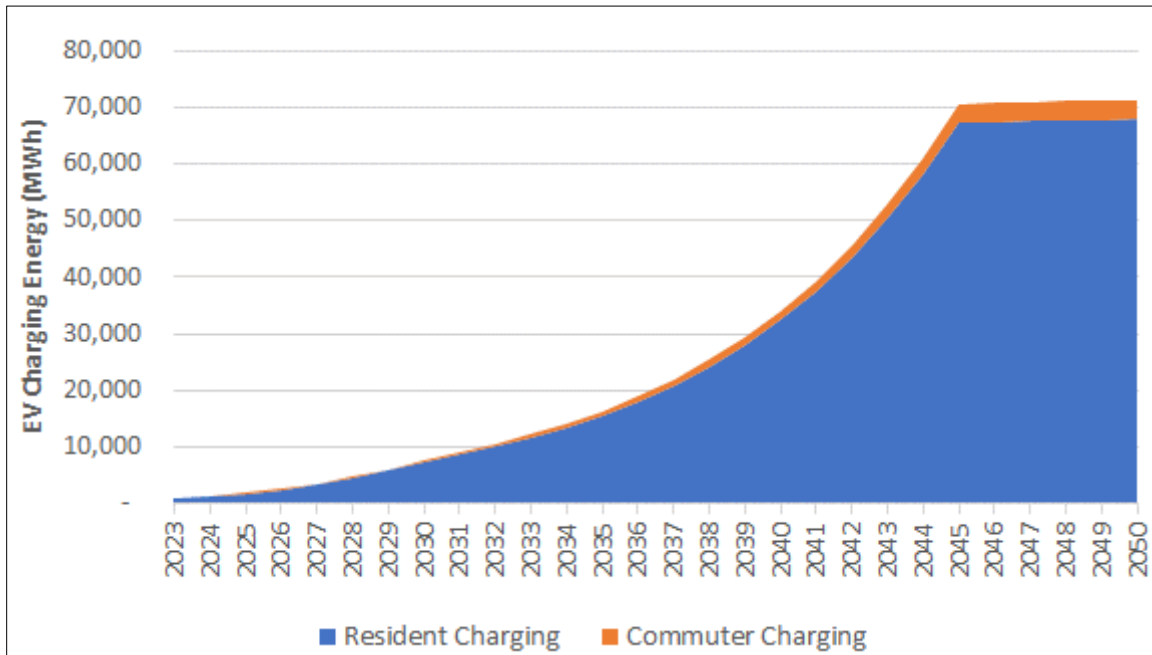


Figure 13. Resident and Commuter Annual EV-LDV Charging Energy: Expected Scenario

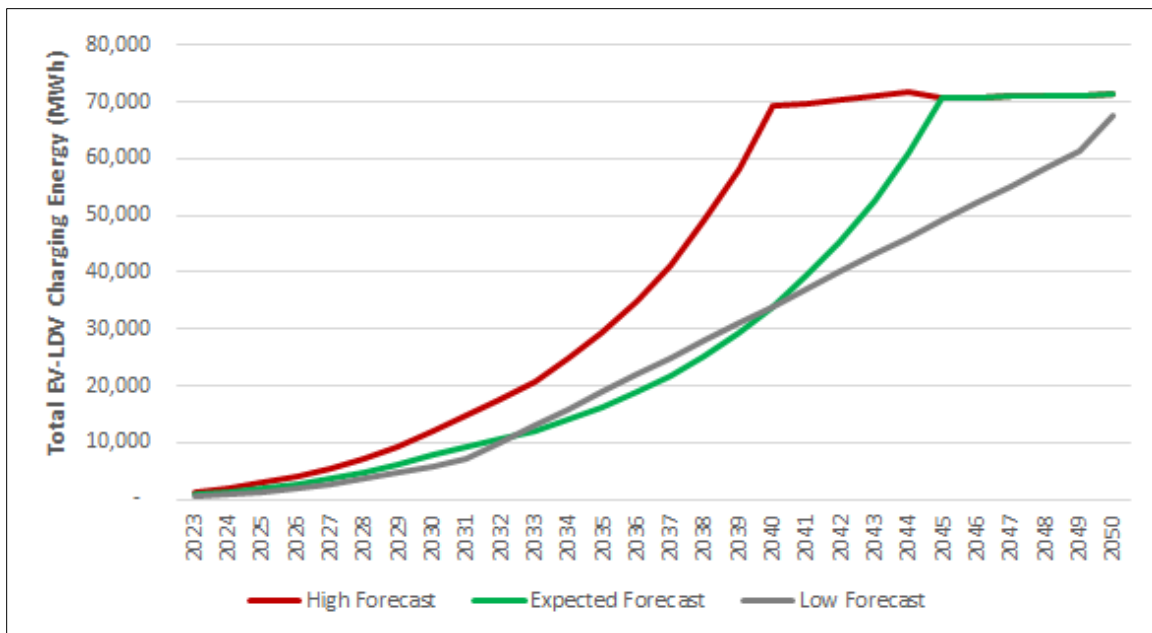


Figure 14. Annual Resident and Commuter EV-LDV Charging Energy



As seen in Figure 14, the high and expected forecasts each reach a maximum EV penetration, estimated to be 95% of registered light-duty vehicles (LDVs). The high forecast reached this maximum in 2040, and the expected forecast reached this maximum in 2045. The low forecast is still growing in the final year of the forecast and will reach a maximum of 90% penetration in the year 2050. Since EVs and their charging load are a new addition to utility planning, much uncertainty is associated with forecasting how rapidly the charging load will grow. Assessing higher growth rates of EVs that, in turn, have higher charging impacts is prudent in a feasibility analysis such as this study. In assessing new loads, it is better to be conservatively high rather than too low when assessing the costs of serving customer loads with a new set of resources. The forecasts of the LDV EVs for CWP residents are provided in Appendix G.

Adoption of residential electric vehicles, solar panels, and energy storage/batteries are assumed to be closely aligned and increasingly adopted as roofs and vehicles are replaced. The study expects a reduction in net energy supplied to residents. The study does NOT assume significant buyback of solar power under net metering. It does not include any potential “Virtual Power Plant” benefits, although both may occur if “Time of Use” rates are implemented as recommended. The study projects that residents will invest in electric vehicles, rooftop solar, and batteries voluntarily at personal cost with the following forecasts by 2042:

- Up to 95% of the registered vehicles in CWP may be electric vehicles.
- Approximately 35% of residential rooftops will have solar PV installed, with the capacity to generate approximately 49,000 MWh of energy per year, which is approximately 11% of the total CWP requirement.
- Approximately 35% of residences will have battery energy storage systems (BESS) installed.

4.5 Generation Technologies and Battery Storage

Quanta Technology used PPA pricing from existing CWP contracts and other data available for Florida power costs to estimate that future purchases from the Florida grid would. Florida currently relies principally on fossil-fueled resources. However, as FPL and other utilities evolve their system to cleaner resources, the power costs from the Florida grid are estimated to escalate at 2% annually, regardless of the CWP decisions for its power supply. Quanta Technology also assumed that the purchased power market in Florida would continue to provide CWP options to purchase specific types of power from large suppliers, such as FPL, OUC, and the FMPPA.

Quanta Technology used the technical characteristics for optional new resources that could be constructed in the future to fulfill the needs of CWP and other Florida utilities. It cost data from the National Renewable Energy Laboratory (NREL) Annual Technology Baseline (ATB) and a 2022 NREL Solar and Energy Storage Cost Benchmarks Analysis⁶ (collectively referred to as NREL data). While FMPPA will be the source of some early solar PV contracts, it may not be the provider for future contracts. The source of our future cost estimates is based on NREL and DOE data. The NREL data provides an extensive database on renewable, fossil, and energy storage technologies that are regularly used as a basis for future costs in utility resource planning. The NREL data also provides projected costs of technologies, for example, the decreases expected in solar PV and battery costs from greater manufacturing volume and other

⁶ Ramasamy, Vignesh, Jarett Zuboy, Eric O’Shaughnessy, David Feldman, Jal Desai, Michael Woodhouse, Paul Basore, and Robert Margolis. 2022. U.S. Solar Photovoltaic System and Energy Storage Cost Benchmarks, With Minimum Sustainable Price Analysis: Q1 2022. Golden, CO: National Renewable Energy Laboratory. NREL/TP-7A40-83586. www.nrel.gov/docs/fy22osti/83586.pdf.



technology advances. Table 4 provides a summary of the costs for the set of technologies that were considered in the resource plan for CWP.

Table 4. Generation and Storage Technologies Costs

Technology	Installed Cost \$/kW (REC in \$/MWh)	Cost Year	Annual Cost Escalation	Cost Stabilization Year	Fixed O&M (\$/KW- yr)	Variable O&M (\$/MWh)
Combustion Turbine (CT)	\$1,000	2021	2%	10	15.00	2.00
Internal Combustion Engine (CE)	\$650	2021	2%	5	30.00	10.00
Green Hydrogen-Fueled CT (CT-Hydrogen)	\$1,500	2021	2%	10	20.00	4.00
City Owned Distributed Solar, Rooftop (Dsolar-CommRoof)	\$2,208	2021	-2%	10	18.10	0.00
City Owned Distributed Solar, Ground-mount (Dsolar-CommGround)	\$2,328	2021	-2%	10	17.20	0.00
Utility Scale Solar PV (USolar)	\$1,386	2021	-2%	10	16.10	0.00
Battery Energy Storage System (BESS)–1 hr. (ESS-1)	\$710	2021	-2%	5	15.00	0.00
BESS–2 hr. (ESS-2)	\$1,070	2021	-2%	5	14.00	0.00
BESS–4 hr. (ESS-4)	\$1,790	2021	-2%	5	12.00	0.00
BESS–10 hr. (ESS-10)	\$3,950	2021	-2%	5	10.00	0.00
Biofuel Internal Combustion Reciprocating Engine(Biomass)	\$500	2021	2%	5	10.00	0.00
Demand Response (DR)	\$50	2021	2%	5	10.00	0.00
Energy Efficiency (EE)	\$20	2021	2%	5	10.00	0.00
Renewable Energy Credit (REC)	\$2.5	2021	2%	10	0.00	0.00

The general industry consensus is that the forecasted installed cost for solar and battery storage technologies will continue to decline in cost for the foreseeable future through continued manufacturing and solar PV performance improvements. In addition, legacy technologies such as combustion turbines are expected to continue to increase in cost based on inflationary pressures. The NREL ATB projects cost declines in renewable technologies and battery storage and cost increases in legacy technologies through 2050. Supply disruptions and changing tariff structures resulted in an increase in solar PV costs in 2021 and 2022. These recent cost increases are expected to be temporary as the solar PV manufacturers adjust in response to the changing world market.



To remain conservative in the cost projections of future technology costs used in this study, Quanta Technology estimated a lower near-term price decline for solar PV and batteries than the NREL ATB estimate. In addition, Quanta Technology estimated the price declines would stabilize after ten years for solar PV and after five years for battery storage. Further price increases for the legacy generation technologies also had a similar end to their forecasted continuing escalation where their costs would stabilize. The combination of these adjustments to the future escalation of technology costs provides a conservatively high cost for solar PV and battery storage and a conservatively low cost for legacy technologies.

The graph shown in Figure 15 presents the annual costs of the subset of technologies that were ultimately included in the supply portfolios described later in this report.

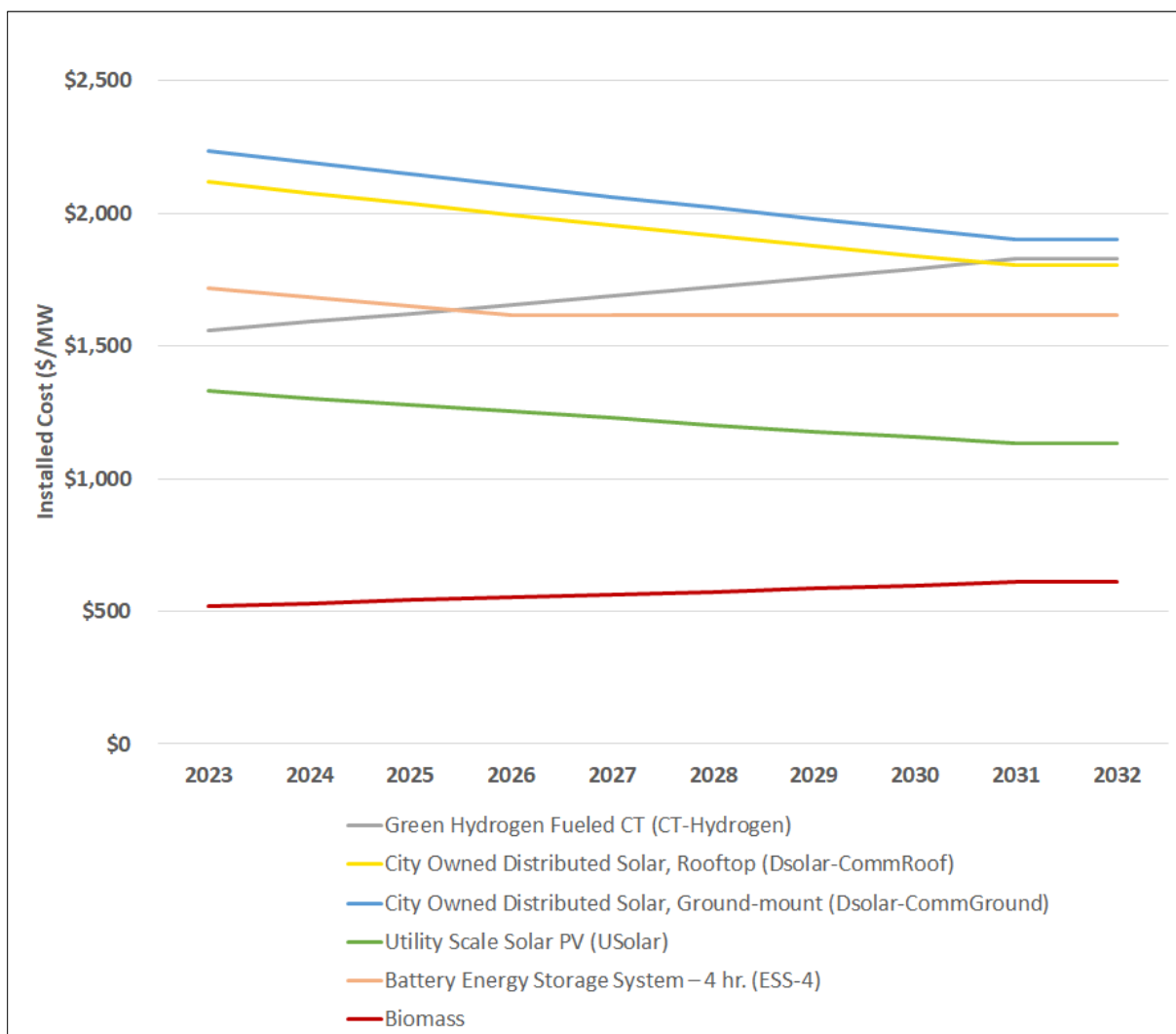


Figure 15. Projections of Generation and Storage Technologies Installed Costs

Table 5 summarizes the projected solar PV costs.

**Table 5. Solar PV Costs for Key Milestone Years (Installed Cost—\$/kW)**

Solar PV Technology	2023	2035	2042	2050
Residential Rooftop Solar	\$3,400	\$2,892	\$2,892	\$2,892
Commercial Solar PV, Rooftop (Dsolar-CommRoof)	\$2,121	\$1,804	\$1,804	\$1,804
Commercial Solar PV, Ground-mount (Dsolar-CommGround)	\$2,236	\$1,902	\$1,902	\$1,902
Utility Scale Solar PV (USolar)	\$1,331	\$1,253	\$1,253	\$1,253

Table 6 summarizes the costs for battery storage installations.

Table 6. Battery Storage Costs for Key Milestone Years (Installed Cost—\$/kWh)

Battery Energy Storage Technology	2023	2035	2042	2050
Residential BESS—2.5 hr	\$1,443	\$1,359	\$1,359	\$1,359
Commercial BESS—4 hr	\$774	\$729	\$729	\$729
Utility Scale BESS—4 hr (ESS-4)	\$514	\$484	\$484	\$484

Quanta Technology did not consider some of the technologies listed in the NREL data since they were inappropriate for CWP and Florida (e.g., hydroelectric, pumped storage, and distributed wind technologies). The CAPEX costs shown in Table 4 include assumed interconnections costs but do not include any grid upgrades. The costs of solar PV and utility-scale battery storage technologies are assumed to decline by 2% annually (based on the Annual Cost Escalation data) until 2026 (based on the Cost Stabilization Year data) and remain flat afterward. In 2021, a utility-scale solar PV cost was assumed to be \$1,386/kWac (assuming a DC-to-AC ratio of 1.2).

The cost of natural gas is assumed to be \$3.00/MMBTU in 2019, and it is expected to increase at a 2% escalation per annum.

The utility and transportation industries are planning to use an increasing quantity of batteries in their efforts to reduce carbon emissions. Mining minerals, manufacturing, and disposing of these increasing quantities of batteries bring environmental issues to a scale new to the world economy. At the request of CWP, Quanta Technology has prepared a summary of the lifecycle considerations of batteries in Appendix C: Battery Lifecycle Considerations.

4.6 Energy Efficiency and Demand Response

According to the United States Department of Energy, EE and DR can be described as:

Energy efficiency is the use of less energy to perform the same task or produce the same result. Energy-efficient homes and buildings use less energy to heat, cool, and run appliances and electronics, and energy-efficient manufacturing facilities use less energy to produce goods.



Energy efficiency is one of the easiest and most cost-effective ways to combat climate change, reduce energy costs for consumers, and improve the competitiveness of U.S. businesses. Energy efficiency is also a vital component in achieving net-zero emissions of carbon dioxide through decarbonization.⁷

Demand response provides an opportunity for consumers to play a significant role in the operation of the electric grid by reducing or shifting their electricity usage during peak periods in response to time-based rates or other forms of financial incentives.⁸

Quanta Technology's experience with other utilities confirms this statement. Most utilities find that numerous EE measures, such as programs that incentivize the shift to higher efficiency appliances and building envelopes⁹, are much less expensive than purchasing or generating the electricity saved by these programs. In essence, many EE measures cost the utility less to manage the EE program and pay incentives than to generate or buy the energy. It is widely accepted that any program to reduce the environmental impacts of electric energy supply should include a robust energy efficiency program that first attempts to reduce the energy required cost-effectively.

DR programs are focused on reducing a utility's peak demand on a daily or seasonal basis. The value of the system peak demand dictates the generation and storage capacity that must be built or purchased and the capacity of the transmission and distribution system needed to deliver the energy. Reducing the system peak demand can reduce, delay, or eliminate costs through the utility system. DR programs use various measures to reduce or eliminate the demand for electrical end uses during peak demand. With the introduction of distributed solar and batteries in homes and businesses, DR programs can be designed to incentivize customers to use a portion of their battery's stored energy when the most energy is needed. Like the EE programs, Quanta Technology recommends that CWP implement a comprehensive DR program for city facilities and residential and commercial customers to minimize CWP's future generation, transmission, and distribution capacity needs.

Quanta Technology had limited data on CWP's forecasted plans and projected impacts of energy efficiency programs for the CWP system. However, since these energy efficiency programs can generally offer the lowest cost "energy resource" available to utilities, Quanta Technology estimated the impacts that the future energy efficiency programs implemented by CWP, together with the energy efficiency improvements implemented by CWP customers on their own, will be approximately 2% of the total CWP energy requirement in the early years of the study and grow to approximately 10% in 5 years and remain approximately constant for the remainder of the study¹⁰. The DR was estimated to be constant at 5 MW for the study period. A total DR of 5 MW was considered easily achievable in a program that includes customer and city-owned facilities. These high-level estimates were deemed reasonable because CWP does not have an existing EE and DR program in place for its retail customers.

⁷ U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, <https://www.energy.gov/eere/energy-efficiency>.

⁸ U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, <https://www.energy.gov/oe/demand-response>.

⁹ Examples of EE measures include light-emitting diode (LED) lighting, heat pumps to replace air conditioners and resistance heating, increased attic and wall insulation, window and doors with better insulation values and air seals.

¹⁰ The EE estimate does not address growth of individual end-use energy efficiency improvements. It should be noted that while EE programs do result in lost utility revenue due to the reduction in MWh sold, these programs are also accompanied by a reduction in energy supply costs. In addition, all DR and EE measures should be selected based on the ability to implement and manage them with a positive benefit to cost ratio.



4.7 Fuel Price

Each Florida utility filing a TYSP also files a fuel price forecast for the fuel used in their plans. The PSC has compiled and averaged the fuel price forecasts in the plan reviews. Figure 16 summarizes the filing utilities' average historical and forecasted fuel prices. Quanta Technology chose to extrapolate the average fuel forecasts shown in the TYSPs for use in the CWP study.

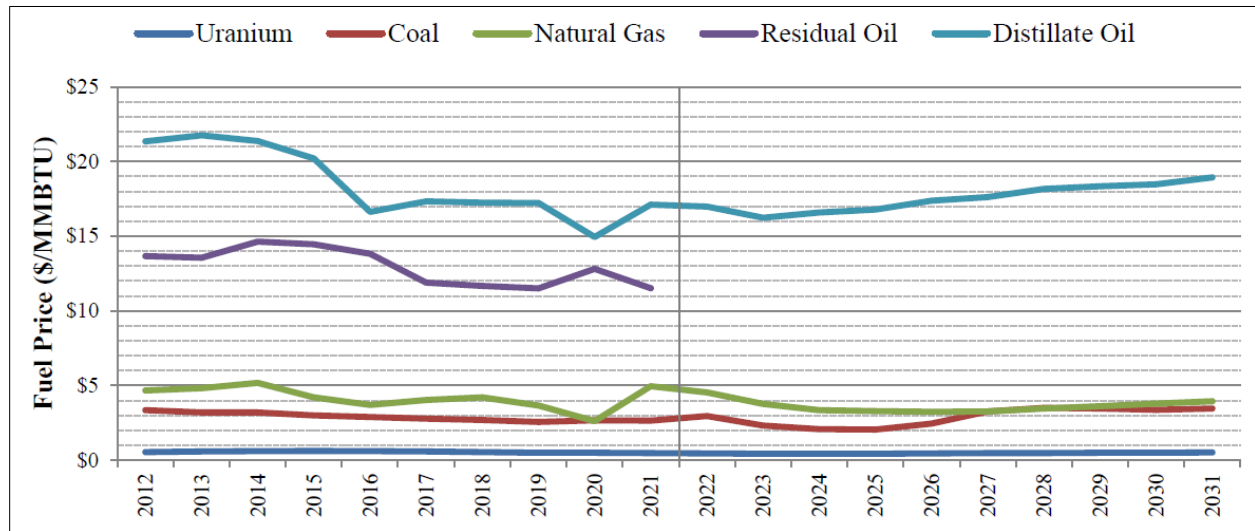


Figure 16. TYSP Utilities: Average Fuel Price of Reporting Electric Utilities

However, the TYSP are filed in April of each year. The 2022 TYSP apparently used historical natural gas prices that did not reflect the full impact of the significant increase in natural gas prices in 2022, reaching the highest prices seen since 2008. Figure 17 provide the ten year history the Henry Hub Spot. Henry Hub is a location in Erath, Louisiana, that is a junction point for a number of natural gas transmission lines. The price of natural gas delivered to Henry Hub is used a pricing reference point for the fuel industry.

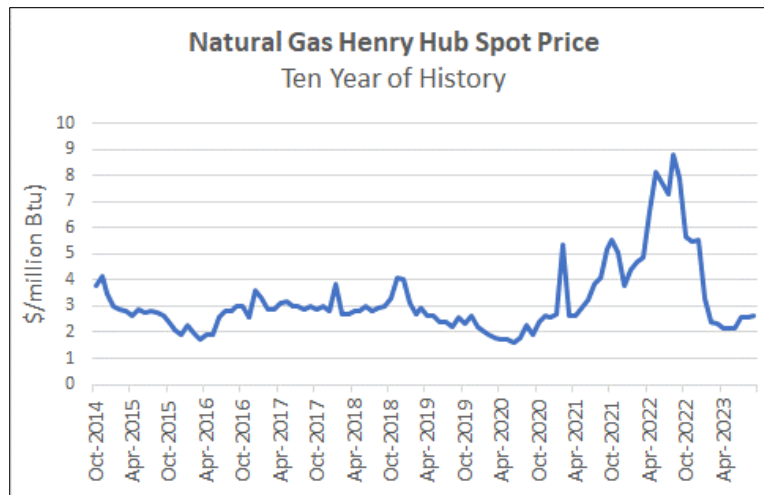


Figure 17. Ten Year History of Natural Gas Henry Hub Spot Price

Since the price spike in 2022, revised natural gas price forecasts are generally projected to return to lower prices and then begin a slow price escalation as the Energy Information Administration (EIA) natural gas price forecast shows in Figure 18. The actual prices shown in Figure 17 have actually dropped faster than the most recent EIA forecast in Figure 18.

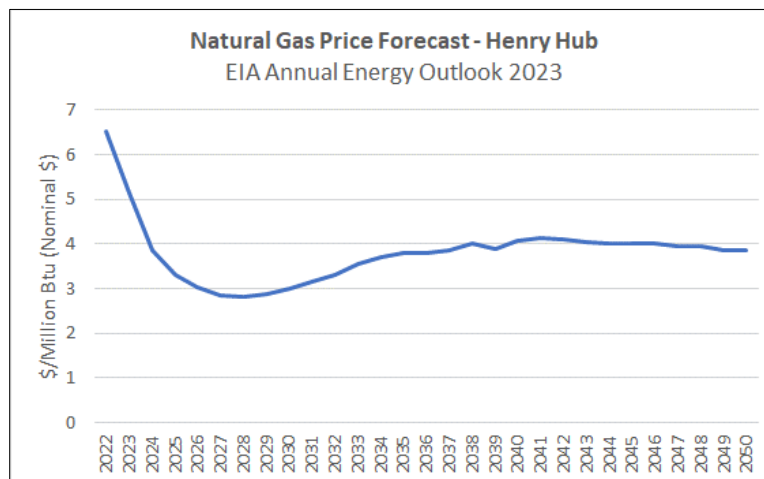


Figure 18. Natural Gas Price Forecast at Henry Hub

Quanta Technology selected three natural gas price forecasts for modeling in the different scenarios:

- **Base** – this forecast started with CWP’s most recent fuel costs in late 2022, which reflected the 2022 steep price increase in natural gas prices, and then escalated the price based on available public forecasts. Public forecasts available at the time did not reflect, the 2022 price increase, but only a slow increase in price.
- **Low** – this forecast projected an immediate drop in natural gas fuel prices to recent pre-2022 levels followed by a slow escalation in price consistent with public long term forecasts.



- **High** - this forecast started with CWP's most recent fuel costs in late 2022 and then escalated at a higher annual increase that was reflected in most public forecasts.

Recent natural gas pricing, since the IRP modeling was completed, have been more in-line with the Low natural gas forecast.

4.8 Renewable Energy Credits

One of CWP's three primary renewable targets was achieving a 100% net-zero carbon energy supply by 2050. Net zero implies that some carbon may be released into the atmosphere during electricity generation. However, any carbon released will be counterbalanced by acquiring carbon offsets, carbon credits, or RECs to offset carbon emissions from the energy supply portfolio. The ownership of RECs and carbon credits has become an accepted method to prove to regulators, constituents, or stockholders that an entity has caused the specified renewable energy production or reduction in carbon emissions. Utilities use RECs and carbon credits to prove compliance with legislated renewable portfolio standards (RPS) or the carbon content of their energy supply targets. Cities and corporations use them to demonstrate to constituents and shareholders that they have reduced their carbon footprint by X% or use Y% renewable generation to supply their operations.

Neither the state of Florida nor the Federal government has established any state mandate for carbon emission limitations or RPS for Florida's utilities. While several cities and utilities in Florida have adopted renewable or carbon emission goals, the goals are considered voluntary. The markets for RECs were originally driven by utilities and other entities with a legislative requirement to meet renewable or carbon targets. However, private corporations and cities quickly adopted the use of RECs and carbon credits, similar to CWP, to document their progress toward achieving their voluntary renewable or carbon goals.

The markets have created different types of RECs with different pricing to meet the different needs of their buyers. LevelTen Energy, a player in the REC market, offers the following concise explanation:

"RECs are priced differently depending on whether they are compliant or voluntary market RECs. Compliance market RECs are used to meet renewable portfolio standards (RPS), must meet certain criteria in the RPS statutes, and are often more expensive. Voluntary REC markets are almost exclusively driven by climate-related sustainability goals, making them more common for corporate clean energy purchasers. Since there are fewer strings attached, voluntary market RECs have lower prices. Some states have a tier system for RECs to indicate their positive environmental impact. For example, Tier 1 RECs come from new wind and solar projects. The RECs with a higher carbon-reduction impact are typically more expensive than RECs with a lower impact, like those produced in an already clean grid."¹¹

As noted above, due to the lack of need to meet different state-level requirements for RPS compliance in a specific state, voluntary RECs tend to be much less expensive than compliance RECs. In addition,

¹¹ Introduction to Renewable Energy Certificates (RECs), RTI Essentials and Best Practices, May 14, 2020, LevelTen Energy, Ben Serrurier.



voluntary market RECS are more locationally fungible in that voluntary RECs created in one state can fulfill voluntary renewable targets in any state.

With the current lack of a Florida RPS, Quanta Technology would recommend that any future REC purchases made by CWP to meet environmental targets should be made from the lowest-priced RECs available, which would be expected to be the voluntary market. Quanta Technology has reviewed various voluntary market historical and current pricing to define a REC pricing projection for this study. The forecast of the voluntary REC pricing for this study was based on forecasts of solar and wind RECs at a national level for the years 2023–2042. Linear regression was then used to extrapolate this data for an additional eight years to 2050. Figure 19 illustrates the input forecast and the extrapolated REC prices. The average price was used as the expected REC price for this study¹².

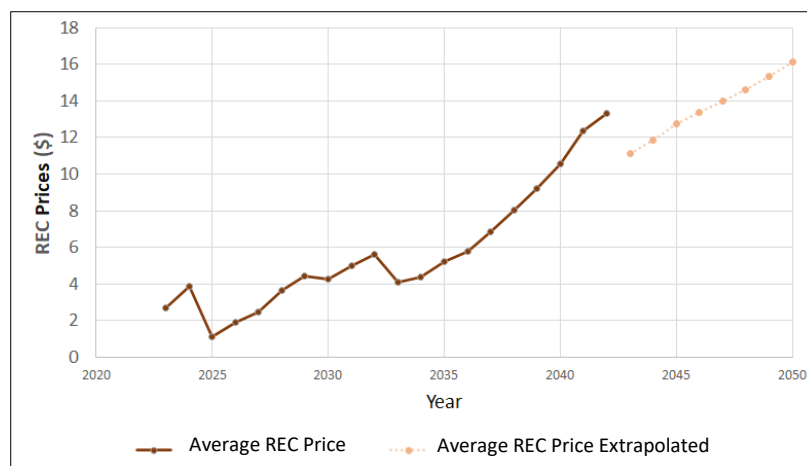


Figure 19. REC Price Forecast

4.9 Financial Assumptions

The primary financial metric to assess optional portfolios of future supply resource options for CWP was the net present value of revenue requirements (PVRR). PVRR is a metric commonly used for public and investor-owned utility decision-making and other industries for analysis that includes multiple years and/or long-lived assets. PVRR is a discounted cash flow analysis that assesses the forecasted cash outlay for capital expenditures, operations, and expenses for each year of the study. For this study, the period of the analysis was 2025–2050. The forecasted annual cash requirements are then discounted based on the cost of capital of CWP. Each year's resulting discounted cash requirements are then summed to arrive at a single value representing the PVRR. This methodology allows different optional supply portfolios to be compared with a single financial metric.

Several financial assumptions are required to perform long-term resource plans and to calculate the PVRR. To assess the possible project financing options available to CWP, Quanta Technology estimated the potential cost of new supply resources being developed and owned by third-party developers and the costs should CWP choose to own new supply resources. The developer's cost of capital determines the cost of new resources for which CWP would contract through a purchase power agreement (PPA). The CWP cost of capital, which represents an estimate of the CWP interest for their future general obligation

¹² REC pricing data compiled from multiple sources.



bonds, is used for estimating the annual costs of CWP ownership of new supply resources and the present value discount factor used for all scenarios.

Table 7. Primary Financial Assumptions

Item	Value
CWP Cost of Capital	3.5%
Developer Cost: Cost of Debt	6.0%
Developer Cost: Cost of Equity	10.0%
Developer Cost: Percentage Debt	50.0%
Developer Cost: Percentage Equity	50.0%
Developer Cost: Cost of Capital	8.0%
Annual Escalation for Capital and O&M Costs	2.0%
Annual Escalation of Purchased Power	2.0%



5 SCENARIO DESCRIPTIONS

5.1 Targets and Scenarios

As noted in early sections, this study was centered around the assessment of three potential targets under consideration for the future CWP energy supply:

- **Target 1:** 100% renewable energy supply by 2050
- **Target 2:** 100% net-zero carbon energy supply by 2050
- **Target 3:** 80% renewable energy supply by 2035 and then 100% by 2050
- **Target 4:** 80% renewable energy supply by 2035, 100% by 2050, with added capacity for storm resiliency

Based on the explicit language in the targets, the study required it to create a forecast and assumption for the year 2050. Since forecasting future conditions (e.g., energy consumption, costs, technology progression, legislative requirements) is such an imprecise science, planners in many industries, including utility resource planners, have adopted scenarios to address the uncertainty of forecasts.

While the scenario is a common term, a definition used in planning is useful for clarity. The following definition is used in this report and commonly understood in planning.

A scenario is a set of future conditions that collectively describe the external environment and conditions within which one is attempting to plan or make a decision. In the case of a resource plan, a scenario description includes a multi-year forecast of external drivers or assumptions important to the analysis. Examples of elements typically included in resource planning scenario descriptions are customer load forecasts, the projected cost of supply options, the forecasted growth of distributed generation installations, etc. A single planning target or input, such as achieving a 100% renewable supply by 2050, does not constitute a scenario, only a single planning input. A scenario requires many planning inputs.

Since it is so difficult to accurately predict future conditions, rather than just planning for a single set of future conditions, a single scenario, planners often create and use multiple scenarios that collectively describe a range of plausible future conditions. Evaluating how resource options perform across a range of potential future conditions enables assessing the resources' flexibility and ability to adapt to changing conditions.

Quanta Technology used this planning methodology with multiple scenarios to assess different options and combinations of resources to achieve each of the three renewable targets that CWP is considering. These three optional targets were expanded into a total of 15 different scenarios:

- Six focused on achieving Target 1 (100% renewable by 2050)
- Five focused on achieving Target 2 (100% net-zero carbon by 2050)
- Five focused on achieving Target 3 (80% renewable supply by 2035 and then 100% by 2050)



- Two focused on achieving Target 4 (80% renewable energy supply by 2035, 100% by 2050, with additional resources added for storm resiliency)

Each of these scenarios looked at different expected forecasts for the following eight categories of planning elements, which were referenced at the beginning of this section:

1. Load forecast
2. Distributed solar and storage
3. EV growth
4. Renewables and battery storage costs
5. EE and DR forecast
6. Natural gas fuel price forecast
7. REC pricing
8. Financial assumptions

Table 8 summarizes scenarios focused on Targets 1 and 2 developed to assess resource options for the first two renewable targets, 100% renewable by 2050 and net-zero carbon by 2050. Table 9 summarizes the remaining additional scenarios developed to assess resource options for the third renewable target, 80% renewables by 2035 and 100% by 2050.



Table 8. Details for Scenarios Focused on Targets 1 and 2

Scenario Count	1	2	3	4	5	6	7	8	9	10	11
Scenario Element	Target 1: 100% Renewable by 2050						Target 2: Net-Zero Carbon by 2050				
	1A	1B	1C	1D	1E	1F	2A	2B	2C	2D	2E
2050 Renewable Target	100%	100%	100%	100%	100%	100%	---	---	---	---	---
2050 Net-Zero Carbon Target	---	---	---	---	---	---	100%	100%	100%	100%	100%
Renewable Electric Supply by 2035	---	---	---	---	---	---	---	---	---	---	---
Load Forecast	Expected	High	Expected	Expected	Expected	Expected	Expected	High	Expected	Expected	Expected
Natural Gas Fuel Price Forecast	Base	Base	Base	Base	High	Low	Base	Base	Base	High	Low
Distributed Solar and Storage	Expected	High	Low	Expected	Expected	Expected	Expected	High	Low	Expected	Expected
New Solar PV on City Rooftops and Land	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
EV Growth	Expected	High	Low	Expected	Expected	Expected	Expected	High	Low	Expected	Expected
Technology Costs	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected
EE and DR Forecast	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected	Expected
REC Pricing	---	---	---	---	---	---	Expected	Low	High	Expected	Expected
Developer Cost of Capital	8.00%	8.00%	8.00%	-	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%	8.00%
CWP Cost of Capital	---	---	---	3.50%	---	---	---	---	---	---	---
Extra Capacity for Storm Resiliency	No	No	No	No	No	No	No	No	No	No	No

Load forecasts are as follows:

- **Expected:** 0.09%, based on the average of historical CWP growth
- **High:** 1.15%, based on average FMPA and FPL forecasts



Table 9. Details for Scenarios focused on Targets 3 and 4

Scenario Count	12	13	14	15	16	17	18
Scenario Element	Target 3: 80% Renewable by 2035 and 100% by 2050					Target 4: 80% by 2035, 100% by 2050, Capacity for Storm Resiliency	
	3A	3B	3C	3D	3E	4A	4B
2050 Renewable Target	100%	100%	100%	100%	100%	100%	100%
2050 Net-Zero Carbon Target	---	---	---	---	---	---	---
Renewable Electric Supply by 2035	80%	80%	80%	80%	80%	80%	80%
Load Forecast	Expected	Expected	Expected	Expected	Expected	Expected	Expected
Natural Gas Fuel Price Forecast	Base	Base	High	Low	Base	Base	Base
Distributed Solar and Storage	Expected	Expected	Expected	Expected	Expected	Expected	Expected
New Solar PV on City Rooftops and Land	Yes	Yes	Yes	Yes	No	Yes	Yes
EV Growth	Expected	Expected	Expected	Expected	Expected	Expected	Expected
Technology Costs	Expected	Expected	Expected	Expected	Expected	Expected	Expected
EE and DR Forecast	Expected	Expected	Expected	Expected	Expected	Expected	Expected
REC Pricing	---	---	---	---	---	---	---
Developer Cost of Capital	8.00%	-	8.00%	8.00%	8.00%	8.00%	8.00%
CWP Cost of Capital	---	3.50%	---	---	---	---	---
Extra Capacity for Storm Resiliency	No	No	No	No	No	Yes with Batteries	Yes, with old fossil units

16 of the 18 scenarios described above assumed that third-party developers/operators would own the utility-scale supply technologies. The power was then sold to CWP through a PPA. Scenarios 1D and 3B provide the resulting costs if CWP owns all or a portion of the new energy technologies sources acquired.

Purchasing utility-scale solar PV and battery storage from a developer is expected to be higher than CWP owning the facilities due primarily to the cost of capital being higher for the developer. The cost of capital for CWP is the interest it must pay on its municipal bonds (assumed to be 3.5% for this study). Whereas the cost of capital for a developer must pay a typically higher interest on its debt (assumed to be 6% for this study) and pay an even higher return to its equity investors (assumed to be 10% for this study). Table 1 summarizes the assumed capital structure (percentage of debt and equity used to finance a project) for developer-owned projects and their resulting weighted average cost of capital (cost of capital) assumed for this study.

**Table 10. Developer Weighted Average Cost of Capital**

Component	Financing Structure	Cost	Weighted Contribution
Equity	50%	10%	5%
Debt	50%	6%	3%
Weighted Average Cost of Capital			8%

As discussed in Section 4.3, all but Scenarios 3E assumed that CWP would install commercial-scale solar projects on the roofs of a portion of the buildings owned by CWP and on the ground for a portion of the vacant land owned by the CWP. These projects were assumed to be developer-owned projects for which the power was sold to CWP. However, CWP could choose to invest its own capital to install these distributed assets. Table 11 below provides the cumulative capacity and costs of the solar PV facilities assumed to be constructed on CWP-owned buildings and vacant land.

Table 11. Capacity and Costs of Solar PV on CWP Owned Buildings and Vacant Land

Year	Cumulative City Rooftop PV (MW)	Cumulative City Ground Mount PV (MW)	Cumulative Total MW)	Cumulative Cost (\$M)
2035	0.98	0.98	1.96	\$3.8
2042	0.98	2.95	3.94	\$7.5
2050	0.98	2.95	3.94	\$7.5

As show in Table 5, the costs of commercial-scale solar rooftop and ground mount projects are forecasted to remain higher than the costs of utility scale projects in this study.



6 COST AND FEASIBILITY COMPARISONS

6.1 Target 1: 100% Renewable Energy Supply by 2050

The first of CWP's potential energy supply targets identified 2050 as the date for achieving a 100% renewable energy supply. Developing and constructing a utility-scale solar photovoltaic generation facility takes multiple years. Developers of these plants typically identify co-owners and those seeking a PPA to purchase power from the plant owners as early as the development cycle. Having the future energy output of the facility fully committed to either owners or buyers will lower the risks associated with the project and, in turn, the costs of financing. Based on this typical multi-year cycle for solar facility development, Quanta Technology has assumed it will take a few years for CWP to find favorable PPA contracts or ownership positions for its renewable supply. Figure 20 provides the projected renewable energy percent of the CWP requirement for Target 1 (100% renewable by 2050) and Target 2 (80% renewable by 2035). While Target 2 shows a more rapid rise in the renewable energy contribution, both show a slower growth in the study's early years, reflecting that it will take time for CWP to identify, negotiate, and execute favorable renewable energy supply options.

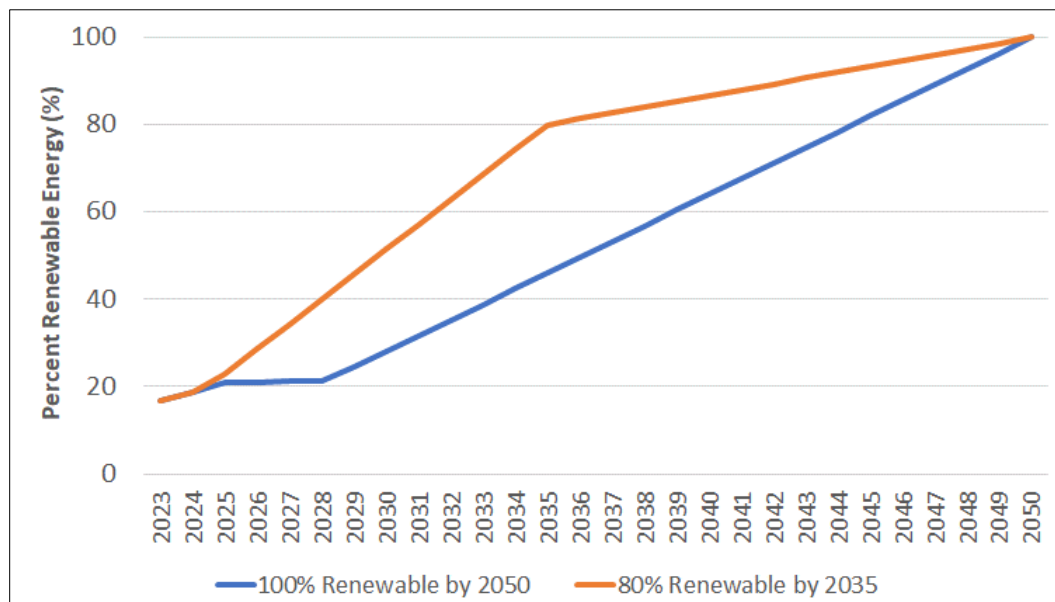


Figure 20. Comparison of Renewable Energy Results for the Two Renewable-Based Targets

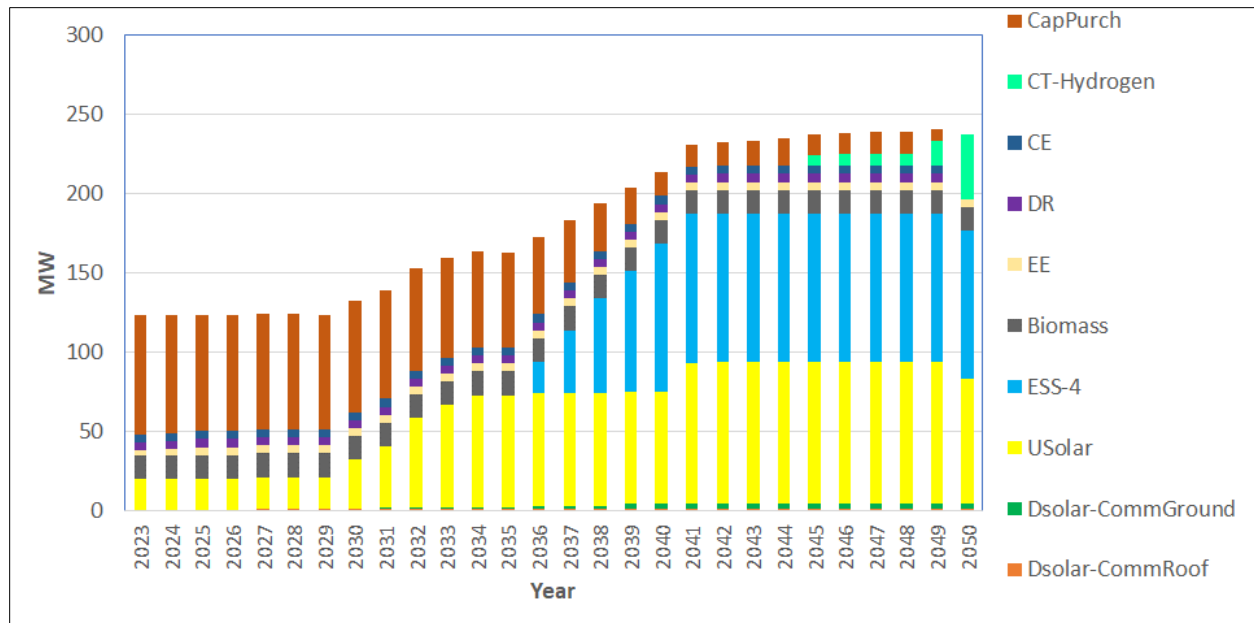


Figure 21 provides a chart showing the detailed technologies selected for the pIRP model as the least cost supply additions for Scenario 1A¹³, the first of the six scenarios defined to assess Target 1.

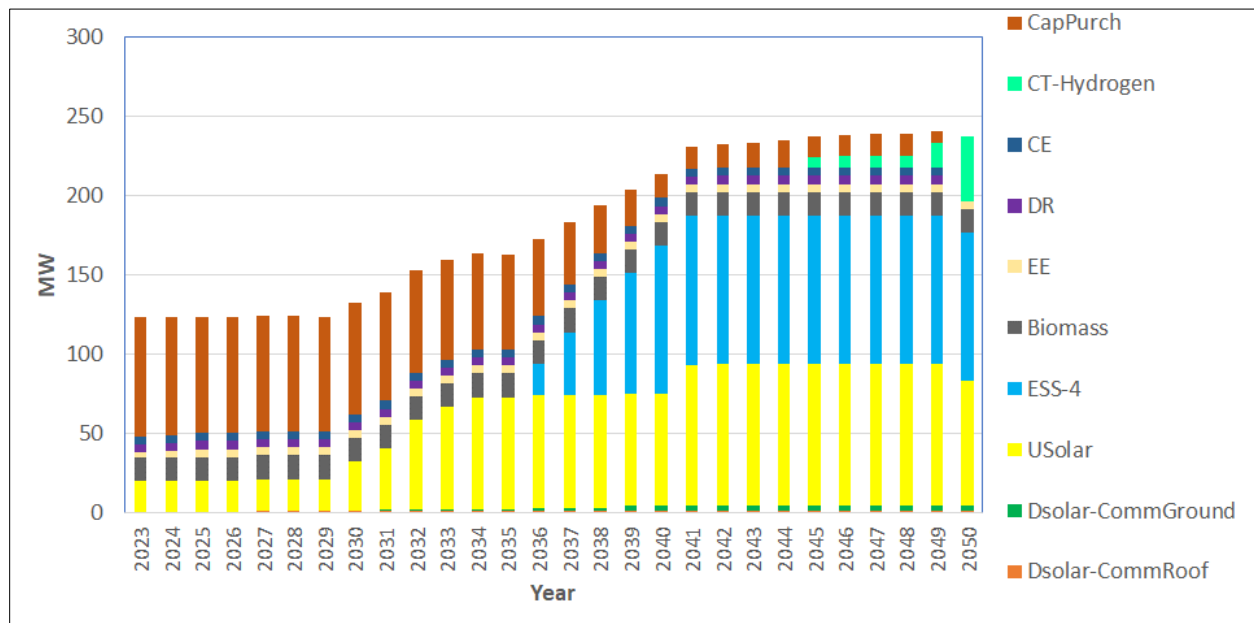


Figure 21. Capacity Additions for Scenario 1A

Solar and wind energy technologies, the two most common renewable energy sources, are considered variable renewable energy (VRE) sources since the energy production of both goes up and down based on

¹³ Technologies referenced in Figure 21 and elsewhere in the report are defined in Table 12 in Appendix B.



the amount of solar or wind energy available. Whereas fossil resources, such as natural gas-fueled CTs or combined cycle plants, are described as dispatchable energy sources that can change the output of the energy produced based on the changing requirements of the system.

A system cannot operate with 100% VRE technologies. It must have other dispatchable technologies that can adjust to supply power as needed in response to the up and down production of VREs and the changes to customer demands. In this analysis performed for CWP, the dispatchable technologies selected by the pIRP model included biomass-fueled plants, batteries, CT-Hydrogen, nuclear, concentrated solar power, and geothermal, which were all even more expensive than CT-Hydrogen plants (see Section 4.5). While biomass is assumed to be a less expensive dispatchable resource than CT-Hydrogen in this study, Quanta Technology has limited the amount of biomass generation available for the pIRP to choose to supply CWP energy requirements. Quanta Technology believes that limiting the biomass generation available to CWP is a prudent assumption for several reasons, but primarily by the expectation that the proximity and quantity of biofuels in Florida will be limited and in high demand as all utilities seek to reduce the carbon emissions of their energy supply. Limiting the amount of biomass energy available to the pIRP model selects the next higher-cost energy resource once the biomass generation reaches its limit. A table listing the annual capacity purchases by technology for Scenario 1A can be found in Appendix F, Table 20.

Figure 22 illustrates the annual energy cost for Scenario 1A based on three different measures of energy costs. The first measure in the blue line is the actual projected cost of revenue requirements for the energy supply in nominal dollars (inflation included), divided by the total energy consumptions, shown in \$/MWh. Notice the blue line's steep growth in the cost of power beginning in 2045 and the sustained high costs in the final six years of the study (2045–2050). This rise in costs is driven by introducing an extremely high-cost renewable energy technology to meet the needs of CWP. The high-cost technology added, which drives the costs up in the final years, is combustion turbine generators (CT) fueled with green hydrogen (CT-Hydrogen). The pIRP model selected the CT-Hydrogen technology for the final years of the study. This steep cost rise as the supply portfolio approaches 100% clean energy is typical of other 100% renewable and zero-carbon studies. The energy cost of imports and exports between CWP and neighboring utilities is assumed to be \$50/MWh in 2021 and is expected to escalate at 2% annually in nominal terms.

Note that the annualized cost in the blue line and the other cost presentation are all based on nominal dollars. The two alternative cost streams discussed below, the levelized cost of energy (LCOE) and the LCOE with an escalator, are constructed using a present value discounting of the annualized costs to 2021 dollars.

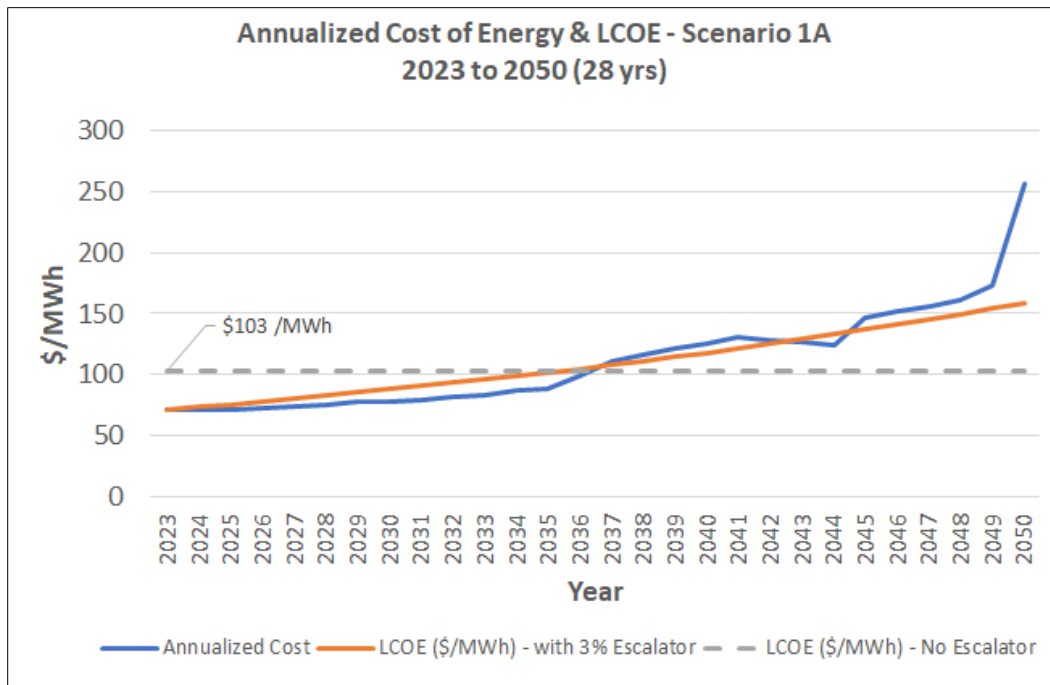


Figure 22. Annualized Cost of Energy and LCOE: Scenario 1A Based on 2023–2050

The dashed horizontal line presents the levelized cost of energy (LCOE) with no annual escalation, \$103/MWh, which is the cost of energy equivalent to the blue line’s actual energy cost if both were stated on a present value (PV) basis. Note that this report’s PV and LCOE values are based on present value discounting to 2021 dollars. The LCOE calculation takes the entire stream of forecasted actual annual costs shown in the blue line and creates an equivalent single constant \$/MWh value. The LCOE calculation flattens the year-to-year variations in actual costs and provides a single \$/MWh to represent the multi-year stream of differing values shown in the actual costs (blue line). In application, the results of the 1A would provide an LCOE that partially pays for the high costs in the final six years by increasing the costs paid in the prior years.

Finally, the orange line shows the LCOE with an annual escalation of 3%. The 3% escalation is not equivalent to inflation. However, the value Quanta Technology selected to convert the LCOE to an equivalent stream of annual costs better matches the increasing trend in production costs. The orange line is equivalent to the dashed gray and blue lines if all three were compared on a PV basis. An LCOE with an escalation is a common method that provides a lower cost than the LCOE without escalation in the early years and a higher cost later. In these 1A results, note that both LCOE methods provide higher than actual costs in the early years, but both also provide lower than the actual cost in the final years of the study, where a steep climb in forecasted actual costs is seen.

As noted earlier, forecasting future conditions becomes more complex and uncertain the further one extends the analysis into the future. Unfortunately, the final six years of the results of Scenario 1A above have a significant impact on the overall results and the LCOE values shown. Changes to the results of the last six years of the study could, in turn, significantly impact overall LCOE results.



To illustrate the impacts of the later years in the study results, Quanta Technology shortened the period of the results assessed to determine the LCOE values from the original period of 2023–2050, or a total of 28 years, to the period from 2023–2042, or a period of 20 years. The same results from the full 28-year analysis were used to perform this analysis, but only the first 20 years of the results were used to calculate the LCOE with and without escalation. The results of assessing only the first 20 years of the result of Scenario 1 are shown in Figure 23.

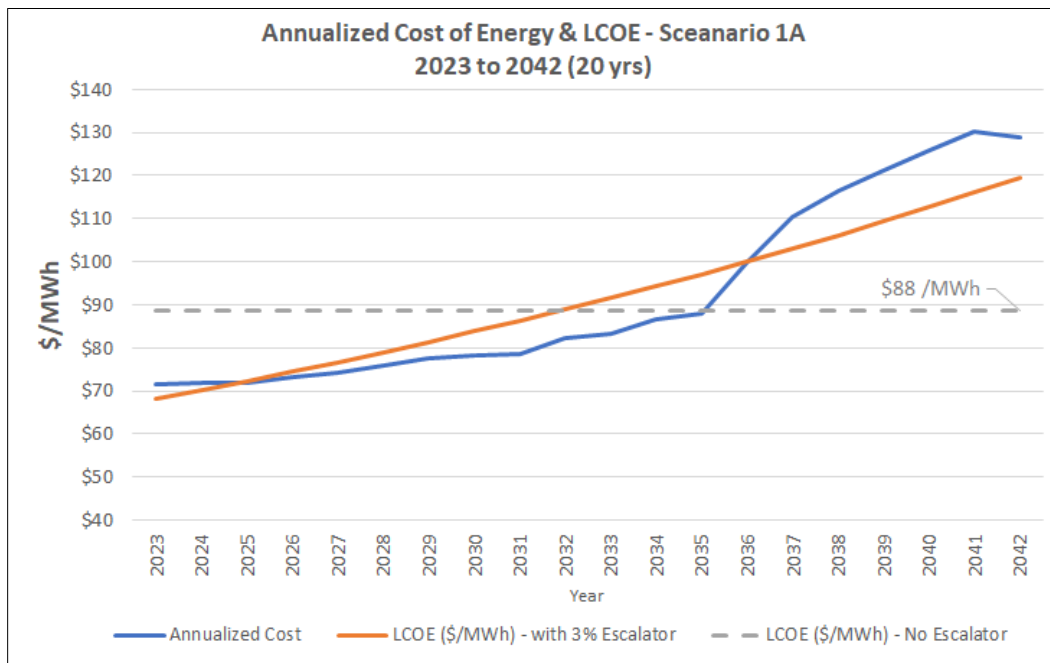


Figure 23. Annualized Cost of Energy and LCOE: Scenario 1A Based on 2023–2042

The results in the 20-year analysis of Figure 23 show an identical blue line as the first 20 years in Figure 19. However, using the shorter time horizon for the present value calculations produces significantly reduced LCOE values. The LCOE with no escalation of \$103/MWh for the 28-year analysis in Figure 19 Figure 22 drops to \$88/MWh in the 20-year analysis of Figure 23, a 15% reduction in the value. The lower LCOE in the 20-year analysis is driven by eliminating the costs in the final 8 years. Scenario 1A reaches a 71% renewable contribution to the CWP energy supply by 2042.

6.2 Target 2: 100% Net-Zero Carbon by 2050 Target

The chart shown in Figure 24 summarizes the technologies and capacities selected by the pIRP model for Scenario 2A, which focuses on achieving 100% net-zero carbon by 2050. While much of the technologies and capacities selection is similar to Scenario 1A, the notable difference is the fact that the mix of purchases continues to include significant purchases from the fossil generation in the Florida power market to the end of the study period and then includes RECs to offset the fossil generation purchases. A table listing the annual capacity purchases by technology for Scenario 2A can be found in Appendix F, Table 21.

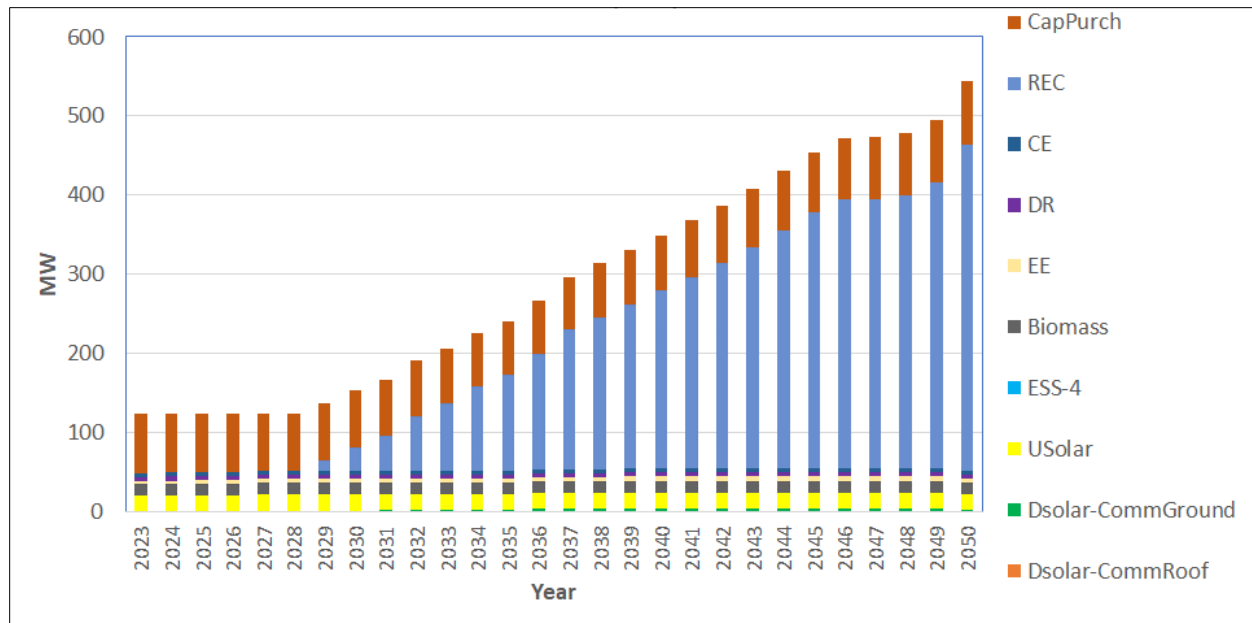


Figure 24. Capacity Additions for Scenario 2A

Figure 25 summarizes Scenario 2A's annual costs, LCOE with no escalation, and LCOE with a 3% annual escalation for the 28 years to 2050. The LCOE of this net-zero carbon scenario with no escalation, \$88/MWh, is 15% lower than Scenario 1A, \$103/MWh.

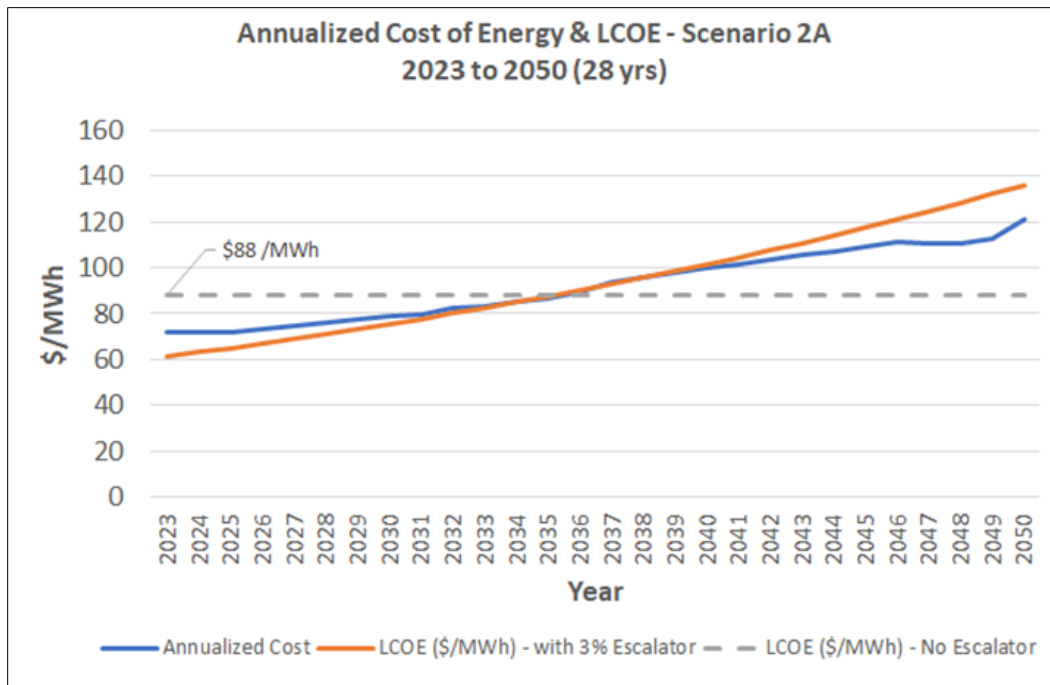


Figure 25. Annualized Cost of Energy and LCOE: Scenario 2A Based on 2023–2050

Figure 26 uses the same annual costs stream to summarize Scenario 3A annual costs, LCOE with no escalation, and LCOE with a 3% annual escalation for the 20 years to 2042.

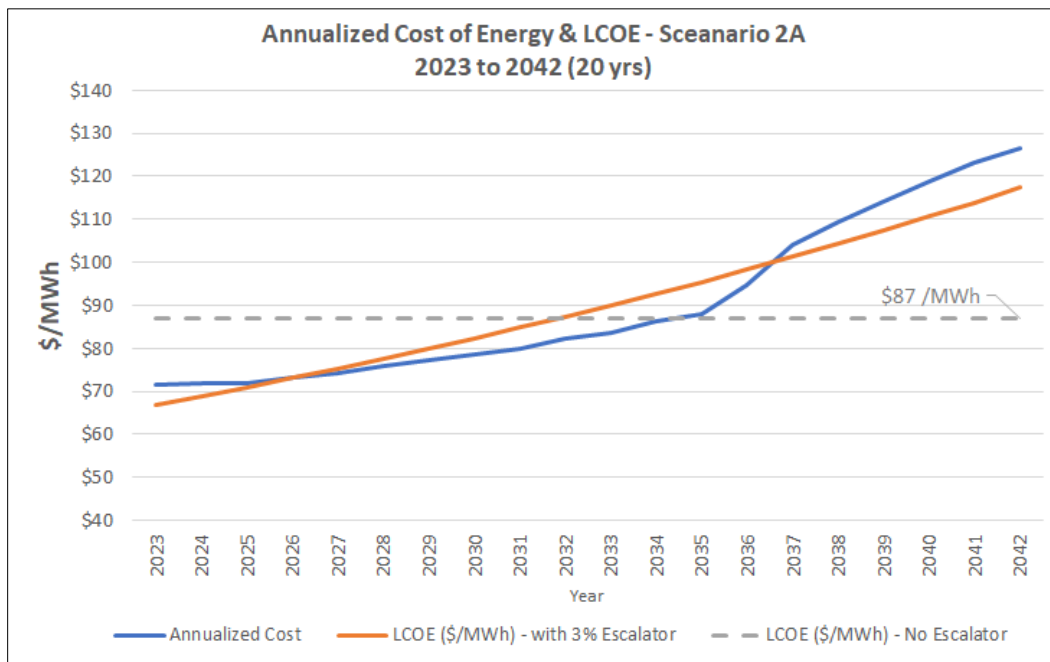


Figure 26. Annualized Cost of Energy and LCOE: Scenario 2A Based on 2023–2042



6.3 Target 3: 80% Renewable by 2035 Target

The chart shown in Figure 27 summarizes the technologies and capacities selected by the pIRP model for Scenario 3A, which focused on achieving 80% renewable by 2035 and 100% by 2050. The technologies selections are identical to Scenario 1A, except they added a more rapid pace in the first years of the analysis to reach the 80% renewable goal by 2035, versus Scenario 1, which does not reach 80% renewables until 2045, 10 years later. The notable difference is that the mix of purchases continues to include significant purchases from the fossil generation in the Florida power market to the end of the study period and then includes RECs to offset the fossil generation purchases. A table listing the annual capacity purchases by technology for Scenario 3A can be found in Appendix F, Table 22.

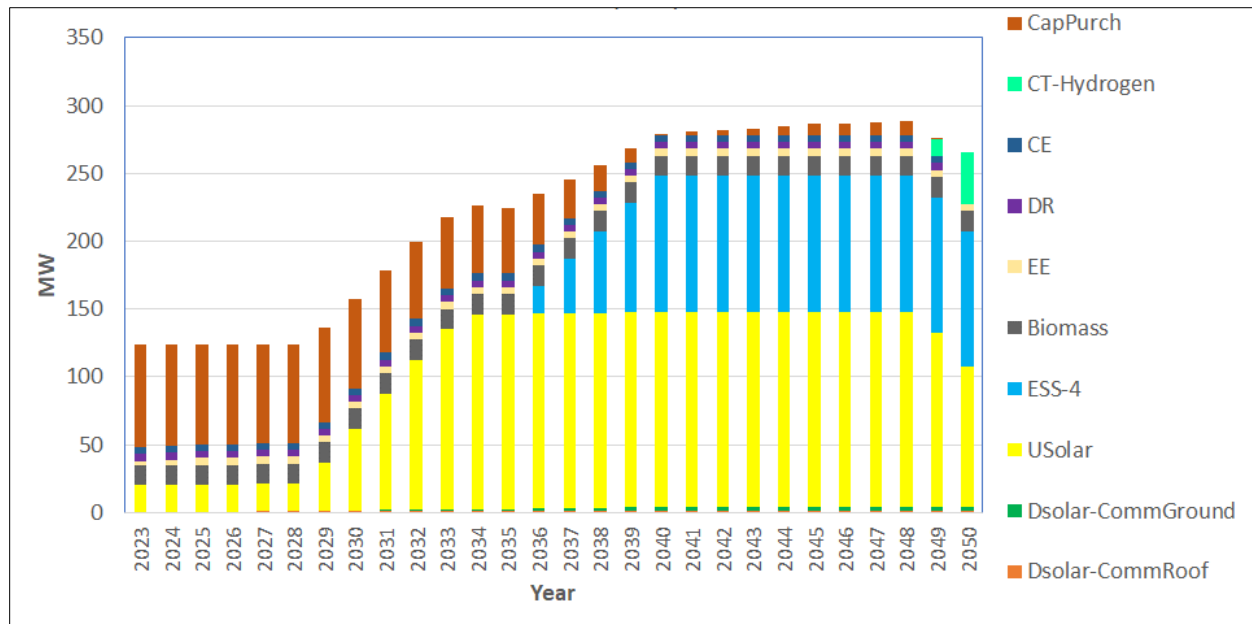


Figure 27. Capacity Additions for Scenario 3A

Figure 28 summarizes Scenario 3A's annual costs, LCOE with no escalation, and LCOE with a 3% annual escalation for the 28 years to 2050. Note that the LCOE for this scenario, \$101/MWh, is very similar to the \$103/MWh LCOE value of Scenario 1A. Figure 29 uses the same annual costs stream to summarize Scenario 3A's annual costs, LCOE with no escalation, and LCOE with a 3% annual escalation for the 20 years to 2042. The 20-year LCOE for Scenario 3A, \$90/MWh, is only \$2/MWh, or 2% over the equivalent value for Scenario 1A, \$88/MWh.

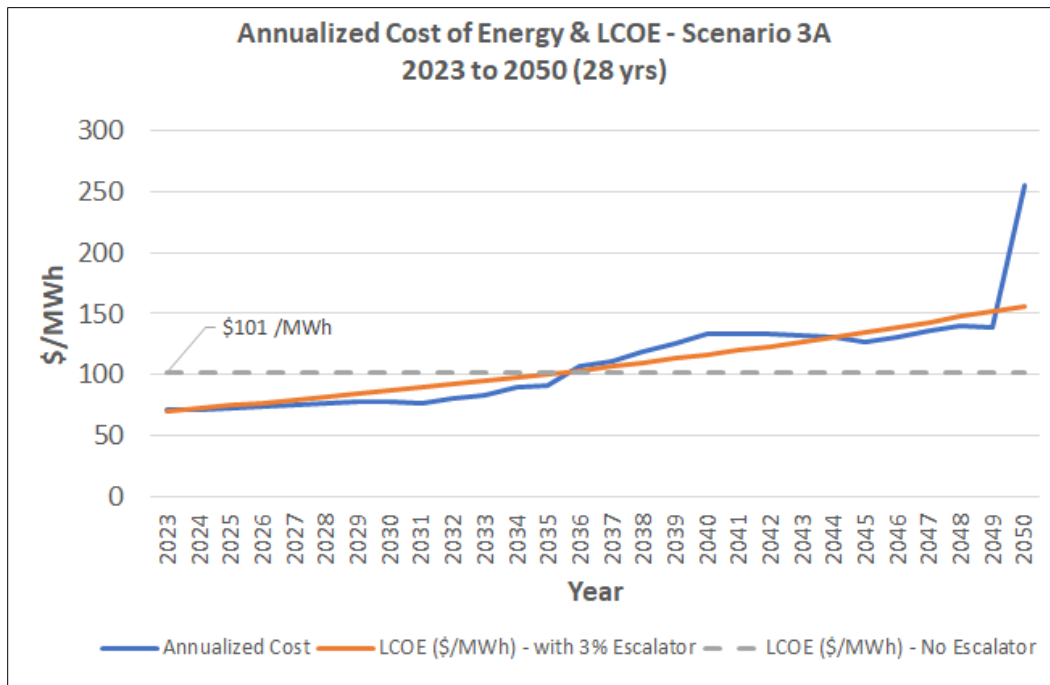


Figure 28. Annualized Cost of Energy and LCOE: Scenario 3A Based on 2023–2050

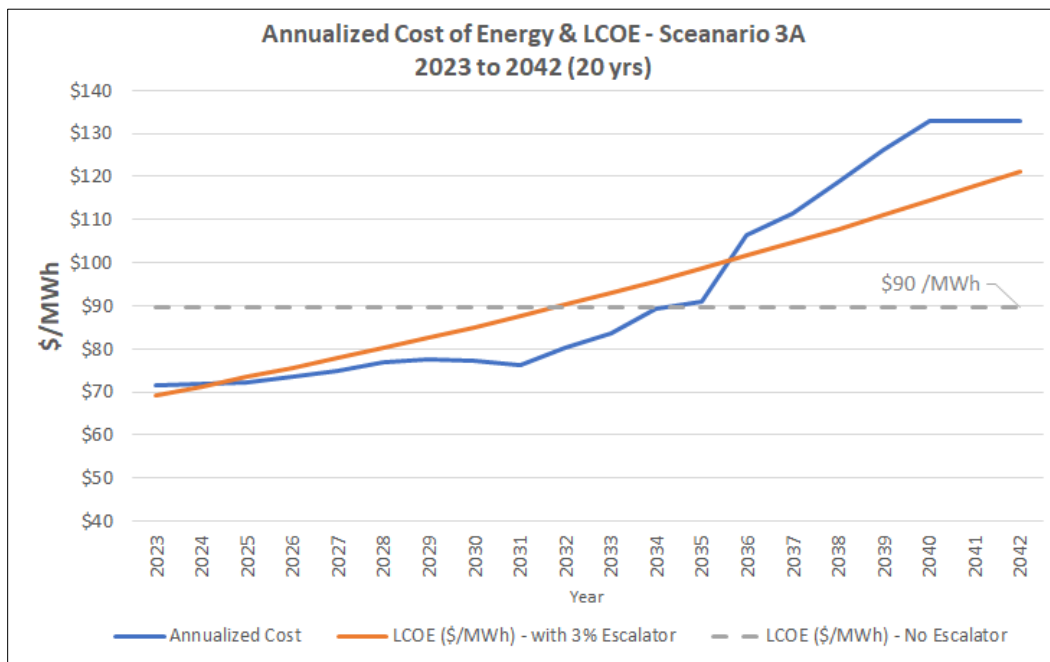


Figure 29. Annualized Cost of Energy and LCOE: Scenario 3A Based on 2023–2042

Figure 30 summarizes Scenario 3D's resulting costs for the 28 years to 2050. Scenario 3D incorporated the low fuel cost estimate, which substantially lowered the early year costs in the scenario when natural gas fueled generation dominate the supply portfolio. Figure 31 uses the same annual costs stream to



summarize Scenario 3D's annual costs, LCOE with no escalation, and LCOE with a 3% annual escalation for the 20 years to 2042.

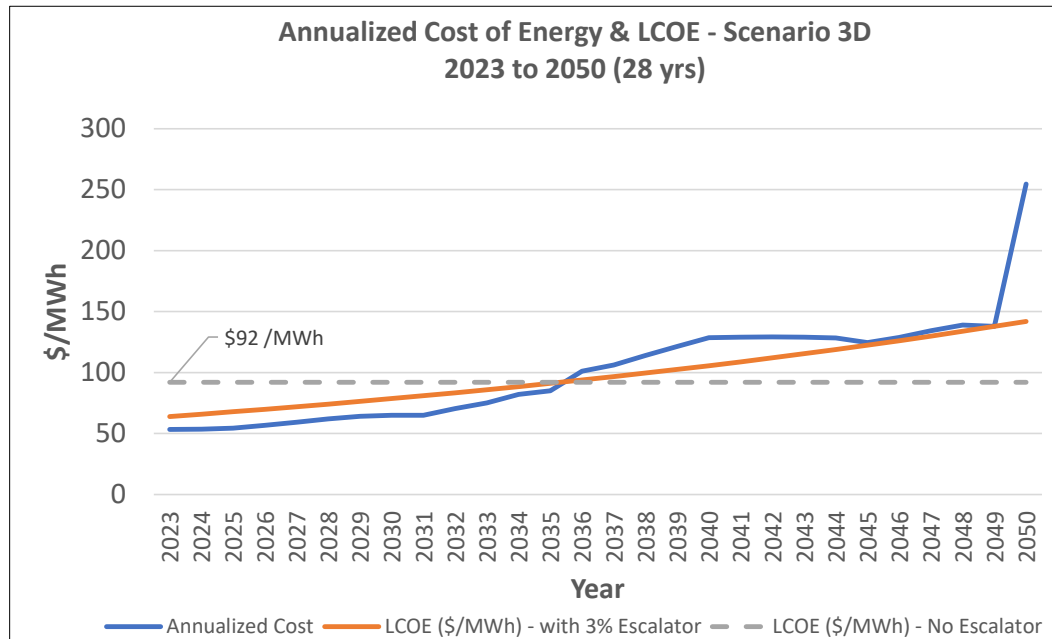


Figure 30. Annualized Cost of Energy and LCOE: Scenario 3D Based on 2023–2042

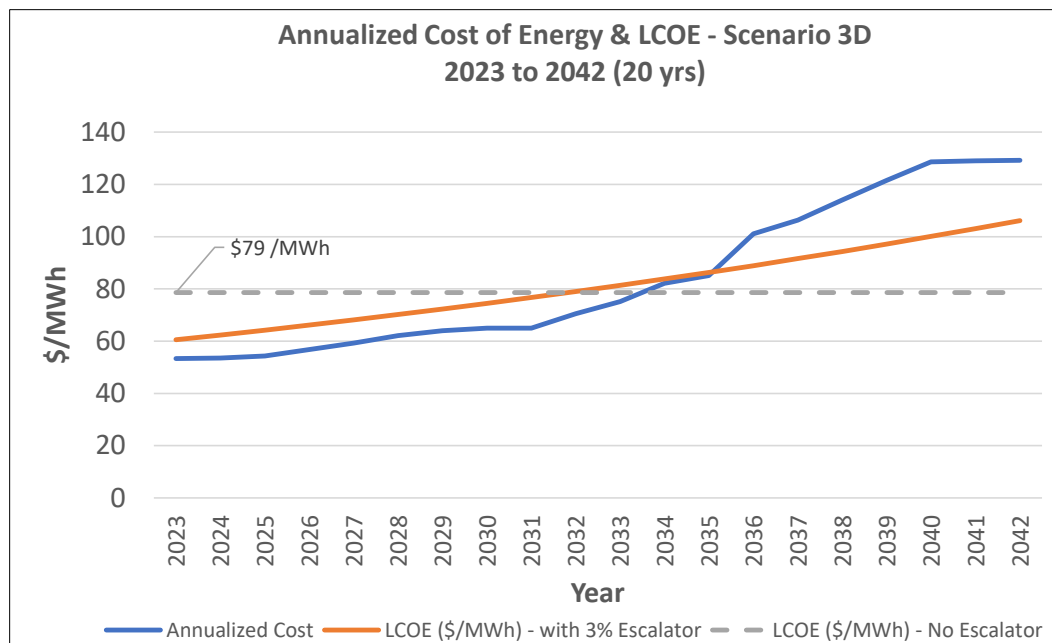


Figure 31. Annualized Cost of Energy and LCOE: Scenario 3D Based on 2023–2042



6.4 Target 4: 80% Renewable by 2035, 200% by 2050, and Storm Resiliency

Target 4 was created at the request of CWP to assess the costs of additional resources required for the portfolio defined in Scenario 3A should solar PV resources become unavailable for a multi-day period, such as during a hurricane or other severe weather event. To estimate the impacts of a severe weather event, Quanta Technology assumed that CWP would be without any solar production for a four-day period. The solar energy during this period would then need to be replaced with energy from other resources. For Scenario 4A, the solar PV production was replaced with energy from additional battery capacity acquired by CWP through PPAs. The second scenario, 4B, assumed that PPAS would supply replacement energy with older and less efficient fossil fuel units. Quanta Technology further assumed there would be multiple years with storm events requiring the replacement energy, which occurred in four years: 2023, 2035, 2042, and 2050. Since CWP is adding more solar generation to achieve progress toward its goals of 80% renewable energy by 2035 and 100% by 2050, each subsequent year requires increasing quantities of replacement energy during the storm events to replace the increasing amount of solar PV energy purchased by CWP.

The results for Scenario 4A for 28 years and 20 years are shown in Figure 32 and Figure 33. The cumulative impacts of the additional battery storage in Scenario 4A result in a higher overall LCOE than Scenario 3A (\$115/MWh for 4A vs. \$101/MWh for 3A, both for the 28-year analysis).

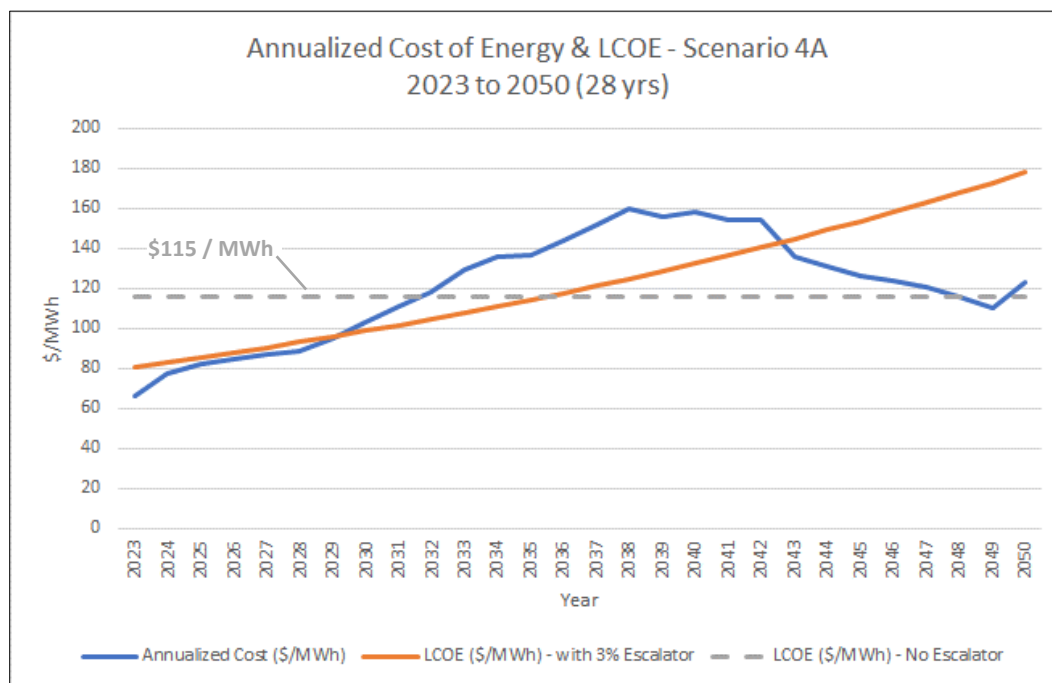


Figure 32. Annualized Cost of Energy and LCOE: Scenario 4A (Battery Capacity) Based on 2023–2050

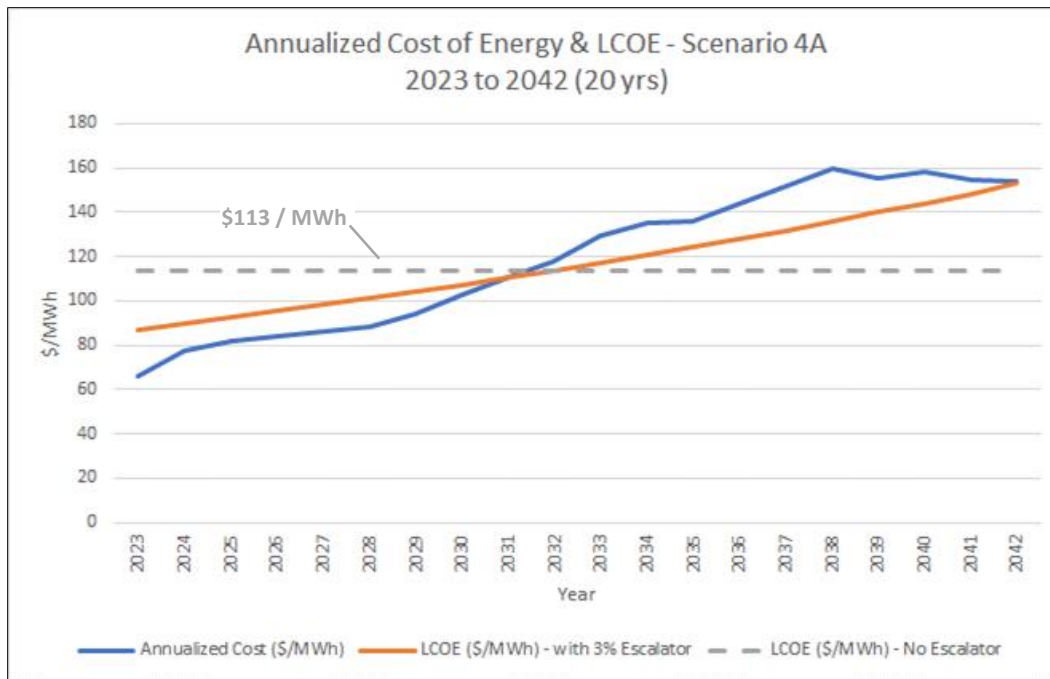


Figure 33. Annualized Cost of Energy and LCOE: Scenario 4A (Battery Capacity) Based on 2023–2042

The results for Scenario 4A for 28 years and 20 years are shown in Figure 32 and Figure 33. The 28-year LCOE results for Scenarios 4A and 4B are virtually identical (\$115.30 /MWh versus \$114.80 for 4B).

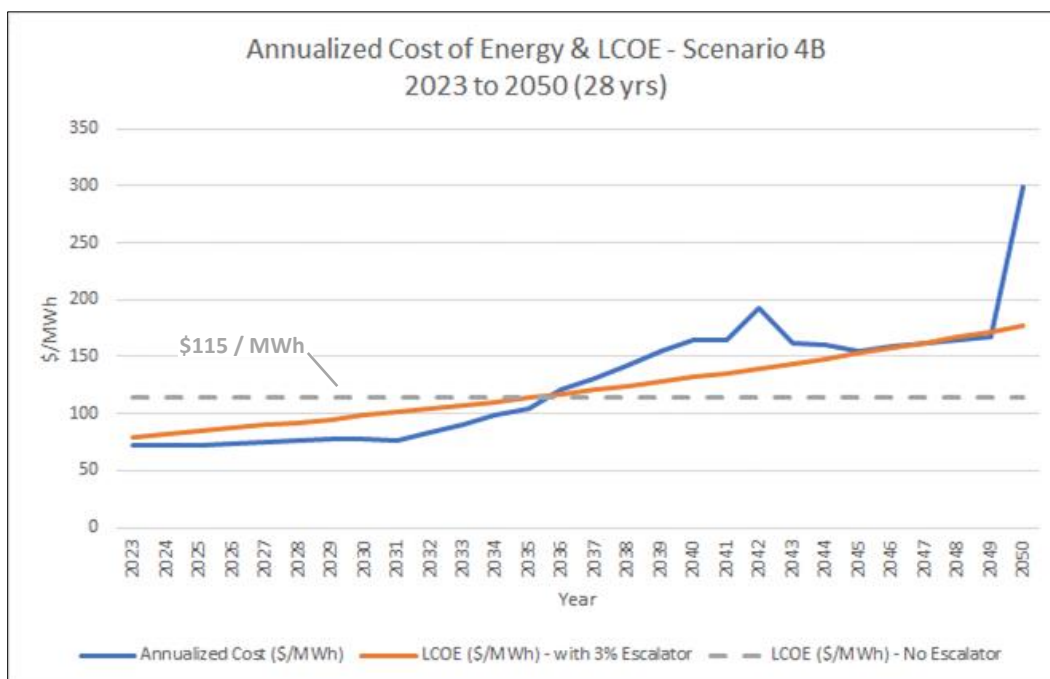


Figure 34. Annualized Cost of Energy and LCOE: Scenario 4B (Old Fossil Capacity) Based on 2023–2050



However, the 20-year LCOE results for Scenario 4B with fossil capacity used for resiliency are lower than the costs of the batteries used for resiliency in Scenario 4A (\$99/MWh for 4B versus \$113/MWh for 4A).

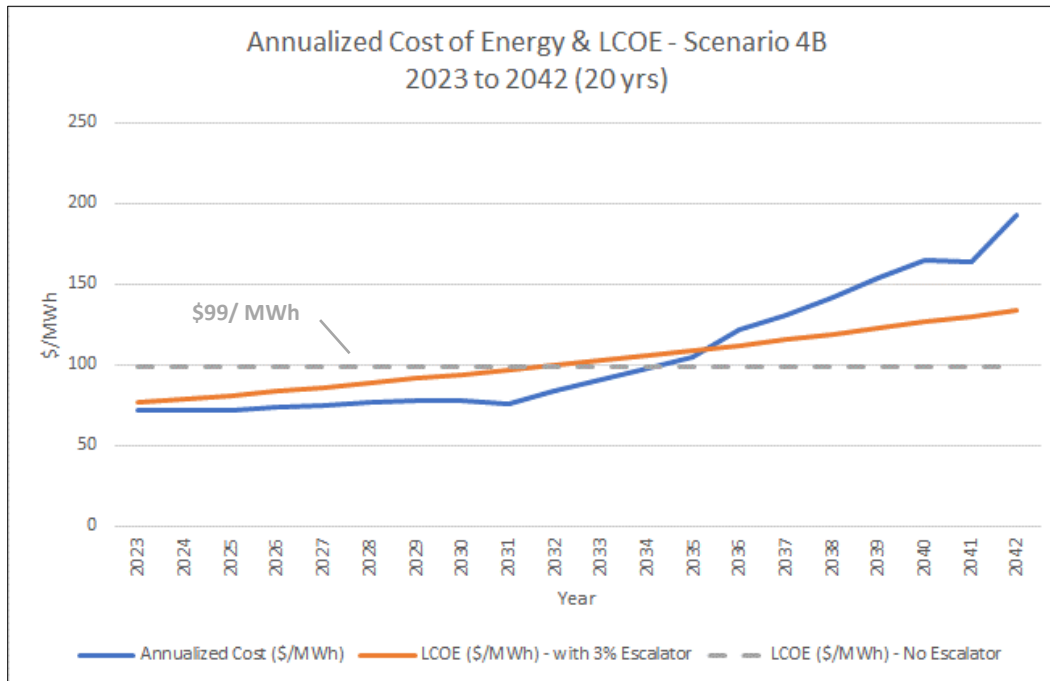


Figure 35. Annualized Cost of Energy and LCOE: Scenario 4B (Old Fossil Capacity) Based on 2023–2042

6.5 Summary of All Scenarios

Figure 36 summarizes the PVRR results for all the scenarios, the full 28-year PVRR, and the PVRR results for only the first 20 years of the analysis. The 28-year PVRR results show that the CWP projected costs, using a simple 3% escalation of the 2022 power costs are in the same range as Scenarios 1A, 2A and 3A which used similar fuels costs projections. Scenarios 1F, 2E, and 3D used a low fuel costs which is more consistent with current natural gas fuel price projections.

However, the 20-year PVRR results show a very tight range of costs. In the 20-year PVRR results, the difference between the forecast CWP costs (\$504/MWh) and the average of Scenario 1 variations (\$505/MWh) and the average of the Scenario 3 variations (\$498/MWh) is only 1%. Scenario 2 variations provide the lowest average LCOE (\$479/MWh), but the Scenario 1 variation average is still only 5% lower than the current CWP costs and the Scenario 1 variation.

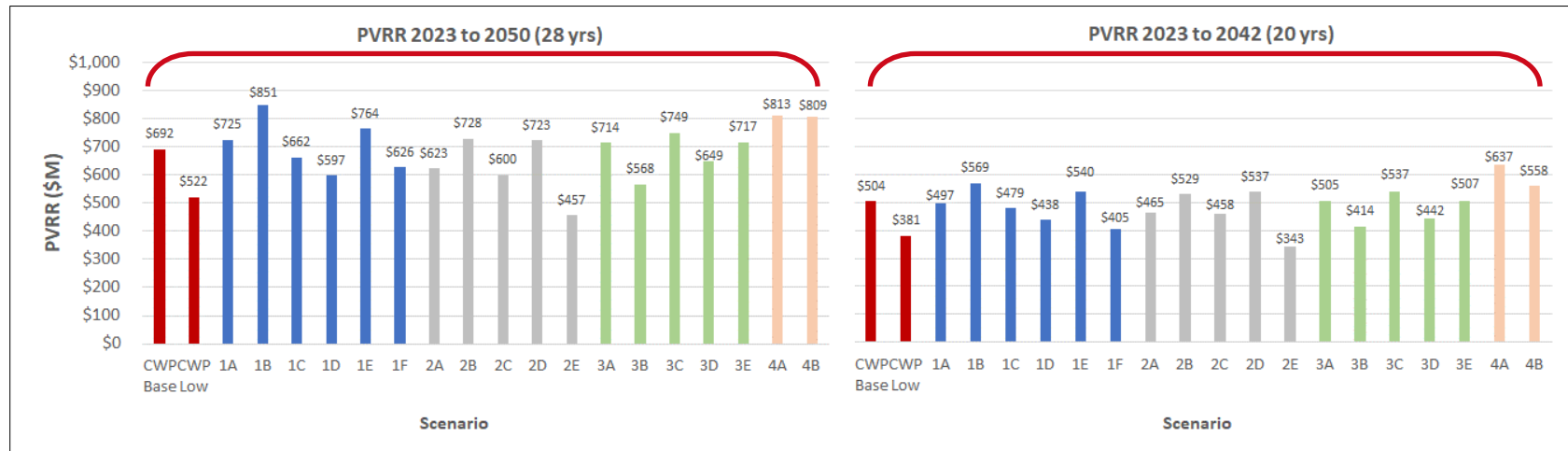


Figure 36. Summary of 28-Year and 20-Year PVRR Results for All Scenarios



Following the presentation of the initial draft results, CWP requested that Quanta Technology focus on the results from the Low natural gas price projections which aligns better with the long term historical costs experienced by CWP. Figure 37 provides a graphical comparison of the results of Scenario 3D power costs, which incorporates a Low fuel cost projection, and the 2023 actual CWP power costs, the projected 2024 costs, then subsequent years are escalated at 3% per year. The two alternatives track very closely for the first 10 to 12 years of the analysis. After 2035, the Scenario 3D costs begin to escalate at a slightly higher rate until 2049, when the green hydrogen fueled combustion turbines are added.

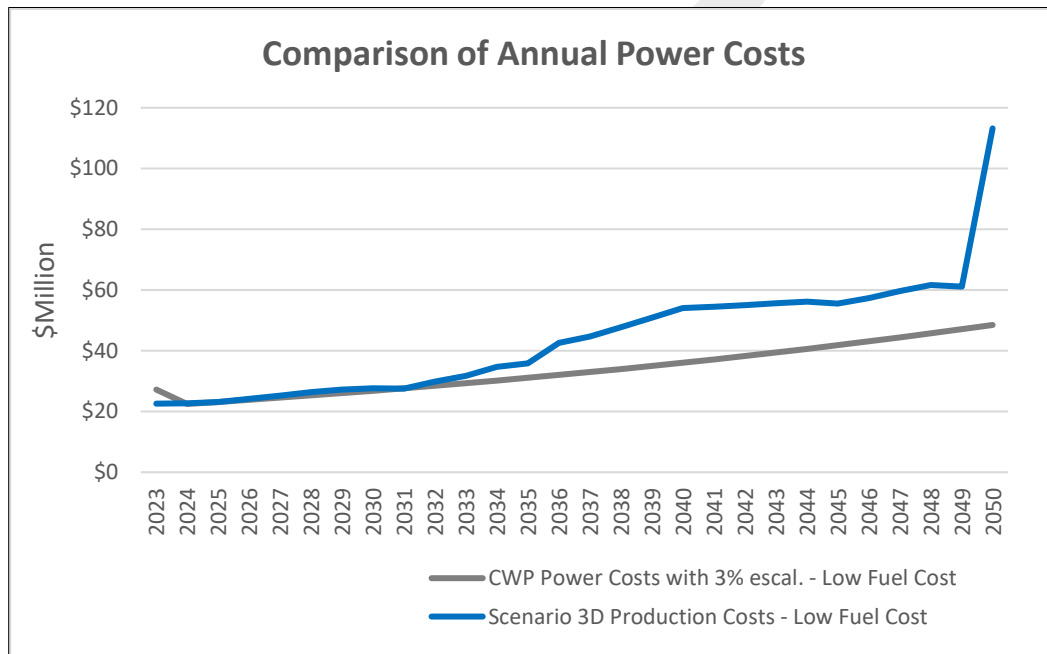


Figure 37. Comparison of Annual Power Costs for Scenario 3D and CWP Escalated



7 CONCLUSIONS AND RECOMMENDED ROADMAP

7.1 Conclusions

During the study, CWP informed Quanta Technology that their primary interest had evolved to a focus on zero carbon resources and renewables (Targets 1 and 3) rather than the net-zero option (Target 2) that would allow the continuation of energy supply from carbon-emitting energy resources. With this refined focus by CWP, this section focuses only on the conclusions related to the scenarios for Targets 1 and 3.

While this study defined a proxy cost estimate for CWP's continuing path of purchasing from energy sources that include a substantial portion of carbon-producing technologies, Quanta Technology believes the proxy of a 3% escalation in costs maybe optimistically low. The actual costs can be expected to be higher if world issues in Ukraine and the Middle East continue to inflict uncertainty on the world fuel markets. However, assessing optimistically low projections of CWP costs for comparison with the results of this study is consistent with the intent of this study to determine the feasibility of the targets under consideration (i.e., if the costs of a renewable transition are acceptable in comparison to an optimistically low CWP costs, then they will be more favorable against higher CWP costs projections).

This analysis indicates that CWP's adoption of a path toward 100% renewables can be accomplished for a reasonable cost of power for the next 20 years. However, beyond the next 20 years (i.e., during the last 8 years analyzed in this report, 2043–2050), the technology selection and the costs remain understandably more uncertain and, based on the technologies options and costs assumed in this study, could bring a substantial increase in CWP's power costs. As noted earlier, the rapid rise in costs near the end of the study period was driven by assumptions on technology costs and availability, which drove the inclusion of green hydrogen-powered CTs in the resource mix and the associated rise in costs.

Quanta Technology believes that additional cost-effective technologies will be available well before 2043. The power industry is expending considerable time and money on identifying options that could deliver lower-priced energy sources, including offshore wind, long-term energy storage technologies, and new technologies for geothermal energy, among others. While the costs projected in the last 6 years of the study are very high, based on the current assumptions, the costs before 2043 are comparable to projected CWP costs and could be lower. CWP should not avoid adopting its renewable targets because of costs that are not expected to occur for over 20 years. CWP should regularly reevaluate its targets and plans for its electric energy supply. Should continuing on a path to 100% renewable prove too costly in future years, CWP can adjust accordingly.

7.2 Recommended Roadmap

This study provides results indicating that Targets 1 and 3 are viable technical and financial options for the next 20 years (i.e., 2023–2042). After 2043, the costs begin to increase substantially due to the recommended additions of CT-hydrogen resources, a high-cost and nascent technology. Based on these results, Quanta Technology recommends the following roadmap for CWP's future.



7.2.1 Next Three Months (May 2023–July 2023)

Within the next three months, Quanta Technology recommends that CWP focus on alignment, definition, and goal-setting/validation activities in the near term. Specifically, the following is recommended:

Table 12. Three-Month Recommendations

Actions	Projects
Define a clear target for CWP's clean energy supply	• CWP would need to coalesce around a clear target for its future clean energy supply. • Establish multiple interim targets for renewable contributions before 2050 by using the findings of this report. An illustrative example of renewable goals to achieve Targets 1 and 2 is shown in Figure 38.
Start CWP IRP program	• Assign an existing employee or hire a program manager to coordinate all aspects of reaching the goal. • Reporting templates should be developed • A timeframe for reporting to citizens should be established.

For example, some potential annual renewable targets may be considered below.

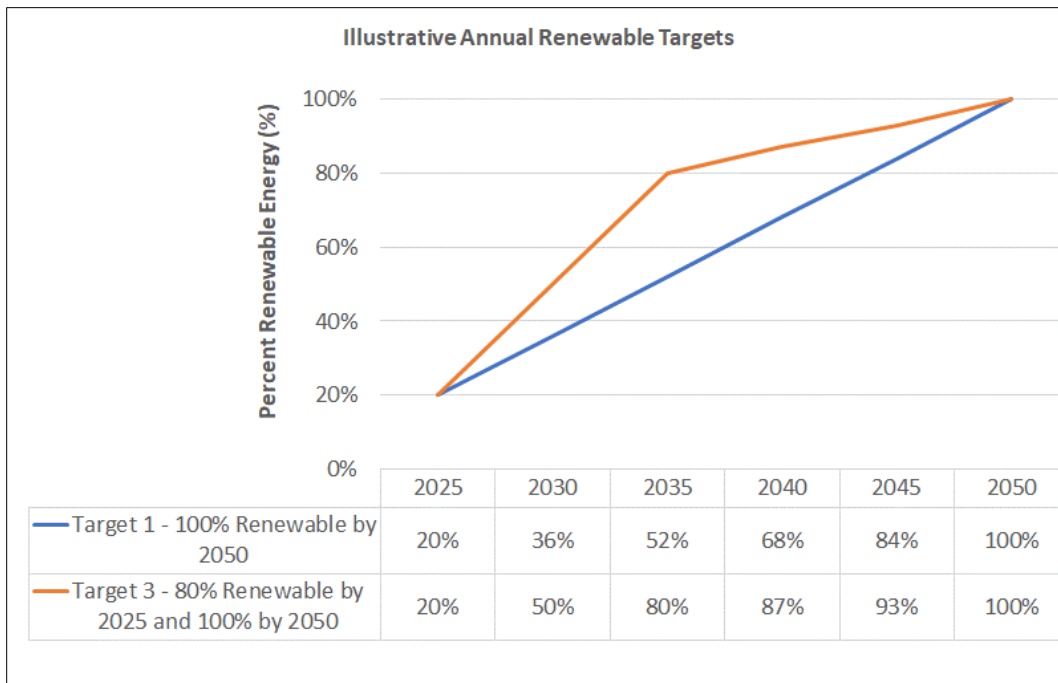


Figure 38. Illustrative Annual Renewable Targets

7.2.2 Next 18 Months (August 2023–February 2025)

Within the next 18 months, Quanta Technology recommends that CWP focus its attention on TOU, DR, and EE and prioritize utility-scale renewable purchases over rooftop solar for PV assets, as well as a number of other actions. Specifically, the following is recommended:

Table 13. 18-Month Recommendations

Actions	Projects
Develop TOU, DR, and EE programs	- Complete a load research study and consider and appliance saturation survey to gather better data to assess and design TOU, EE, and DR programs for CWP, Residential, and Business customers. - Develop forecasts of the load impacts of the future appliance and end-use electrification.



Actions	Projects
Prioritize utility-scale renewable purchases over solar PV on city rooftops	• Utility-scale solar project ownership: prioritize project and PPA negotiations to support CWP's choice of renewable target plan. • Continue to look for opportunities to pool CWP requirements and partner with FMPA and other Florida utilities for renewable and storage project power purchases and project development. • Complete a study of all CWP assets to prioritize which CWP facilities should or should not be included in future plans to add solar and storage to CWP assets. Consider an RFI for City-owned assets to understand costs and options for all possible facilities. • Complete an EV adoption study better to quantify the expected impacts of EV adoption in CWP.
Analyze warehouse rooftop PV installation	• Understand the need for individual building monitoring • Create a roadmap for monitoring and control. • Engage in discussions with vendors to develop an understanding of software in the marketplace.
Explore CWP utility bill financing	• Explore avenues in which CWP guarantees can help with financing solar of customer rooftop solar and storage additions. • Create a billing template to reflect customer savings and contribution to the goal.
Plan CWP IRP updates	• Consider assigning a project manager to provide regular updates on the program • Update the current plan to complete a revised CWP IRP after the development of EE and DR programs are developed and results from the load research study are available. • Commit to regular, periodic updates of IRP, which include a resource technology maturity assessment of new and existing technologies to provide information to adapt CWP's plan to evolving technology capabilities and costs.

7.2.3 Next 48 Months (March 2025–April 2027)

Within the next 48 months, Quanta Technology recommends that CWP focus on implementing programs (EE and TOU). Specifically, the following is recommended:



Table 14. 48-Month Recommendations

Actions	Projects
Update IRP and technology maturity assessments	• Create a roadmap for technology upgrades such as DERMs to support CWP. • Create a roadmap for the implementation of CWP-owned Battery Storage for resiliency.
Create a plan for CWP vehicle electrification	• Complete a study and plan for the electrification of all CWP-owned vehicles.
Implement rate changes	• Create and implement TOU rates with energy costs and demand rates that represent actual energy and demand costs. • Change the NEM rate credited to customers to a cost-based TOU rate that evolves as CWP TOU costs evolve. • New future NEM credit for any excess flow from the customer back to the system should reflect only the actual TOU wholesale energy value to CWP. • The value of NEM backflow power from distributed solar will ultimately go to zero and be of negative value in future years as CWP wholesale solar production exceeds noontime CWP demand, after which CWP will need to purchase energy storage to store the excess solar or interrupt the excess solar.

7.2.4 Beyond 48 Months (Beyond April 2027)

Quanta Technology recommends that CWP follow the course of action with regular project management updates on meeting the renewable targets adopted in Section 7.2.1.



APPENDIX A: TERMS AND DEFINITIONS

Table 15. Report Terms

Term	Definition
100% Renewable	All energy originates from some form of renewable technology.
Bioenergy or Biomass	- Energy technologies that use biomass as a fuel. - Biomass is a solid or gaseous renewable energy resource derived from plant- and algae-based materials that include: - Crop wastes - Forest residues - Purpose-grown grasses - Woody energy crops - Microalgae - Urban wood waste - Food waste - Even though biofuels are considered renewable, burning biofuels emit carbon and other elements. - When burned as a fuel for electric production, biofuels only release the carbon the plants take from the air and soil during their growth cycle. The process is comparable to moving carbon in and out of the atmosphere and soil but does not contribute incremental increases to the atmospheric carbon. - The biomass energy technologies considered in this study are dispatchable, and their ability to operate continuously, just like a fossil-fueled plant, is only limited by the continuity of the fuel supply to the site and onsite fuel storage.
Electrification	The process of changing appliances and end uses that use fossil fuels to electric, e.g., changing a natural gas space heater to an electric heat pump or changing a gasoline-fueled vehicle to an electric vehicle.
Energy Neutral	A CWP or customer facility that generates sufficient annual energy from their distributed energy resources to offset the annual consumption of the facility.
Green Hydrogen	- Green hydrogen is considered a green and renewable fuel source. Green hydrogen is created without emissions or the use of fossil fuels. The typical method considered the likely future source of large quantities of green hydrogen is renewable energy resources supplying power to electrolyzers that split water into pure oxygen and pure hydrogen. - Green hydrogen differs from other types of hydrogen that use different fossil-fueled processes to separate hydrogen from the fuel source.
Net Energy Metering	A rating program currently in effect in CWP where customers with distributed energy resources are credited at full retail, variable rates for any excess energy (i.e., the energy that exceeds the customer's instantaneous needs) that flows back into the CWP system.
Net-Zero Carbon	Net zero refers to a state in which the greenhouse gases going into the atmosphere are balanced by removal from the atmosphere. Generally, utilities plan to achieve net-zero carbon by reducing their carbon emissions and acquiring renewable energy credits or other carbon offsets, which counterbalance carbon removal of any remaining carbon emissions resulting from their electric energy production.
Net-Zero Energy	Sufficient energy is produced from solar PV or other renewable sources to offset the annual energy consumption.



Term	Definition
Renewable Energy	• Energy is generated only from technologies considered to be renewable, including wind, solar, ocean energy, geothermal, hydroelectricity, technologies that burn fuels derived from biomass, and green hydrogen (i.e., hydrogen generated from processes that use water and renewable energy). • Hydroelectricity is a renewable technology but is treated differently than other forms of renewable energy in some states due to its other environmental impacts.
Renewable Energy Credit	• A renewable energy credit (REC) is a market-based instrument that represents the property rights to the environmental, social, and other non-power attributes of renewable electricity generation. • RECs are issued when one megawatt-hour (MWh) of electricity is generated and delivered to the grid from a renewable energy resource. • The ownership of the REC is a certificate that can be owned, sold, or traded separately from the electrical energy that served as the source of the REC creation.
Virtual Power Plant	• Refers to a group of distributed generation or energy storage resources that can be controlled and dispatched by the utility to mimic both the electric capacity and flexibility of a typical utility generation plant or utility energy storage plant.
Zero Carbon	• All energy is created with technologies that do not emit carbon into the atmosphere. • “Real Zero” is a new term recently invented and trademarked by FPL to differentiate its emission goal from other utilities’ net-zero carbon goals. However, Real Zero is identical in definition to zero carbon. • For electric generation, zero-carbon energy resources include all forms of generation technology that do not emit carbon (e.g., nuclear and renewable technologies that do not emit carbon into the atmosphere). • Even though biofuels and geothermal are considered renewable, they are not zero-carbon resources since both generally emit carbon into the atmosphere.



APPENDIX B: LIST OF ABBREVIATIONS AND ACRONYMS

Table 16. Report Abbreviations and Acronyms

Term	Definition
ATB	NREL Annual technology baseline
Biomass	Biomass fuel generation
CAPEX	Capital expenditures
CapPurch	Capacity purchases from the Florida energy market, which is assumed to be 100% fossil generation
CE	Internal Combustion Engine fueled with diesel
CT	Combustion turbine generator
CT-Hydrogen	Green hydrogen-fueled combustion turbine
CWP	City of Winter Park
DEF	Duke Energy Florida
Dsolar-CommGround	Distributed solar PV at CWP facility open land
Dsolar-CommRoof	Distributed solar PV on CWP facility rooftops
DR	Demand response
EE	Energy efficiency
EES-4	Battery electric energy storage system with a 4-hour energy capacity
ELCC	Effective load-carrying capability
EV	Electric vehicle
FGBC	Florida Green Building Coalition
FL	Florida
FMPA	Florida Municipal Power Agency
FPL	Florida Power & Light
FY	Fiscal year
GHG	Greenhouse gas
GRU	Gainesville Regional Utilities
GW	Gigawatt
IBR	Inverter-based resources
IRP	Integrated resource plan
pIRP	Probabilistic integrated resource plan
JEA	Jacksonville Electric Authority
KW	Kilowatt
LCOE	Levelized cost of energy
LDV	Light-duty vehicle



Term	Definition
LED	Light emitting diode
LP	Linear program
MW	Megawatt
NREL	National Renewable Energy Laboratory
OUC	Orlando Utilities Commission
PPA	Power purchase agreement
PSC	Public Service Commission
PV	Photovoltaic
REC	Renewable energy credit
RPS	Renewable portfolio standards
SAP	Sustainable action plan
SFH	Single-family homes
T&D	Transmission & Distribution
TAL	Tallahassee
TECO	Tampa Electric Company
TYSP	Ten-year site plan
USolar	Utility-scale solar PV
VRE	Variable renewable energy



APPENDIX C: BATTERY LIFECYCLE CONSIDERATIONS

Two key factors dictate the life of battery-based energy storage systems:

- Capacity fading due to age
- Capacity fading due to charge-discharge cycles

Lithium-ion storage capacity typically fades or degrades with time and use, at 2%–3% per year, if used at an average rate of one full cycle per day. The storage system is designed to deliver a maximum lifetime of around 4000–6000 full cycles before the capacity fades below 70%–80% of its initial capacity. The number of cycles a battery system delivers depends strongly on the depth of discharge in each cycle. The lifecycles increase as the cycle depth of discharge decreases. In addition to lifecycles, lithium-ion batteries typically have a shelf life of around 15 years.

To maintain a battery over its life, operators usually implement an asset management plan that includes annual inspections and capacity augmentations.

However, its modules must be replaced and recycled at the end of a battery system's life. Many components of the battery systems will remain functional, including the housing/containers, electrical balance of the plant, and interconnections. The bi-directional inverters are also replaced every 10–15 years.

The chemistry of lithium-ion batteries differs between technologies and manufacturers. Some use toxic compounds and rare metals (such as cobalt or cadmium), while others use safer, non-toxic, and relatively common materials (such as manganese oxide or phosphate). Unlike lead-acid batteries that recycle 100% of the lead used in their ecosystem, the state of recycling lithium-ion batteries is still evolving. Recycling uses complex and energy-demanding processes that include pyrometallurgy and hydrometallurgy. In pyrometallurgy, battery components are smelted in a high-temperature process that burns and separates a mixed metal alloy of cobalt, copper, iron, and nickel. Hydrometallurgy recovers the desired metals by treating the cathode material with an acidic or basic solution. Multiple companies throughout North America are already in the business of reusing or recycling batteries, and many of these have partnered with car companies to aid in the recycling of their electric vehicle batteries. Most companies specializing in this process claim to recover up to 95% of the raw materials, including cobalt, nickel, and lithium. Tesla also recycles batteries independently, claiming to recover 92% of the battery's raw materials.

From a financial point of view, the cost of recycling after 15 years is not certain. Assuming a value of at least \$50/kWh in today's dollars is prudent.



APPENDIX D: NREL PVWATTS SOLAR PRODUCTION ESTIMATE

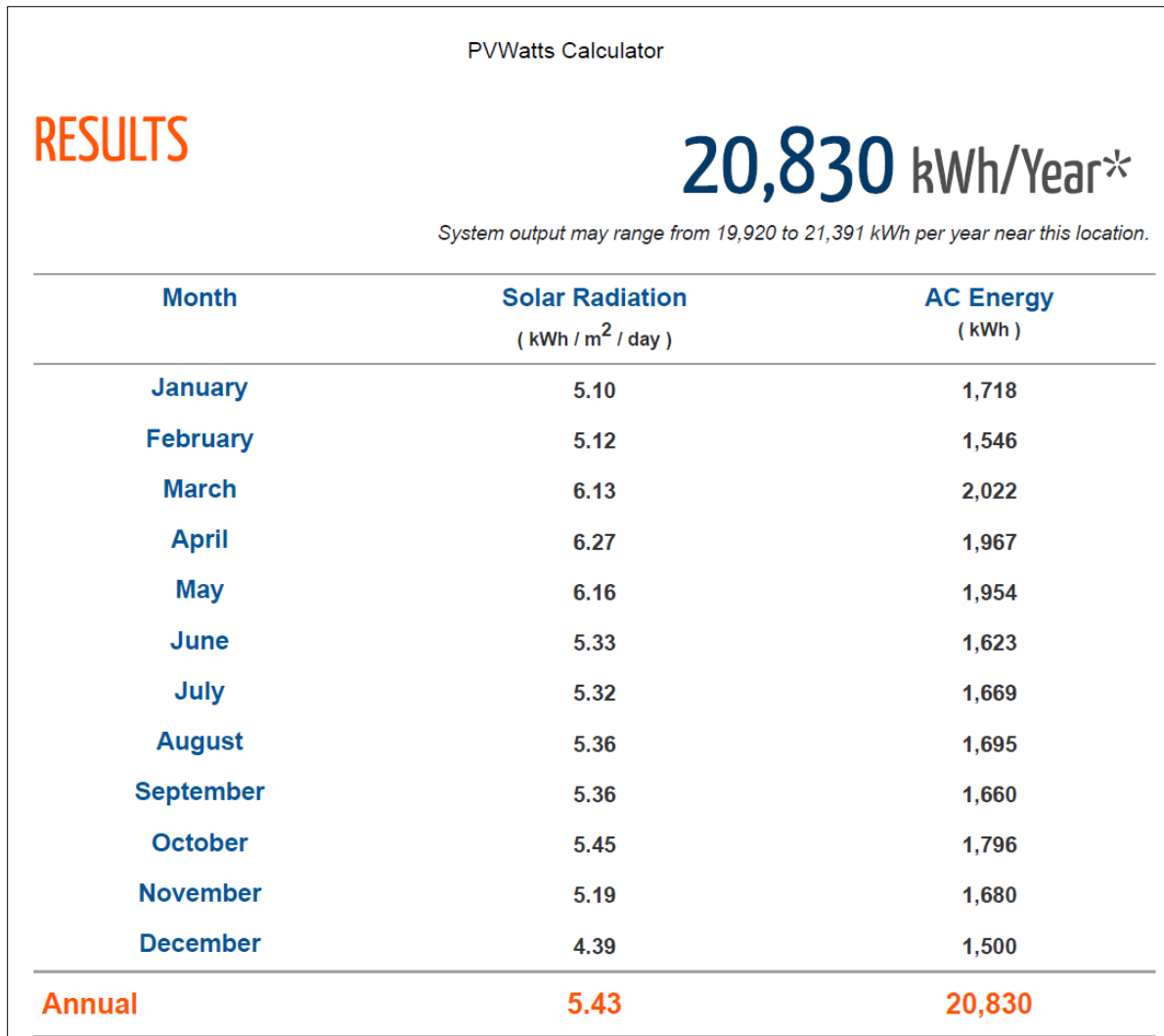


Figure 39. PVWatts Calculator



Location and Station Identification

Requested Location	401 S Park Ave 32789
Weather Data Source	Lat, Lng: 28.61, -81.34 1.2 mi
Latitude	28.61° N
Longitude	81.34° W

PV System Specifications

DC System Size	13.8 kW											
Module Type	Standard											
Array Type	Fixed (open rack)											
System Losses	14.08%											
Array Tilt	30°											
Array Azimuth	180°											
DC to AC Size Ratio	1.2											
Inverter Efficiency	96%											
Ground Coverage Ratio	0.4%											
Albedo	From weather file											
Bifacial	No (0)											
Monthly Irradiance Loss	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%

Performance Metrics

DC Capacity Factor	17.2%
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Figure 40. PVWatts Information and Metrics



APPENDIX E: RESIDENTIAL ROOFTOP SOLAR AND BATTERY FORECASTS

Table 17. Residential Rooftop Solar PV And Battery Forecasts

Year	Expected		High		Low	
	Residential Distributed Solar (MWh)	Residential Battery (MWh) ¹⁴	Residential Distributed Solar (MWh)	Residential Battery (MWh) ¹⁵	Residential Distributed Solar (MWh)	Residential Battery (MWh) ¹⁵
2025	650	5	1,037	8	387	0
2026	1,297	7	2,069	11	772	0
2027	2,591	8	4,132	13	1,542	0
2028	3,878	10	6,186	16	2,308	0
2029	5,809	12	9,266	19	3,457	0
2030	7,730	13	12,330	21	4,601	0
2031	10,291	15	16,417	24	6,126	0
2032	12,840	17	20,483	27	7,643	0
2033	15,376	18	24,528	29	9,152	0
2034	18,550	20	29,591	32	11,041	0
2035	21,707	22	34,628	35	12,920	0
2036	25,499	23	40,676	37	15,177	0
2037	29,922	25	47,732	40	17,810	0
2038	34,973	27	55,789	43	20,816	0
2039	39,349	28	62,769	45	23,421	0
2040	43,052	30	68,678	48	25,625	0
2041	46,087	32	73,519	51	27,432	0
2042	49,107	33	78,336	54	29,229	0
2043	51,462	35	82,093	56	30,631	0
2044	53,805	37	85,830	59	32,025	0
2045	55,486	38	88,512	62	33,026	0
2046	57,159	40	91,181	64	34,022	0
2047	58,823	42	93,836	67	35,012	0
2048	59,829	43	95,440	70	35,611	0
2049	60,830	45	97,037	72	36,207	0
2050	60,526	47	96,552	75	36,026	0

¹⁴ Battery energy forecasts are based on 80% of rated battery energy capacity.



APPENDIX F: FORECAST OF ROOFTOP AND GROUND MOUNT SOLAR PV ON CWP-OWNED PROPERTY

Table 18. Forecast Of Rooftop And Ground Mount Solar PV On CWP-Owned Property

Year	Expected	
	CWP-Owned Property Rooftop PV (MWh)	CWP-Owned Property Ground Mount PV (MWh)
2025	0	0
2026	0	0
2027	1,780	0
2028	1,780	0
2029	1,780	0
2030	1,780	0
2031	1,780	1,780
2032	1,780	1,780
2033	1,780	1,780
2034	1,780	1,780
2035	1,780	1,780
2036	1,780	2,735
2037	1,780	2,735
2038	1,780	2,735
2039	1,780	3,612
2040	1,780	5,353
2041	1,780	5,353
2042	1,780	5,353
2043	1,780	5,353
2044	1,780	5,353
2045	1,780	5,353
2046	1,780	5,353
2047	1,780	5,353
2048	1,780	5,353
2049	1,780	5,353
2050	1,780	5,353



APPENDIX G: RESIDENTIAL LDV EV FORECASTS

Table 19. Residential LDV EV Forecasts

Year	Expected		High		Low	
	Resident-Owned LDV EV	Resident LDV EV Charging Energy (MWh)	Resident-Owned LDV EV	Resident LDV EV Charging Energy (MWh)	Resident-Owned LDV EV	Resident LDV EV Charging Energy (MWh)
2023	403	797	624	1,235	302	597
2024	542	1,224	840	1,898	407	918
2025	714	1,766	1,107	2,737	536	1,325
2026	942	2,483	1,460	3,849	707	1,862
2027	1,222	3,381	1,894	5,240	917	2,536
2028	1,556	4,469	2,413	6,927	1,167	3,352
2029	1,953	5,775	3,026	8,951	1,464	4,331
2030	2,417	7,327	3,747	11,356	1,813	5,495
2031	2,799	8,638	4,569	14,100	2,211	6,822
2032	3,241	10,002	5,430	16,757	3,191	9,848
2033	3,753	11,582	6,453	19,915	4,172	12,874
2034	4,346	13,411	7,670	23,669	5,152	15,900
2035	5,032	15,529	9,115	28,130	6,133	18,926
2036	5,827	17,981	10,833	33,431	7,113	21,952
2037	6,747	20,821	12,875	39,732	8,094	24,977
2038	7,812	24,109	15,301	47,221	9,074	28,003
2039	9,046	27,917	18,185	56,121	10,055	31,029
2040	10,475	32,326	21,613	66,698	11,035	34,055
2041	12,129	37,431	21,651	66,816	12,016	37,081
2042	14,044	43,342	21,689	66,934	12,996	40,107
2043	16,262	50,186	21,728	67,052	13,977	43,132
2044	18,831	58,112	21,766	67,171	14,957	46,158
2045	21,804	67,289	21,804	67,289	15,938	49,184
2046	21,843	67,408	21,843	67,408	16,918	52,210
2047	21,882	67,527	21,882	67,527	17,899	55,236
2048	21,920	67,647	21,920	67,647	18,879	58,262
2049	21,959	67,766	21,959	67,766	19,860	61,287
2050	21,998	67,886	21,998	67,886	20,840	64,313



APPENDIX H: ANNUAL SCHEDULE OF CAPACITY PURCHASES

Table 20. Scenario 1A: Annual Capacity Purchases (MW)

Year	Utility Scale Solar (Usolar)	4-hr Battery Energy Storage System (ESS-4)	Biomass	Internal Combustion Engine - Fossil (CE)	Hydrogen Fuel Combustion Turbine (CT Hydrogen)	Demand Response (DR)	Energy Efficiency (EE)	City Property Rooftop Solar (Dsolar-Comm Roof)	City Property Ground Mount Solar (Dsolar-Comm Ground)	FL System Purchase (Cap Purch)
2023	20.0	0.0	15.0	5.0	0.0	5.0	3.0	0.0	0.0	75.5
2024	20.0	0.0	15.0	5.0	0.0	5.0	4.0	0.0	0.0	74.7
2025	20.0	0.0	15.0	5.0	0.0	5.0	5.0	0.0	0.0	73.7
2026	20.0	0.0	15.0	5.0	0.0	5.0	5.0	0.0	0.0	73.4
2027	20.0	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	73.1
2028	20.0	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	72.9
2029	20.0	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	72.4
2030	30.8	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	70.3
2031	38.4	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	68.2
2032	56.1	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	64.8
2033	64.4	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	62.7
2034	70.8	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	60.7
2035	70.8	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	59.7
2036	70.8	20.0	15.0	5.0	0.0	5.0	5.0	1.0	2.0	49.1
2037	70.8	40.0	15.0	5.0	0.0	5.0	5.0	1.0	2.0	39.4
2038	70.8	60.0	15.0	5.0	0.0	5.0	5.0	1.0	2.0	30.3
2039	70.8	76.4	15.0	5.0	0.0	5.0	5.0	1.0	3.0	23.0
2040	70.8	93.7	15.0	5.0	0.0	5.0	5.0	1.0	3.0	15.4
2041	89.3	93.7	15.0	5.0	0.0	5.0	5.0	1.0	3.0	13.8
2042	89.8	93.7	15.0	5.0	0.0	5.0	5.0	1.0	3.0	15.0
2043	89.8	93.7	15.0	5.0	0.0	5.0	5.0	1.0	3.0	16.3
2044	89.8	93.7	15.0	5.0	0.0	5.0	5.0	1.0	3.0	17.8
2045	89.8	93.7	15.0	5.0	6.8	5.0	5.0	1.0	3.0	13.0
2046	89.8	93.7	15.0	5.0	7.4	5.0	5.0	1.0	3.0	13.2
2047	89.8	93.7	15.0	5.0	7.4	5.0	5.0	1.0	3.0	13.9
2048	89.8	93.7	15.0	5.0	7.4	5.0	5.0	1.0	3.0	14.5
2049	89.8	93.7	15.0	5.0	16.2	5.0	5.0	1.0	3.0	7.0
2050	78.9	93.7	15.0	0.0	41.2	0.0	5.0	1.0	3.0	0.0



Table 21. Scenario 2A: Annual Capacity Purchases (MW)

	Utility Scale Solar (Usolar)	Biomass	Internal Combustion Engine - Fossil (CE)	Renewable Energy Credits (REC)	Hydrogen Fuel Combustion Turbine (CT Hydrogen)	Demand Response (DR)	Energy Efficiency (EE)	City Property Rooftop Solar (Dsolar- Comm Roof)	City Property Ground Mount Solar (Dsolar- Comm Ground)	FL System Purchase (Cap Purch)
2023	20.0	15.0	5.0	0.0	0.0	5.0	3.0	0.0	0.0	75.5
2024	20.0	15.0	5.0	0.0	0.0	5.0	4.0	0.0	0.0	74.7
2025	20.0	15.0	5.0	0.0	0.0	5.0	5.0	0.0	0.0	73.7
2026	20.0	15.0	5.0	0.0	0.0	5.0	5.0	0.0	0.0	73.4
2027	20.0	15.0	5.0	0.0	0.0	5.0	5.0	1.0	0.0	73.1
2028	20.0	15.0	5.0	0.0	0.0	5.0	5.0	1.0	0.0	72.9
2029	20.0	15.0	5.0	14.1	0.0	5.0	5.0	1.0	0.0	72.4
2030	20.0	15.0	5.0	29.9	0.0	5.0	5.0	1.0	0.0	71.9
2031	20.0	15.0	5.0	43.7	0.0	5.0	5.0	1.0	1.0	71.0
2032	20.0	15.0	5.0	68.7	0.0	5.0	5.0	1.0	1.0	70.2
2033	20.0	15.0	5.0	84.5	0.0	5.0	5.0	1.0	1.0	69.4
2034	20.0	15.0	5.0	105.5	0.0	5.0	5.0	1.0	1.0	68.3
2035	20.0	15.0	5.0	121.4	0.0	5.0	5.0	1.0	1.0	67.3
2036	20.0	15.0	5.0	146.9	0.0	5.0	5.0	1.0	2.0	66.7
2037	20.0	15.0	5.0	176.6	0.0	5.0	5.0	1.0	2.0	67.0
2038	20.0	15.0	5.0	192.6	0.0	5.0	5.0	1.0	2.0	68.0
2039	20.0	15.0	5.0	208.3	0.0	5.0	5.0	1.0	3.0	68.8
2040	20.0	15.0	5.0	225.0	0.0	5.0	5.0	1.0	3.0	69.9
2041	20.0	15.0	5.0	242.5	0.0	5.0	5.0	1.0	3.0	71.0
2042	20.0	15.0	5.0	260.9	0.0	5.0	5.0	1.0	3.0	72.3
2043	20.0	15.0	5.0	280.4	0.0	5.0	5.0	1.0	3.0	73.6
2044	20.0	15.0	5.0	300.9	0.0	5.0	5.0	1.0	3.0	75.1
2045	20.0	15.0	5.0	323.7	0.0	5.0	5.0	1.0	3.0	76.7
2046	20.0	15.0	5.0	340.1	0.0	5.0	5.0	1.0	3.0	77.4
2047	20.0	15.0	5.0	341.0	0.0	5.0	5.0	1.0	3.0	78.1
2048	20.0	15.0	5.0	345.8	0.0	5.0	5.0	1.0	3.0	78.8
2049	20.0	15.0	5.0	361.9	0.0	5.0	5.0	1.0	3.0	79.4
2050	20.0	15.0	5.0	412.1	0.0	5.0	5.0	0.0	1.5	80.4



Table 22. Scenario 3A: Annual Capacity Purchases (MW)

Year	Utility Scale Solar (Usolar)	4-hr Battery Energy Storage System (ESS-4)	Biomass	Internal Combustion Engine - Fossil (CE)	Hydrogen Fuel Combustion Turbine (CT Hydrogen)	Demand Response (DR)	Energy Efficiency (EE)	City Property Rooftop Solar (Dsolar-Comm Roof)	City Property Ground Mount Solar (Dsolar-Comm Ground)	FL System Purchase (Cap Purch)
2023	20.0	0.0	15.0	5.0	0.0	5.0	3.0	0.0	0.0	75.5
2024	20.0	0.0	15.0	5.0	0.0	5.0	4.0	0.0	0.0	74.7
2025	20.0	0.0	15.0	5.0	0.0	5.0	5.0	0.0	0.0	73.7
2026	20.0	0.0	15.0	5.0	0.0	5.0	5.0	0.0	0.0	73.4
2027	20.0	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	73.1
2028	20.0	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	72.9
2029	35.7	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	70.0
2030	60.7	0.0	15.0	5.0	0.0	5.0	5.0	1.0	0.0	65.8
2031	85.7	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	61.1
2032	110.7	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	56.6
2033	133.0	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	52.4
2034	144.1	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	49.7
2035	144.1	0.0	15.0	5.0	0.0	5.0	5.0	1.0	1.0	48.7
2036	144.1	20.0	15.0	5.0	0.0	5.0	5.0	1.0	2.0	38.1
2037	144.1	40.0	15.0	5.0	0.0	5.0	5.0	1.0	2.0	28.4
2038	144.1	60.0	15.0	5.0	0.0	5.0	5.0	1.0	2.0	19.3
2039	144.1	80.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	10.2
2040	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	1.3
2041	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	2.4
2042	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	3.7
2043	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	5.0
2044	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	6.5
2045	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	8.1
2046	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	8.8
2047	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	9.5
2048	144.1	100.0	15.0	5.0	0.0	5.0	5.0	1.0	3.0	10.1
2049	128.5	100.0	15.0	5.0	12.9	5.0	5.0	1.0	3.0	1.2
2050	103.5	100.0	15.0	0.0	37.9	0.0	5.0	1.0	3.0	0.0

Tab#	Tab Name
1	Index
2	ProForma Rev+IRP Pwr Cost
3	ProForma Rev.+3% Escalate Pwr
4	CWP Budget vs Proforma
5	Valued Rate Scenarios
6	Revenue and Sales by Class
7	CWP Baseline 10 yr Budget
8	Other Operating Revenues
9	Investment Earnings
10	Transfers in
11	G&A Expense
12	Operating Expenses
13	Routine Capital
14	Debt
15	Operating Transfers Out
16	Other Capital Projects
17	Undergrounding
18	Rate Calculation
19	Hist. Sales By Class
20	IRP Bulk Power Details

Description	Purpose
Index sheet	Index
Proforma that includes 2023 rates escalated at % shown in row 3. This Proforma also assumes the Purchased Power (PP) costs from the Quanta Technology IRP.	Summary Proforma
Proforma that includes 2023 rates escalated at % shown in row 3. Also includes CWP 2023 purchase power costs escalated at 3% per year	Summary Proforma
Compares select line items for the CWP 10 year Budget vs the results of the two Proformas in this worksheet	Results Summary
Shows results for multiple different assumptions regarding annual rate increases	Results Summary
Calculated revenue for residential and a combined class that includes commercial, public authority and lighting.	Calculation Sheet
CWP Baseline 10 year budget project	Input Data
Calculates other operating revenues based on extending methodology used in CWP Baseline 10-year budget	Calculation Sheet
Calculates investment earnings based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Calculates transfers in based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Calculates G&A Expense based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Calculates operating expense based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Calculates routine capital based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Calculates debt balances and P&I payments for existing city bonds	Input data and calculations
Calculates operating transfers out based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Calculates other capital projects based on extending methodology used in CWP Baseline 10-year budget	Input data and calculations
Uses data contained within CWP Baseline 10-year budget	Input data
Data from Oct 2022 COS report and calculations indicating COS is approximately equal for residential and all other classes combined, i.e., support equal rates for the two class projected in the Proformas	Input data and calculations
2018 to 2022 Historical CWP sales	Support data
Power costs from Quanta Technology IRP, Scenario 3D	Input data

Annual Rate Change	2.34%	2.34%	2.34%
	FY2024	FY2025	FY2026
Electric Revenue:			
Residential	\$ 21,824,911	\$ 22,351,621	\$ 22,899,653
Commercial	\$ 24,810,069	\$ 25,408,821	\$ 26,031,812
Public Authority	\$ 2,762,302	\$ 2,828,966	\$ 2,898,328
Streetlighting	\$ 236,747	\$ 236,920	\$ 237,183
Total Electric Revenue	\$ 49,634,029	\$ 50,826,328	\$ 52,066,976
Other Operating Revenues	\$ 764,537	\$ 749,813	\$ 738,636
Investment Earnings	\$ 29,588	\$ 58,985	\$ 55,895
Transfers in	\$ 177,527	\$ 187,180	\$ 195,027
Total Inflows	\$ 50,605,681	\$ 51,822,305	\$ 53,056,533
General and Administrative	\$ 2,712,088	\$ 2,844,235	\$ 2,953,616
Operating Expenses	\$ 6,582,666	\$ 6,804,309	\$ 6,985,485
Purchase Power Expense	\$ 22,730,000	\$ 23,110,000	\$ 24,180,000
Total Operating Expense	\$ 32,024,754	\$ 32,758,545	\$ 34,119,101
Routine Capital	\$ 2,278,222	\$ 2,363,633	\$ 2,451,354
Principal Payment	\$ 3,225,000	\$ 3,340,000	\$ 3,465,000
Interest on Debt	\$ 1,483,690	\$ 1,341,553	\$ 1,215,733
Total Outflows	\$ 39,011,666	\$ 39,803,730	\$ 41,251,188
Available Funds	\$ 11,594,015	\$ 12,018,575	\$ 11,805,345
Operating Transfers Out	\$ 2,937,365	\$ 2,990,405	\$ 3,034,160
Other Capital Projects	\$ -	\$ 650,000	\$ 500,000
Undergrounding Power Lines	\$ 7,761,600	\$ 8,149,680	\$ 8,557,164
Annual Surplus/(Deficit)	895,050	228,490	(285,980)
Cumulative Reserves Balance (Working Capital)	\$ 11,718,177	\$ 11,946,667	\$ 11,660,687
Number of Days of Working Capital	134	133	125
Bonds Outstanding	\$ 40,330,000	\$ 36,865,000	\$ 33,275,000
Summary			
Annual Rate Change	2.34%	2.34%	2.34%
Total Electric Revenue	\$ 49,634,029	\$ 50,826,328	\$ 52,066,976
Purchase Power Expense	\$ 22,730,000	\$ 23,110,000	\$ 24,180,000
Reserves Surplus/(Deficit)	895,050	228,490	(285,980)
Working Capital - Cumulative Reserves Balance	\$ 11,718,177	\$ 11,946,667	\$ 11,660,687
Number of Days of Working Capital	134	133	125
Total Consumption (MWh)	424,921	425,232	425,703

Average Retail Rate (\$/kWh)	\$	0.117	\$	0.120	\$	0.122
Power Costs (\$/kWh)	\$	0.053	\$	0.054	\$	0.057

2.34% FY2027	2.34% FY2028	2.34% FY2029	2.34% FY2030	2.06% FY2031	2.06% FY2032	2.06% FY2033
\$ 23,435,779	\$ 23,996,056	\$ 24,545,697	\$ 25,123,568	\$ 25,593,204	\$ 26,076,309	\$ 26,582,055
\$ 26,641,268	\$ 27,278,178	\$ 27,902,997	\$ 28,559,908	\$ 29,093,780	\$ 29,642,962	\$ 30,217,884
\$ 2,966,184	\$ 3,037,096	\$ 3,106,662	\$ 3,179,802	\$ 3,239,242	\$ 3,300,387	\$ 3,364,397
\$ 237,189	\$ 237,310	\$ 237,199	\$ 237,235	\$ 236,787	\$ 236,383	\$ 236,099
\$ 53,280,420	\$ 54,548,641	\$ 55,792,555	\$ 57,100,513	\$ 58,163,013	\$ 59,256,040	\$ 60,400,435
\$ 730,409	\$ 724,644	\$ 720,937	\$ 718,957	\$ 718,433	\$ 695,763	\$ 701,636
\$ 52,712	\$ 33,236	\$ 15,281	\$ (1,318)	\$ (4,900)	\$ (8,590)	\$ (12,390)
\$ 202,191	\$ 209,366	\$ 216,634	\$ 224,194	\$ 232,057	\$ 240,241	\$ 248,759
\$ 54,265,732	\$ 55,515,886	\$ 56,745,407	\$ 58,042,345	\$ 59,108,603	\$ 60,183,454	\$ 61,338,439
\$ 3,051,668	\$ 3,153,326	\$ 3,258,744	\$ 3,368,085	\$ 3,481,519	\$ 3,599,226	\$ 3,721,396
\$ 7,172,332	\$ 7,359,701	\$ 7,499,027	\$ 7,494,433	\$ 7,646,146	\$ 7,854,404	\$ 8,069,455
\$ 25,210,000	\$ 26,460,000	\$ 27,260,000	\$ 27,650,000	\$ 27,610,000	\$ 29,890,000	\$ 31,820,000
\$ 35,434,001	\$ 36,973,027	\$ 38,017,771	\$ 38,512,517	\$ 38,737,665	\$ 41,343,630	\$ 43,610,851
\$ 2,541,387	\$ 2,635,696	\$ 2,699,767	\$ 2,765,760	\$ 2,833,732	\$ 2,903,744	\$ 2,975,857
\$ 3,590,000	\$ 3,680,000	\$ 3,795,000	\$ 3,860,000	\$ 3,935,000	\$ 3,690,000	\$ 3,815,000
\$ 1,098,556	\$ 991,114	\$ 879,949	\$ 761,325	\$ 636,465	\$ 514,384	\$ 394,197
\$ 42,663,944	\$ 44,279,837	\$ 45,392,486	\$ 45,899,602	\$ 46,142,862	\$ 48,451,759	\$ 50,795,904
\$ 11,601,789	\$ 11,236,049	\$ 11,352,920	\$ 12,142,743	\$ 12,965,741	\$ 11,731,695	\$ 10,542,535
\$ 3,062,826	\$ 3,116,749	\$ 3,152,033	\$ 3,187,803	\$ 3,224,097	\$ 3,260,832	\$ 3,298,143
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ 8,985,022	\$ 9,434,273	\$ 9,905,987	\$ 10,401,286	\$ -	\$ -	\$ -
(946,060)	(1,814,973)	(2,205,099)	(1,946,346)	9,241,644	7,970,863	6,744,392
\$ 10,714,627	\$ 8,899,653	\$ 6,694,554	\$ 4,748,208	\$ 13,989,852	\$ 21,960,715	\$ 28,705,107
110	88	64	45	132	194	240
\$ 29,595,000	\$ 25,800,000	\$ 21,940,000	\$ 18,005,000	\$ 14,315,000	\$ 10,500,000	\$ 6,570,000
2.34%	2.34%	2.34%	2.34%	2.06%	2.06%	2.06%
\$ 53,280,420	\$ 54,548,641	\$ 55,792,555	\$ 57,100,513	\$ 58,163,013	\$ 59,256,040	\$ 60,400,435
\$ 25,210,000	\$ 26,460,000	\$ 27,260,000	\$ 27,650,000	\$ 27,610,000	\$ 29,890,000	\$ 31,820,000
(946,060)	(1,814,973)	(2,205,099)	(1,946,346)	9,241,644	7,970,863	6,744,392
\$ 10,714,627	\$ 8,899,653	\$ 6,694,554	\$ 4,748,208	\$ 13,989,852	\$ 21,960,715	\$ 28,705,107
110	88	64	45	132	194	240
425,714	425,931	425,732	425,797	424,993	424,267	423,758

\$	0.125	\$	0.128	\$	0.131	\$	0.134	\$	0.137	\$	0.140	\$	0.143
\$	0.059	\$	0.062	\$	0.064	\$	0.065	\$	0.065	\$	0.070	\$	0.075

2.06% FY2034	2.06% FY2035	2.06% FY2036	2.06% FY2037	2.06% FY2038	2.06% FY2039	2.06% FY2040
\$ 27,072,922	\$ 27,593,365	\$ 28,104,611	\$ 28,609,616	\$ 29,112,201	\$ 29,709,449	\$ 30,412,713
\$ 30,775,890	\$ 31,367,518	\$ 31,948,691	\$ 32,522,769	\$ 33,094,097	\$ 33,773,035	\$ 34,572,489
\$ 3,426,524	\$ 3,492,395	\$ 3,557,102	\$ 3,621,018	\$ 3,684,629	\$ 3,760,220	\$ 3,849,230
\$ 235,601	\$ 235,279	\$ 234,796	\$ 234,187	\$ 233,486	\$ 233,462	\$ 234,160
\$ 61,510,937	\$ 62,688,556	\$ 63,845,201	\$ 64,987,590	\$ 66,124,413	\$ 67,476,167	\$ 69,068,592
\$ 707,685	\$ 713,915	\$ 720,333	\$ 726,943	\$ 733,751	\$ 740,764	\$ 747,987
\$ (16,305)	\$ (20,336)	\$ (24,489)	\$ (28,766)	\$ (33,172)	\$ (37,710)	\$ (42,384)
\$ 257,579	\$ 266,711	\$ 276,168	\$ 285,960	\$ 296,099	\$ 306,597	\$ 317,468
\$ 62,459,896	\$ 63,648,846	\$ 64,817,212	\$ 65,971,727	\$ 67,121,090	\$ 68,485,818	\$ 70,091,663
\$ 3,848,227	\$ 3,979,929	\$ 4,116,723	\$ 4,258,841	\$ 4,406,529	\$ 4,560,045	\$ 4,719,661
\$ 8,291,557	\$ 8,520,982	\$ 8,758,012	\$ 9,002,943	\$ 9,256,088	\$ 9,517,769	\$ 9,788,328
\$ 34,750,000	\$ 35,930,000	\$ 42,600,000	\$ 44,680,000	\$ 47,760,000	\$ 50,900,000	\$ 54,070,000
\$ 46,889,784	\$ 48,430,910	\$ 55,474,734	\$ 57,941,785	\$ 61,422,616	\$ 64,977,814	\$ 68,577,989
\$ 3,050,132	\$ 3,126,636	\$ 3,205,435	\$ 3,286,598	\$ 3,370,196	\$ 3,456,302	\$ 3,544,991
\$ 3,930,000	\$ 2,090,000	\$ 2,095,000	\$ 1,175,000	\$ 1,210,000	\$ -	\$ -
\$ 270,127	\$ 173,448	\$ 106,017	\$ 54,675	\$ 18,900	\$ -	\$ -
\$ 54,140,043	\$ 53,820,995	\$ 60,881,187	\$ 62,458,058	\$ 66,021,713	\$ 68,434,116	\$ 72,122,980
\$ 8,319,852	\$ 9,827,852	\$ 3,936,026	\$ 3,513,669	\$ 1,099,378	\$ 51,702	\$ (2,031,317)
\$ 3,335,966	\$ 3,374,308	\$ 3,413,181	\$ 3,452,594	\$ 3,492,555	\$ 3,533,077	\$ 3,574,168
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4,483,887	5,953,543	22,844	(438,925)	(2,893,178)	(3,981,375)	(6,105,486)
\$ 33,188,994	\$ 39,142,537	\$ 39,165,382	\$ 38,726,457	\$ 35,833,279	\$ 31,851,904	\$ 25,746,418
258	295	258	244	213	179	137
\$ 4,480,000	\$ 2,385,000	\$ 1,210,000	\$ -	\$ -	\$ -	\$ -
2.06%	2.06%	2.06%	2.06%	2.06%	2.06%	2.06%
\$ 61,510,937	\$ 62,688,556	\$ 63,845,201	\$ 64,987,590	\$ 66,124,413	\$ 67,476,167	\$ 69,068,592
\$ 34,750,000	\$ 35,930,000	\$ 42,600,000	\$ 44,680,000	\$ 47,760,000	\$ 50,900,000	\$ 54,070,000
4,483,887	5,953,543	22,844	(438,925)	(2,893,178)	(3,981,375)	(6,105,486)
\$ 33,188,994	\$ 39,142,537	\$ 39,165,382	\$ 38,726,457	\$ 35,833,279	\$ 31,851,904	\$ 25,746,418
258	295	258	244	213	179	137
422,864	422,286	421,420	420,325	419,068	419,025	420,278

\$	0.145	\$	0.148	\$	0.152	\$	0.155	\$	0.158	\$	0.161	\$	0.164
\$	0.082	\$	0.085	\$	0.101	\$	0.106	\$	0.114	\$	0.121	\$	0.129

2.06% FY2041	2.06% FY2042	2.06% FY2043	2.06% FY2044	2.06% FY2045	2.06% FY2046	2.06% FY2047
\$ 31,235,069	\$ 32,142,617	\$ 33,199,989	\$ 34,376,250	\$ 35,744,007	\$ 36,417,754	\$ 37,110,043
\$ 35,507,325	\$ 36,539,005	\$ 37,741,002	\$ 39,078,149	\$ 40,632,985	\$ 41,398,885	\$ 42,185,864
\$ 3,953,313	\$ 4,068,178	\$ 4,202,006	\$ 4,350,881	\$ 4,523,993	\$ 4,609,267	\$ 4,696,887
\$ 235,633	\$ 237,581	\$ 240,438	\$ 243,927	\$ 248,509	\$ 248,077	\$ 247,686
\$ 70,931,340	\$ 72,987,381	\$ 75,383,435	\$ 78,049,207	\$ 81,149,493	\$ 82,673,983	\$ 84,240,480
\$ 755,426	\$ 763,089	\$ 770,982	\$ 779,111	\$ 787,484	\$ 796,109	\$ 804,992
\$ (47,198)	\$ (52,156)	\$ (57,264)	\$ (62,524)	\$ (67,942)	\$ (73,523)	\$ (79,272)
\$ 328,724	\$ 340,379	\$ 352,448	\$ 364,944	\$ 377,884	\$ 391,282	\$ 405,155
\$ 71,968,292	\$ 74,038,693	\$ 76,449,601	\$ 79,130,738	\$ 82,246,919	\$ 83,787,850	\$ 85,371,356
\$ 4,885,666	\$ 5,058,363	\$ 5,238,073	\$ 5,425,133	\$ 5,619,903	\$ 5,822,760	\$ 6,034,103
\$ 10,068,121	\$ 10,357,522	\$ 10,656,923	\$ 10,966,735	\$ 11,287,390	\$ 11,619,342	\$ 11,963,066
\$ 54,570,000	\$ 55,090,000	\$ 55,640,000	\$ 56,220,000	\$ 55,530,000	\$ 57,320,000	\$ 59,670,000
\$ 69,523,787	\$ 70,505,885	\$ 71,534,995	\$ 72,611,868	\$ 72,437,293	\$ 74,762,102	\$ 77,667,169
\$ 3,636,341	\$ 3,730,431	\$ 3,827,344	\$ 3,927,165	\$ 4,029,980	\$ 4,135,879	\$ 4,244,955
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 73,160,128	\$ 74,236,316	\$ 75,362,339	\$ 76,539,033	\$ 76,467,273	\$ 78,897,981	\$ 81,912,124
\$ (1,191,836)	\$ (197,623)	\$ 1,087,261	\$ 2,591,705	\$ 5,779,646	\$ 4,889,870	\$ 3,459,232
\$ 3,615,840	\$ 3,658,103	\$ 3,700,969	\$ 3,744,448	\$ 3,788,553	\$ 3,833,296	\$ 3,878,688
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
(5,307,676)	(4,355,726)	(3,113,707)	(1,652,743)	1,491,093	556,574	(919,456)
\$ 20,438,743	\$ 16,083,017	\$ 12,969,309	\$ 11,316,566	\$ 12,807,659	\$ 13,364,233	\$ 12,444,777
107	83	66	57	65	65	58
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.06%	2.06%	2.06%	2.06%	2.06%	2.06%	2.06%
\$ 70,931,340	\$ 72,987,381	\$ 75,383,435	\$ 78,049,207	\$ 81,149,493	\$ 82,673,983	\$ 84,240,480
\$ 54,570,000	\$ 55,090,000	\$ 55,640,000	\$ 56,220,000	\$ 55,530,000	\$ 57,320,000	\$ 59,670,000
(5,307,676)	(4,355,726)	(3,113,707)	(1,652,743)	1,491,093	556,574	(919,456)
\$ 20,438,743	\$ 16,083,017	\$ 12,969,309	\$ 11,316,566	\$ 12,807,659	\$ 13,364,233	\$ 12,444,777
107	83	66	57	65	65	58
422,922	426,417	431,547	437,809	446,031	445,257	444,555

\$	0.168	\$	0.171	\$	0.175	\$	0.178	\$	0.182	\$	0.186	\$	0.189
\$	0.129	\$	0.129	\$	0.129	\$	0.128	\$	0.124	\$	0.129	\$	0.134

2.06% FY2048	2.06% FY2049	2.06% FY2050
\$ 37,833,202	\$ 38,570,893	\$ 39,438,796
\$ 43,007,935	\$ 43,846,526	\$ 44,833,138
\$ 4,788,415	\$ 4,881,782	\$ 2,881,066
\$ 247,411	\$ 247,139	\$ 247,595
\$ 85,876,964	\$ 87,546,340	\$ 87,400,595
\$ 814,142	\$ 823,566	\$ 833,273
\$ (85,192)	\$ (91,291)	\$ (97,572)
\$ 419,521	\$ 434,395	\$ 449,797
\$ 87,025,434	\$ 88,713,011	\$ 88,586,094
\$ 6,254,356	\$ 6,483,965	\$ 6,724,360
\$ 12,319,061	\$ 12,687,855	\$ 13,069,998
\$ 61,670,000	\$ 61,140,000	\$ 113,200,000
\$ 80,243,417	\$ 80,311,820	\$ 132,994,358
\$ 4,357,304	\$ 4,473,023	\$ 4,592,214
\$ -	\$ -	\$ -
\$ -	\$ -	\$ -
\$ 84,600,721	\$ 84,784,843	\$ 137,586,572
\$ 2,424,713	\$ 3,928,168	\$ (49,000,478)
\$ 3,924,743	\$ 3,971,472	\$ 4,018,890
\$ 500,000	\$ 500,000	\$ 500,000
\$ -	\$ -	\$ -
(2,000,030)	(543,304)	(53,519,368)
\$ 10,444,746	\$ 9,901,442	\$ (43,617,926)
48	45	(120)
\$ -	\$ -	\$ -

2.06%	2.06%	2.06%
\$ 85,876,964	\$ 87,546,340	\$ 87,400,595
\$ 61,670,000	\$ 61,140,000	\$ 113,200,000
(2,000,030)	(543,304)	(53,519,368)
\$ 10,444,746	\$ 9,901,442	\$ (43,617,926)
48	45	(120)
444,061	443,573	444,391

\$	0.193	\$	0.197	\$	0.197
\$	0.139	\$	0.138	\$	0.255

Comments

from Revenue and Sales by Class tab
from Revenue and Sales by Class tab
from Revenue and Sales by Class tab
from Revenue and Sales by Class tab

from Other Operating Revenues tab
from Investment Earnings tab
from Transfers In tab

from G&A Expense tab
from Operating Expenses tab

from pIRP model, see pIRP Bulk Power Details tab

from Routine Capital tab
from Debt tab
from Debt tab

from Operating Transfers Out tab
from Other Capital Projects tab
from Undergrounding tab

Cum. balance from ann. Reserves Surplus/(Deficit), FY2004 starting balance \$10,823,127
Based on CWP budget formula dividing cum. wkg capital by avg daily oper. expenses

from Debt tab

Annual Rate Change	2.34%	2.34%	2.34%
	FY2024	FY2025	FY2026
Electric Revenue:			
Residential	\$ 21,824,911	\$ 22,351,621	\$ 22,899,653
Commercial	\$ 24,810,069	\$ 25,408,821	\$ 26,031,812
Public Authority	\$ 2,762,302	\$ 2,828,966	\$ 2,898,328
Streetlighting	\$ 236,747	\$ 236,920	\$ 237,183
Total Electric Revenue	\$ 49,634,029	\$ 50,826,328	\$ 52,066,976
Other Operating Revenues	\$ 764,537	\$ 749,813	\$ 738,636
Investment Earnings	\$ 29,588	\$ 58,985	\$ 55,895
Transfers in	\$ 177,527	\$ 187,180	\$ 195,027
Total Inflows	\$ 50,605,681	\$ 51,822,305	\$ 53,056,533
General and Administrative	\$ 2,712,088	\$ 2,844,235	\$ 2,953,616
Operating Expenses	\$ 6,582,666	\$ 6,804,309	\$ 6,985,485
Annual Purchase Power Increase		3%	3%
Purchase Power Expense	\$ 22,501,105	\$ 23,193,086	\$ 23,915,340
Total Operating Expense	\$ 31,795,859	\$ 32,841,630	\$ 33,854,441
Routine Capital	\$ 2,278,222	\$ 2,363,633	\$ 2,451,354
Principal Payment	\$ 3,225,000	\$ 3,340,000	\$ 3,465,000
Interest on Debt	\$ 1,483,690	\$ 1,341,553	\$ 1,215,733
Total Outflows	\$ 38,782,771	\$ 39,886,816	\$ 40,986,528
Available Funds	\$ 11,822,910	\$ 11,935,489	\$ 12,070,005
Operating Transfers Out	\$ 2,937,365	\$ 2,990,405	\$ 3,034,160
Other Capital Projects	\$ -	\$ 650,000	\$ 500,000
Undergrounding Power Lines	\$ 7,761,600	\$ 8,149,680	\$ 8,557,164
Annual Surplus/(Deficit)	\$ 1,123,945	\$ 145,404	\$ (21,319)
Cumulative Reserves Balance (Working Capital)	\$ 11,947,072	\$ 12,092,476	\$ 12,071,156
Number of Days of Working Capital	150	147	143
Bonds Outstanding	\$ 40,330,000	\$ 36,865,000	\$ 33,275,000

Summary

Annual Rate Change	2.34%	2.34%	2.34%
Total Electric Revenue	\$ 49,634,029	\$ 50,826,328	\$ 52,066,976
Purchase Power Expense	\$ 22,501,105	\$ 23,193,086	\$ 23,915,340
Reserves Surplus/(Deficit)	1,123,945	145,404	(21,319)
Working Capital - Cumulative Reserves Balance	\$ 11,947,072	\$ 12,092,476	\$ 12,071,156
Number of Days of Working Capital	150	147	143
Total Consumption (MWh)	424,921	425,232	425,703

Average Retail Rate (\$/kWh)	\$	0.117	\$	0.120	\$	0.122
Power Costs (\$/kWh)	\$	0.053	\$	0.055	\$	0.056

2.34% FY2027	2.34% FY2028	2.34% FY2029	2.34% FY2030	2.06% FY2031	2.06% FY2032	2.06% FY2033
\$ 23,435,779	\$ 23,996,056	\$ 24,545,697	\$ 25,123,568	\$ 25,593,204	\$ 26,076,309	\$ 26,582,055
\$ 26,641,268	\$ 27,278,178	\$ 27,902,997	\$ 28,559,908	\$ 29,093,780	\$ 29,642,962	\$ 30,217,884
\$ 2,966,184	\$ 3,037,096	\$ 3,106,662	\$ 3,179,802	\$ 3,239,242	\$ 3,300,387	\$ 3,364,397
\$ 237,189	\$ 237,310	\$ 237,199	\$ 237,235	\$ 236,787	\$ 236,383	\$ 236,099
\$ 53,280,420	\$ 54,548,641	\$ 55,792,555	\$ 57,100,513	\$ 58,163,013	\$ 59,256,040	\$ 60,400,435
\$ 730,409	\$ 724,644	\$ 720,937	\$ 718,957	\$ 718,433	\$ 695,763	\$ 701,636
\$ 52,712	\$ 33,236	\$ 15,281	\$ (1,318)	\$ (4,900)	\$ (8,590)	\$ (12,390)
\$ 202,191	\$ 209,366	\$ 216,634	\$ 224,194	\$ 232,057	\$ 240,241	\$ 248,759
\$ 54,265,732	\$ 55,515,886	\$ 56,745,407	\$ 58,042,345	\$ 59,108,603	\$ 60,183,454	\$ 61,338,439
\$ 3,051,668	\$ 3,153,326	\$ 3,258,744	\$ 3,368,085	\$ 3,481,519	\$ 3,599,226	\$ 3,721,396
\$ 7,172,332	\$ 7,359,701	\$ 7,499,027	\$ 7,494,433	\$ 7,646,146	\$ 7,854,404	\$ 8,069,455
3%	3%	3%	3%	3%	3%	3%
\$ 24,633,447	\$ 25,385,388	\$ 26,134,695	\$ 26,922,881	\$ 27,678,218	\$ 28,459,864	\$ 29,278,479
\$ 34,857,448	\$ 35,898,415	\$ 36,892,466	\$ 37,785,398	\$ 38,805,882	\$ 39,913,494	\$ 41,069,330
\$ 2,541,387	\$ 2,635,696	\$ 2,699,767	\$ 2,765,760	\$ 2,833,732	\$ 2,903,744	\$ 2,975,857
\$ 3,590,000	\$ 3,680,000	\$ 3,795,000	\$ 3,860,000	\$ 3,935,000	\$ 3,690,000	\$ 3,815,000
\$ 1,098,556	\$ 991,114	\$ 879,949	\$ 761,325	\$ 636,465	\$ 514,384	\$ 394,197
\$ 42,087,391	\$ 43,205,225	\$ 44,267,182	\$ 45,172,483	\$ 46,211,080	\$ 47,021,623	\$ 48,254,383
\$ 12,178,342	\$ 12,310,661	\$ 12,478,225	\$ 12,869,862	\$ 12,897,523	\$ 13,161,831	\$ 13,084,056
\$ 3,062,826	\$ 3,116,749	\$ 3,152,033	\$ 3,187,803	\$ 3,224,097	\$ 3,260,832	\$ 3,298,143
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ 8,985,022	\$ 9,434,273	\$ 9,905,987	\$ 10,401,286	\$ -	\$ -	\$ -
\$ (369,507)	\$ (740,362)	\$ (1,079,795)	\$ (1,219,227)	\$ 9,173,426	\$ 9,400,999	\$ 9,285,913
\$ 11,701,649	\$ 10,961,288	\$ 9,881,493	\$ 8,662,266	\$ 17,835,692	\$ 27,236,692	\$ 36,522,605
134	122	107	92	184	274	357
\$ 29,595,000	\$ 25,800,000	\$ 21,940,000	\$ 18,005,000	\$ 14,315,000	\$ 10,500,000	\$ 6,570,000
2.34%	2.34%	2.34%	2.34%	2.06%	2.06%	2.06%
\$ 53,280,420	\$ 54,548,641	\$ 55,792,555	\$ 57,100,513	\$ 58,163,013	\$ 59,256,040	\$ 60,400,435
\$ 24,633,447	\$ 25,385,388	\$ 26,134,695	\$ 26,922,881	\$ 27,678,218	\$ 28,459,864	\$ 29,278,479
(369,507)	(740,362)	(1,079,795)	(1,219,227)	9,173,426	9,400,999	9,285,913
\$ 11,701,649	\$ 10,961,288	\$ 9,881,493	\$ 8,662,266	\$ 17,835,692	\$ 27,236,692	\$ 36,522,605
134	122	107	92	184	274	357
425,714	425,931	425,732	425,797	424,993	424,267	423,758

\$	0.125	\$	0.128	\$	0.131	\$	0.134	\$	0.137	\$	0.140	\$	0.143
\$	0.058	\$	0.060	\$	0.061	\$	0.063	\$	0.065	\$	0.067	\$	0.069

2.06% FY2034	2.06% FY2035	2.06% FY2036	2.06% FY2037	2.06% FY2038	2.06% FY2039	2.06% FY2040
\$ 27,072,922	\$ 27,593,365	\$ 28,104,611	\$ 28,609,616	\$ 29,112,201	\$ 29,709,449	\$ 30,412,713
\$ 30,775,890	\$ 31,367,518	\$ 31,948,691	\$ 32,522,769	\$ 33,094,097	\$ 33,773,035	\$ 34,572,489
\$ 3,426,524	\$ 3,492,395	\$ 3,557,102	\$ 3,621,018	\$ 3,684,629	\$ 3,760,220	\$ 3,849,230
\$ 235,601	\$ 235,279	\$ 234,796	\$ 234,187	\$ 233,486	\$ 233,462	\$ 234,160
\$ 61,510,937	\$ 62,688,556	\$ 63,845,201	\$ 64,987,590	\$ 66,124,413	\$ 67,476,167	\$ 69,068,592
\$ 707,685	\$ 713,915	\$ 720,333	\$ 726,943	\$ 733,751	\$ 740,764	\$ 747,987
\$ (16,305)	\$ (20,336)	\$ (24,489)	\$ (28,766)	\$ (33,172)	\$ (37,710)	\$ (42,384)
\$ 257,579	\$ 266,711	\$ 276,168	\$ 285,960	\$ 296,099	\$ 306,597	\$ 317,468
\$ 62,459,896	\$ 63,648,846	\$ 64,817,212	\$ 65,971,727	\$ 67,121,090	\$ 68,485,818	\$ 70,091,663
\$ 3,848,227	\$ 3,979,929	\$ 4,116,723	\$ 4,258,841	\$ 4,406,529	\$ 4,560,045	\$ 4,719,661
\$ 8,291,557	\$ 8,520,982	\$ 8,758,012	\$ 9,002,943	\$ 9,256,088	\$ 9,517,769	\$ 9,788,328
3%	3%	3%	3%	3%	3%	3%
\$ 30,093,197	\$ 30,953,596	\$ 31,816,857	\$ 32,686,241	\$ 33,566,127	\$ 34,569,575	\$ 35,713,124
\$ 42,232,981	\$ 43,454,506	\$ 44,691,591	\$ 45,948,025	\$ 47,228,743	\$ 48,647,388	\$ 50,221,113
\$ 3,050,132	\$ 3,126,636	\$ 3,205,435	\$ 3,286,598	\$ 3,370,196	\$ 3,456,302	\$ 3,544,991
\$ 3,930,000	\$ 2,090,000	\$ 2,095,000	\$ 1,175,000	\$ 1,210,000	\$ -	\$ -
\$ 270,127	\$ 173,448	\$ 106,017	\$ 54,675	\$ 18,900	\$ -	\$ -
\$ 49,483,240	\$ 48,844,591	\$ 50,098,044	\$ 50,464,299	\$ 51,827,840	\$ 52,103,691	\$ 53,766,104
\$ 12,976,655	\$ 14,804,256	\$ 14,719,168	\$ 15,507,428	\$ 15,293,251	\$ 16,382,127	\$ 16,325,558
\$ 3,335,966	\$ 3,374,308	\$ 3,413,181	\$ 3,452,594	\$ 3,492,555	\$ 3,533,077	\$ 3,574,168
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 9,140,690	\$ 10,929,947	\$ 10,805,987	\$ 11,554,834	\$ 11,300,695	\$ 12,349,050	\$ 12,251,390
\$ 45,663,294	\$ 56,593,242	\$ 67,399,229	\$ 78,954,063	\$ 90,254,758	\$ 102,603,809	\$ 114,855,199
434	523	606	691	769	849	921
\$ 4,480,000	\$ 2,385,000	\$ 1,210,000	\$ -	\$ -	\$ -	\$ -
2.06%	2.06%	2.06%	2.06%	2.06%	2.06%	2.06%
\$ 61,510,937	\$ 62,688,556	\$ 63,845,201	\$ 64,987,590	\$ 66,124,413	\$ 67,476,167	\$ 69,068,592
\$ 30,093,197	\$ 30,953,596	\$ 31,816,857	\$ 32,686,241	\$ 33,566,127	\$ 34,569,575	\$ 35,713,124
9,140,690	10,929,947	10,805,987	11,554,834	11,300,695	12,349,050	12,251,390
\$ 45,663,294	\$ 56,593,242	\$ 67,399,229	\$ 78,954,063	\$ 90,254,758	\$ 102,603,809	\$ 114,855,199
434	523	606	691	769	849	921
422,864	422,286	421,420	420,325	419,068	419,025	420,278

\$	0.145	\$	0.148	\$	0.152	\$	0.155	\$	0.158	\$	0.161	\$	0.164
\$	0.071	\$	0.073	\$	0.075	\$	0.078	\$	0.080	\$	0.082	\$	0.085

2.06% FY2041	2.06% FY2042	2.06% FY2043	2.06% FY2044	2.06% FY2045	2.06% FY2046	2.06% FY2047
\$ 31,235,069	\$ 32,142,617	\$ 33,199,989	\$ 34,376,250	\$ 35,744,007	\$ 36,417,754	\$ 37,110,043
\$ 35,507,325	\$ 36,539,005	\$ 37,741,002	\$ 39,078,149	\$ 40,632,985	\$ 41,398,885	\$ 42,185,864
\$ 3,953,313	\$ 4,068,178	\$ 4,202,006	\$ 4,350,881	\$ 4,523,993	\$ 4,609,267	\$ 4,696,887
\$ 235,633	\$ 237,581	\$ 240,438	\$ 243,927	\$ 248,509	\$ 248,077	\$ 247,686
\$ 70,931,340	\$ 72,987,381	\$ 75,383,435	\$ 78,049,207	\$ 81,149,493	\$ 82,673,983	\$ 84,240,480
\$ 755,426	\$ 763,089	\$ 770,982	\$ 779,111	\$ 787,484	\$ 796,109	\$ 804,992
\$ (47,198)	\$ (52,156)	\$ (57,264)	\$ (62,524)	\$ (67,942)	\$ (73,523)	\$ (79,272)
\$ 328,724	\$ 340,379	\$ 352,448	\$ 364,944	\$ 377,884	\$ 391,282	\$ 405,155
\$ 71,968,292	\$ 74,038,693	\$ 76,449,601	\$ 79,130,738	\$ 82,246,919	\$ 83,787,850	\$ 85,371,356
\$ 4,885,666	\$ 5,058,363	\$ 5,238,073	\$ 5,425,133	\$ 5,619,903	\$ 5,822,760	\$ 6,034,103
\$ 10,068,121	\$ 10,357,522	\$ 10,656,923	\$ 10,966,735	\$ 11,287,390	\$ 11,619,342	\$ 11,963,066
3%	3%	3%	3%	3%	3%	3%
\$ 37,015,907	\$ 38,441,507	\$ 40,071,017	\$ 41,872,044	\$ 43,938,189	\$ 45,177,825	\$ 46,459,750
\$ 51,969,694	\$ 53,857,392	\$ 55,966,012	\$ 58,263,913	\$ 60,845,483	\$ 62,619,927	\$ 64,456,919
\$ 3,636,341	\$ 3,730,431	\$ 3,827,344	\$ 3,927,165	\$ 4,029,980	\$ 4,135,879	\$ 4,244,955
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 55,606,035	\$ 57,587,823	\$ 59,793,356	\$ 62,191,077	\$ 64,875,462	\$ 66,755,806	\$ 68,701,874
\$ 16,362,257	\$ 16,450,870	\$ 16,656,245	\$ 16,939,661	\$ 17,371,457	\$ 17,032,045	\$ 16,669,482
\$ 3,615,840	\$ 3,658,103	\$ 3,700,969	\$ 3,744,448	\$ 3,788,553	\$ 3,833,296	\$ 3,878,688
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 12,246,417	\$ 12,292,767	\$ 12,455,276	\$ 12,695,212	\$ 13,082,904	\$ 12,698,749	\$ 12,290,794
\$ 127,101,617	\$ 139,394,383	\$ 151,849,659	\$ 164,544,872	\$ 177,627,775	\$ 190,326,524	\$ 202,617,318
985	1,043	1,093	1,137	1,174	1,223	1,266
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2.06%	2.06%	2.06%	2.06%	2.06%	2.06%	2.06%
\$ 70,931,340	\$ 72,987,381	\$ 75,383,435	\$ 78,049,207	\$ 81,149,493	\$ 82,673,983	\$ 84,240,480
\$ 37,015,907	\$ 38,441,507	\$ 40,071,017	\$ 41,872,044	\$ 43,938,189	\$ 45,177,825	\$ 46,459,750
12,246,417	12,292,767	12,455,276	12,695,212	13,082,904	12,698,749	12,290,794
\$ 127,101,617	\$ 139,394,383	\$ 151,849,659	\$ 164,544,872	\$ 177,627,775	\$ 190,326,524	\$ 202,617,318
985	1,043	1,093	1,137	1,174	1,223	1,266
422,922	426,417	431,547	437,809	446,031	445,257	444,555

\$	0.168	\$	0.171	\$	0.175	\$	0.178	\$	0.182	\$	0.186	\$	0.189
\$	0.088	\$	0.090	\$	0.093	\$	0.096	\$	0.099	\$	0.101	\$	0.105

2.06% FY2048	2.06% FY2049	2.06% FY2050
\$ 37,833,202	\$ 38,570,893	\$ 39,438,796
\$ 43,007,935	\$ 43,846,526	\$ 44,833,138
\$ 4,788,415	\$ 4,881,782	\$ 2,881,066
\$ 247,411	\$ 247,139	\$ 247,595
\$ 85,876,964	\$ 87,546,340	\$ 87,400,595
\$ 814,142	\$ 823,566	\$ 833,273
\$ (85,192)	\$ (91,291)	\$ (97,572)
\$ 419,521	\$ 434,395	\$ 449,797
\$ 87,025,434	\$ 88,713,011	\$ 88,586,094
\$ 6,254,356	\$ 6,483,965	\$ 6,724,360
\$ 12,319,061	\$ 12,687,855	\$ 13,069,998
3%	3%	3%
\$ 47,800,425	\$ 49,180,349	\$ 50,749,154
\$ 66,373,843	\$ 68,352,169	\$ 70,543,512
\$ 4,357,304	\$ 4,473,023	\$ 4,592,214
\$ -	\$ -	\$ -
\$ -	\$ -	\$ -
\$ 70,731,147	\$ 72,825,192	\$ 75,135,726
\$ 16,294,287	\$ 15,887,820	\$ 13,450,368
\$ 3,924,743	\$ 3,971,472	\$ 4,018,890
\$ 500,000	\$ 500,000	\$ 500,000
\$ -	\$ -	\$ -
\$ 11,869,545	\$ 11,416,347	\$ 8,931,478
\$ 214,486,863	\$ 225,903,210	\$ 234,834,688
1,302	1,333	1,343
\$ -	\$ -	\$ -

2.06%	2.06%	2.06%
\$ 85,876,964	\$ 87,546,340	\$ 87,400,595
\$ 47,800,425	\$ 49,180,349	\$ 50,749,154
11,869,545	11,416,347	8,931,478
\$ 214,486,863	\$ 225,903,210	\$ 234,834,688
1,302	1,333	1,343
444,061	443,573	444,391

\$	0.193	\$	0.197	\$	0.197
\$	0.108	\$	0.111	\$	0.114

Comments

from Revenue and Sales by Class tab
from Revenue and Sales by Class tab
from Revenue and Sales by Class tab
from Revenue and Sales by Class tab

from Other Operating Revenues tab
from Investment Earnings tab
from Transfers In tab

from G&A Expense tab
from Operating Expenses tab

from pIRP model, see pIRP Bulk Power Details tab

from Routine Capital tab
from Debt tab
from Debt tab

from Operating Transfers Out tab
from Other Capital Projects tab
from Undergrounding tab

Cum. balance from ann. Reserves Surplus/(Deficit), FY2004 starting balance \$10,823,127
Based on CWP budget formula dividing cum. wkg capital by avg daily oper. expenses

from Debt tab

Case	Element	FY2024
Base Case - Renewable Supply - Results with Existing 2023 Rates Escalated at Increase Noted and IRP		
1	Case Objective - Set Annual Revenue Change to Create Steady Change from 2023	
	Annual Revenue Change	2.34%
	Total Electric Revenue	\$ 49,634,029
	Purchase Power Expense	\$ 22,730,000
	Annual Surplus/(Deficit)	895,050
	Working Capital - Cumulative Reserves Balance	\$ 11,718,177
	Number of Days of Working Capital	134
	Total Consumption (MWh)	424,921
	Average Retail Rate	\$ 0.117
	Power Costs (\$/kWh)	\$ 0.053

Results with 2023 Existing Rates Escalated at Increase Noted and CWP Pwr Costs Escalated at 3%		
2	Case Objective - Set Annual Revenue Change to Create Steady Change from 2023	
	Annual Revenue Change	2.04%
	Total Electric Revenue	\$ 49,489,674
	Purchase Power Expense	\$ 22,501,105
	Annual Surplus/(Deficit)	979,589
	Working Capital - Cumulative Reserves Balance	\$ 11,802,716
	Number of Days of Working Capital	148
	Total Consumption (MWh)	424,921
	Average Retail Rate	\$ 0.116
	Presumed Competitor Power Cost per MWh (\$/kWh)	\$ 0.053

Alternative Cases with 3 rate changes

Case 1a - Case Objective - Set Annual Revenue Change to Create Steady Change from 2023 to 2030 and

Summary

Annual Rate Change	2.34%
Total Electric Revenue	\$ 49,634,029
Purchase Power Expense	\$ 22,730,000
Annual Surplus/(Deficit)	895,050
Working Capital - Cumulative Reserves Balance	\$ 11,718,177
Number of Days of Working Capital	134
Total Consumption (MWh)	424,921
Average Retail Rate (\$/kWh)	\$ 0.117

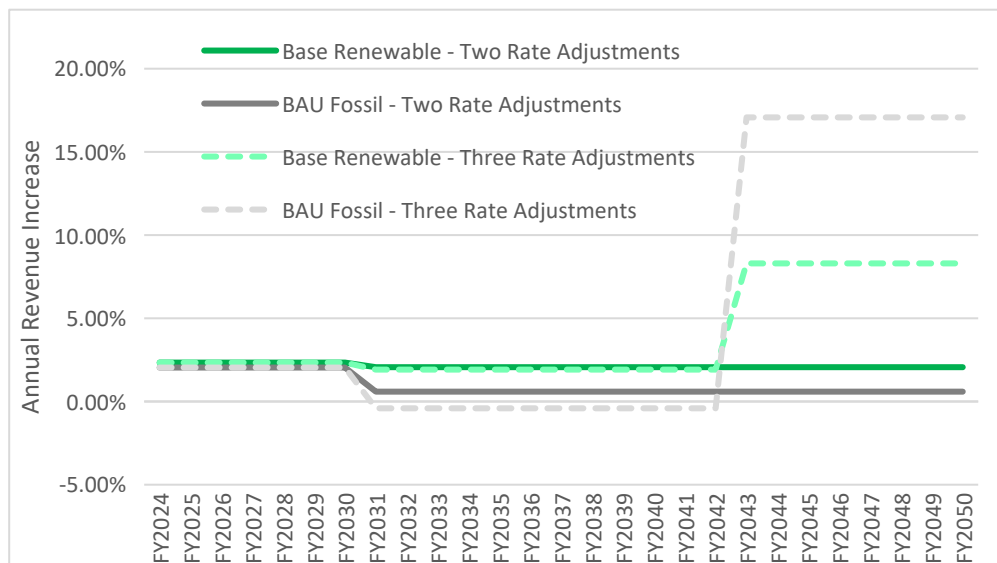
Power Costs (\$/kWh)

\$ 0.053

Case 2a - Case Objective - Set Annual Revenue Change to Create Steady Change from 2023 to 2030 and

Summary

Annual Rate Change	2.04%
Total Electric Revenue	\$ 49,489,674
Purchase Power Expense	\$ 22,501,105
Annual Surplus/(Deficit)	979,589
Working Capital - Cumulative Reserves Balance	\$ 11,802,716
Number of Days of Working Capital	148
Total Consumption (MWh)	424,921
Average Retail Rate (\$/kWh)	\$ 0.116
Power Costs (\$/kWh)	\$ 0.053



	FY2025		FY2026		FY2027		FY2028		FY2029
Scenario 3D Power Costs									
to 2030 and WC $\geq$ 45 days, then a new steady rate to 2049 with WC $\geq$ 45 days									
	2.34%		2.34%		2.34%		2.34%		2.34%
\$	50,826,328	\$	52,066,976	\$	53,280,420	\$	54,548,641	\$	55,792,555
\$	23,110,000	\$	24,180,000	\$	25,210,000	\$	26,460,000	\$	27,260,000
	228,490		(285,980)		(946,060)		(1,814,973)		(2,205,099)
\$	11,946,667	\$	11,660,687	\$	10,714,627	\$	8,899,653	\$	6,694,554
	133		125		110		88		64
	425,232		425,703	\$	425,714.183		425,931		425,732
\$	0.120	\$	0.122	\$	0.125	\$	0.128	\$	0.131
\$	0.054	\$	0.057	\$	0.059	\$	0.062	\$	0.064

to 2030 and WC $\geq$ 45 days, then a new steady rate to 2049 with WC $\geq$ 45 days									
	2.04%		2.04%		2.04%		2.04%		2.04%
\$	50,531,081	\$	51,613,911	\$	52,663,092	\$	53,759,686	\$	54,825,537
\$	23,193,086	\$	23,915,340	\$	24,633,447	\$	25,385,388	\$	26,134,695
	(149,842)		(474,385)		(986,834)		(1,529,316)		(2,046,813)
\$	11,652,874	\$	11,178,490	\$	10,191,655	\$	8,662,339	\$	6,615,526
	142		132		117		97		72
	425,232		425,703		425,714		425,931		425,732
\$	0.119	\$	0.121	\$	0.124	\$	0.126	\$	0.129
\$	0.055	\$	0.056	\$	0.058	\$	0.060	\$	0.061

to 2030 and WC $\geq$ 45 days, then 2031 to 2042 and 2043 to 2049 both with WC $\geq$ 45 days

	2.34%		2.34%		2.34%		2.34%		2.34%
\$	50,826,328	\$	52,066,976	\$	53,280,420	\$	54,548,641	\$	55,792,555
\$	23,110,000	\$	24,180,000	\$	25,210,000	\$	26,460,000	\$	27,260,000
	228,490		(285,980)		(946,060)		(1,814,973)		(2,205,099)
\$	11,946,667	\$	11,660,687	\$	10,714,627	\$	8,899,653	\$	6,694,554
	133		125		110		88		64
	425,232		425,703		425,714		425,931		425,732
\$	0.120	\$	0.122	\$	0.125	\$	0.128	\$	0.131

\$	0.054	\$	0.057	\$	0.059	\$	0.062	\$	0.064
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! WC $\geq$ 45 days, then 2031 to 2042 and 4043 to 2049 both with WC $\geq$ 45 days

	2.04%		2.04%		2.04%		2.04%		2.04%
\$	50,531,081	\$	51,613,911	\$	52,663,092	\$	53,759,686	\$	54,825,537
\$	23,193,086	\$	23,915,340	\$	24,633,447	\$	25,385,388	\$	26,134,695
	(149,842)		(474,385)		(986,834)		(1,529,316)		(2,046,813)
\$	11,652,874	\$	11,178,490	\$	10,191,655	\$	8,662,339	\$	6,615,526
	142		132		117		97		72
	425,232		425,703		425,714		425,931		425,732
\$	0.119	\$	0.121	\$	0.124	\$	0.126	\$	0.129
\$	0.055	\$	0.056	\$	0.058	\$	0.060	\$	0.061

FY2030		FY2031		FY2032		FY2033		FY2034	
2.34%		2.06%		2.06%		2.06%		2.06%	
\$	57,100,513	\$	58,163,013	\$	59,256,040	\$	60,400,435	\$	61,510,937
\$	27,650,000	\$	27,610,000	\$	29,890,000	\$	31,820,000	\$	34,750,000
	(1,946,346)		9,241,644		7,970,863		6,744,392		4,483,887
\$	4,748,208	\$	13,989,852	\$	21,960,715	\$	28,705,107	\$	33,188,994
45		132		194		240		258	
	425,797		424,993		424,267		423,758		422,864
\$	0.134	\$	0.137	\$	0.140	\$	0.143	\$	0.145
\$	0.065	\$	0.065	\$	0.070	\$	0.075	\$	0.082

2.04%		0.59%		0.59%		0.59%		0.59%	
\$	55,947,447	\$	56,171,286	\$	56,406,173	\$	56,670,879	\$	56,884,961
\$	26,922,881	\$	27,678,218	\$	28,459,864	\$	29,278,479	\$	30,093,197
	(2,372,293)		7,181,699		6,551,132		5,556,357		4,514,714
\$	4,243,234	\$	11,424,933	\$	17,976,064	\$	23,532,422	\$	28,047,135
45		118		181		230		267	
	425,797		424,993		424,267		423,758		422,864
\$	0.131	\$	0.132	\$	0.133	\$	0.134	\$	0.135
\$	0.063	\$	0.065	\$	0.067	\$	0.069	\$	0.071

2.34%		1.92%		1.92%		1.92%		1.92%	
\$	57,100,513	\$	58,080,563	\$	59,088,147	\$	60,143,894	\$	61,162,813
\$	27,650,000	\$	27,610,000	\$	29,890,000	\$	31,820,000	\$	34,750,000
	(1,946,346)		9,159,194		7,802,970		6,487,850		4,135,763
\$	4,748,208	\$	13,907,402	\$	21,710,372	\$	28,198,222	\$	32,333,985
45		131		192		236		252	
	425,797		424,993		424,267		423,758		422,864
\$	0.134	\$	0.137	\$	0.139	\$	0.142	\$	0.145

\$	0.065	\$	0.065	\$	0.070	\$	0.075	\$	0.082
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	2.04%		-0.41%		-0.41%		-0.41%		-0.41%
\$	55,947,447	\$	55,614,056	\$	55,292,599	\$	55,000,984	\$	54,661,064
\$	26,922,881	\$	27,678,218	\$	28,459,864	\$	29,278,479	\$	30,093,197
	(2,372,293)		6,624,469		5,437,558		3,886,462		2,290,817
\$	4,243,234	\$	10,867,702	\$	16,305,261	\$	20,191,723	\$	22,482,539
	45		112		164		197		214
	425,797		424,993		424,267		423,758		422,864
\$	0.131	\$	0.131	\$	0.130	\$	0.130	\$	0.129
\$	0.063	\$	0.065	\$	0.067	\$	0.069	\$	0.071

	FY2035		FY2036		FY2037		FY2038		FY2039
	2.06%		2.06%		2.06%		2.06%		2.06%
\$	62,688,556	\$	63,845,201	\$	64,987,590	\$	66,124,413	\$	67,476,167
\$	35,930,000	\$	42,600,000	\$	44,680,000	\$	47,760,000	\$	50,900,000
	5,953,543		22,844		(438,925)		(2,893,178)		(3,981,375)
\$	39,142,537	\$	39,165,382	\$	38,726,457	\$	35,833,279	\$	31,851,904
	295		258		244		213		179
	422,286		421,420		420,325		419,068		419,025
\$	0.148	\$	0.152	\$	0.155	\$	0.158	\$	0.161
\$	0.085	\$	0.101	\$	0.106	\$	0.114	\$	0.121

	0.59%		0.59%		0.59%		0.59%		0.59%
\$	57,142,337	\$	57,361,696	\$	57,550,295	\$	57,716,735	\$	58,051,382
\$	30,953,596	\$	31,816,857	\$	32,686,241	\$	33,566,127	\$	34,569,575
	5,383,728		4,322,482		4,117,539		2,893,018		2,924,265
\$	33,430,863	\$	37,753,346	\$	41,870,885	\$	44,763,903	\$	47,688,168
	309		340		367		382		395
	422,286		421,420		420,325		419,068		419,025
\$	0.135	\$	0.136	\$	0.137	\$	0.138	\$	0.139
\$	0.073	\$	0.075	\$	0.078	\$	0.080	\$	0.082

	1.92%		1.92%		1.92%		1.92%		1.92%
\$	62,245,351	\$	63,303,886	\$	64,345,166	\$	65,377,846	\$	66,619,658
\$	35,930,000	\$	42,600,000	\$	44,680,000	\$	47,760,000	\$	50,900,000
	5,510,338		(518,470)		(1,081,350)		(3,639,744)		(4,837,884)
\$	37,844,324	\$	37,325,854	\$	36,244,504	\$	32,604,760	\$	27,766,876
	285		246		228		194		156
	422,286		421,420		420,325		419,068		419,025
\$	0.147	\$	0.150	\$	0.153	\$	0.156	\$	0.159

\$	0.085	\$	0.101	\$	0.106	\$	0.114	\$	0.121
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	-0.41%		-0.41%		-0.41%		-0.41%		-0.41%
\$	54,363,660	\$	54,030,964	\$	53,670,829	\$	53,292,058	\$	53,069,286
\$	30,953,596	\$	31,816,857	\$	32,686,241	\$	33,566,127	\$	34,569,575
	2,605,051		991,751		238,073		(1,531,660)		(2,057,830)
\$	25,087,591	\$	26,079,341	\$	26,317,415	\$	24,785,755	\$	22,727,925
	232		235		230		211		188
	422,286		421,420		420,325		419,068		419,025
\$	0.129	\$	0.128	\$	0.128	\$	0.127	\$	0.127
\$	0.073	\$	0.075	\$	0.078	\$	0.080	\$	0.082

	FY2040		FY2041		FY2042		FY2043		FY2044
	2.06%		2.06%		2.06%		2.06%		2.06%
\$	69,068,592	\$	70,931,340	\$	72,987,381	\$	75,383,435	\$	78,049,207
\$	54,070,000	\$	54,570,000	\$	55,090,000	\$	55,640,000	\$	56,220,000
	(6,105,486)		(5,307,676)		(4,355,726)		(3,113,707)		(1,652,743)
\$	25,746,418	\$	20,438,743	\$	16,083,017	\$	12,969,309	\$	11,316,566
	137		107		83		66		57
	420,278		422,922		426,417		431,547		437,809
\$	0.164	\$	0.168	\$	0.171	\$	0.175	\$	0.178
\$	0.129	\$	0.129	\$	0.129	\$	0.129	\$	0.128

	0.59%		0.59%		0.59%		0.59%		0.59%
\$	58,568,544	\$	59,284,765	\$	60,127,521	\$	61,209,875	\$	62,464,547
\$	35,713,124	\$	37,015,907	\$	38,441,507	\$	40,071,017	\$	41,872,044
	1,751,343		599,843		(567,093)		(1,718,284)		(2,889,447)
\$	49,439,511	\$	50,039,354	\$	49,472,261	\$	47,753,977	\$	44,864,530
	397		388		370		344		310
	420,278		422,922		426,417		431,547		437,809
\$	0.139	\$	0.140	\$	0.141	\$	0.142	\$	0.143
\$	0.085	\$	0.088	\$	0.090	\$	0.093	\$	0.096

	1.92%		1.92%		1.92%		8.30%		8.30%
\$	68,095,080	\$	69,832,302	\$	71,754,470	\$	78,623,996	\$	86,364,156
\$	54,070,000	\$	54,570,000	\$	55,090,000	\$	55,640,000	\$	56,220,000
	(7,078,997)		(6,406,713)		(5,588,636)		126,854		6,662,206
\$	20,687,879	\$	14,281,166	\$	8,692,529	\$	8,819,383	\$	15,481,589
	110		75		45		45		78
	420,278		422,922		426,417		431,547		437,809
\$	0.162	\$	0.165	\$	0.168	\$	0.182	\$	0.197

\$	0.129	\$	0.129	\$	0.129	\$	0.129	\$	0.128
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	-0.41%		-0.41%		-0.41%		17.07%		17.07%
\$	53,010,884	\$	53,126,795	\$	53,347,452	\$	63,165,970	\$	74,982,084
\$	35,713,124	\$	37,015,907	\$	38,441,507	\$	40,071,017	\$	41,872,044
	(3,806,318)		(5,558,127)		(7,347,162)		237,811		9,628,090
\$	18,921,607	\$	13,363,480	\$	6,016,318	\$	6,254,130	\$	15,882,220
	152		104		45		45		110
	420,278		422,922		426,417		431,547		437,809
\$	0.126	\$	0.126	\$	0.125	\$	0.146	\$	0.171
\$	0.085	\$	0.088	\$	0.090	\$	0.093	\$	0.096

	FY2045		FY2046		FY2047		FY2048		FY2049
	2.06%		2.06%		2.06%		2.06%		2.06%
\$	81,149,493	\$	82,673,983	\$	84,240,480	\$	85,876,964	\$	87,546,340
\$	55,530,000	\$	57,320,000	\$	59,670,000	\$	61,670,000	\$	61,140,000
	1,491,093		556,574		(919,456)		(2,000,030)		(543,304)
\$	12,807,659	\$	13,364,233	\$	12,444,777	\$	10,444,746	\$	9,901,442
	65		65		58		48		45
	446,031		445,257		444,555		444,061		443,573
\$	0.182	\$	0.186	\$	0.189	\$	0.193	\$	0.197
\$	0.124	\$	0.129	\$	0.134	\$	0.139	\$	0.138

	0.59%		0.59%		0.59%		0.59%		0.59%
\$	64,013,260	\$	64,279,358	\$	64,556,735	\$	64,865,681	\$	65,176,858
\$	43,938,189	\$	45,177,825	\$	46,459,750	\$	47,800,425	\$	49,180,349
	(4,053,329)		(5,695,876)		(7,392,951)		(9,141,738)		(10,953,136)
\$	40,811,201	\$	35,115,325	\$	27,722,373	\$	18,580,636	\$	7,627,500
	270		226		173		113		45
	446,031		445,257		444,555		444,061		443,573
\$	0.144	\$	0.144	\$	0.145	\$	0.146	\$	0.147
\$	0.099	\$	0.101	\$	0.105	\$	0.108	\$	0.111

	8.30%		8.30%		8.30%		8.30%		8.30%
\$	95,267,314	\$	102,973,782	\$	111,322,880	\$	120,406,983	\$	130,235,545
\$	55,530,000	\$	57,320,000	\$	59,670,000	\$	61,670,000	\$	61,140,000
	15,608,913		20,856,373		26,162,944		32,529,990		42,145,900
\$	31,090,502	\$	51,946,876	\$	78,109,819	\$	110,639,809	\$	152,785,709
	157		254		367		503		694
	446,031		445,257		444,555		444,061		443,573
\$	0.214	\$	0.231	\$	0.250	\$	0.271	\$	0.294

\$	0.124	\$	0.129	\$	0.134	\$	0.139	\$	0.138
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	17.07%		17.07%		17.07%		17.07%		17.07%
\$	89,390,445	\$	104,428,692	\$	122,023,251	\$	142,656,181	\$	166,787,026
\$	43,938,189	\$	45,177,825	\$	46,459,750	\$	47,800,425	\$	49,180,349
	21,323,855		34,453,458		50,073,565		68,648,762		90,657,033
\$	37,206,075	\$	71,659,533	\$	121,733,098	\$	190,381,859	\$	281,038,892
	246		461		761		1,156		1,658
	446,031		445,257		444,555		444,061		443,573
\$	0.200	\$	0.235	\$	0.274	\$	0.321	\$	0.376
\$	0.099	\$	0.101	\$	0.105	\$	0.108	\$	0.111

	Average Annual Revenue Increase 2024 to 2030	Average Annual Revenue Increase 2024 to 2042	Average Annual Revenue Increase 2024 to 2050	Notes
FY2050				

	2.06%			
\$ 87,400,595	2.4%	2.2%	2.2%	
\$ 113,200,000				
(53,519,368)				
\$ (43,617,926)				
(120)				
444,391				
\$ 0.197				
\$ 0.255				

	0.59%			
\$ 64,862,898	2.1%	1.1%	1.1%	
\$ 50,749,154				
(13,606,219)				
\$ (5,978,719)				
(34)				
444,391				
\$ 0.146				
\$ 0.114				

	8.30%
\$ 136,453,426	
\$ 113,200,000	
(4,466,538)	
\$ 148,319,171	
407	
444,391	
\$ 0.307	

\$ 0.255

17.07%

\$ 187,963,023

\$ 50,749,154

109,493,906

\$ 390,532,798

2,234

444,391

\$ 0.423

\$ 0.114

Account Description	FY2024	FY2025
CWP Budget		
Total Sales (MWh)	425,000	429,250
Total Inflows - Revenue (\$)	\$ 49,485,906	\$ 50,048,923
Purchase Power Expense (\$)	\$ 22,505,275	\$ 23,116,081
Non-Purchased Power Cost (\$)	\$ 26,980,629	\$ 28,483,814
Reserves Surplus/(Deficit)	\$ 2	\$ (1,550,972)
Average Revenue (\$/kWh)	\$ 0.116	\$ 0.117
Average Power Cost (\$/kWh)	\$ 0.053	\$ 0.054
Average Rev - Power Cost (\$/kWh)	\$ 0.063	\$ 0.063

QTech Pro-Forma With Existing Rates- pIRP Purchased Power Cost

Annual Rate Change	2.34%	2.34%
Total Sales (MWh)	424,921	425,232
Total Revenue (\$)	\$ 50,605,681	\$ 51,822,305
Purchase Power Expense (\$)	\$ 22,730,000	\$ 23,110,000
Non-Purchased Power Cost (\$)	\$ 26,980,631	\$ 28,483,815
Reserves Surplus/(Deficit)	\$ 895,050	\$ 228,490
Average Revenue (\$/kWh)	\$ 0.119	\$ 0.122
Average Power Cost (\$/kWh)	\$ 0.053	\$ 0.054
Average Rev - Power Cost (\$/kWh)	\$ 0.066	\$ 0.068

QTech Pro-Forma With Existing Rates- 3% Purchased Power Annual Increase

Annual Rate Change	2.34%	2.34%
Total Sales (MWh)	424,921	425,232
Total Revenue (\$)	\$ 50,605,681	\$ 51,822,305
Purchase Power Expense (\$)	\$ 22,501,105	\$ 23,193,086
Non-Purchased Power Cost (\$)	\$ 26,980,631	\$ 28,483,815
Reserves Surplus/(Deficit)	\$ 1,123,945	\$ 145,404
Average Revenue (\$/kWh)	\$ 0.119	\$ 0.122
Average Power Cost (\$/kWh)	\$ 0.053	\$ 0.055
Average Rev - Power Cost (\$/kWh)	\$ 0.066	\$ 0.067

Difference QTech Pro-Forma With Existing Rates- pIRP Purchased Power Cost less CWP Budget

Total Sales (MWh)	(79)	(4,018)
Total Inflows - Revenue (\$)	1,119,775	1,773,382
Purchase Power Expense (\$)	224,725	(6,081)
Non-Purchased Power Cost (\$)	2	2
Reserves Surplus/(Deficit)	895,048	1,779,461

Difference QTech Pro-Forma With Existing Rates- 3% Purchased Power Annual Increase less CWP Budget

Total Sales (MWh)	(79)	(4,018)
Total Inflows - Revenue (\$)	1,119,775	1,773,382
Purchase Power Expense (\$)	(4,170)	77,005

Non-Purchased Power Cost (\$)	2	2
Reserves Surplus/(Deficit)	1,123,943	1,696,376

Difference QTech Pro-Forma With Existing Rates- pIRP Purchased Power Cost less QTech P

Total Sales (MWh)	-	-
Total Inflows - Revenue (\$)	-	-
Purchase Power Expense (\$)	228,895	(83,086)
Non-Purchased Power Cost (\$)	-	-
Reserves Surplus/(Deficit)	(228,895)	83,086

	FY2026		FY2027		FY2028		FY2029		FY2030		FY2031
	433,543		437,878		442,257		446,679		451,146		455,658
\$	50,588,188	\$	51,136,739	\$	51,678,700	\$	52,231,690	\$	52,795,537	\$	53,381,772
\$	23,767,267	\$	24,462,577	\$	25,206,127	\$	26,002,438	\$	26,856,478	\$	27,773,709
\$	29,162,511	\$	30,001,791	\$	30,870,858	\$	31,690,504	\$	32,338,689	\$	22,256,957
\$	(2,341,591)	\$	(3,327,629)	\$	(4,398,285)	\$	(5,461,252)	\$	(6,399,631)	\$	3,351,105
\$	0.117	\$	0.117	\$	0.117	\$	0.117	\$	0.117	\$	0.117
\$	0.055	\$	0.056	\$	0.057	\$	0.058	\$	0.060	\$	0.061
\$	0.062	\$	0.061	\$	0.060	\$	0.059	\$	0.057	\$	0.056
	2.34%		2.34%		2.34%		2.34%		2.34%		2.06%
	425,703		425,714		425,931		425,732		425,797		424,993
\$	53,056,533	\$	54,265,732	\$	55,515,886	\$	56,745,407	\$	58,042,345	\$	59,108,603
\$	24,180,000	\$	25,210,000	\$	26,460,000	\$	27,260,000	\$	27,650,000	\$	27,610,000
\$	29,162,513	\$	30,001,792	\$	30,870,860	\$	31,690,506	\$	32,338,691	\$	22,256,959
\$	(285,980)	\$	(946,060)	\$	(1,814,973)	\$	(2,205,099)	\$	(1,946,346)	\$	9,241,644
\$	0.125	\$	0.127	\$	0.130	\$	0.133	\$	0.136	\$	0.139
\$	0.057	\$	0.059	\$	0.062	\$	0.064	\$	0.065	\$	0.065
\$	0.068	\$	0.068	\$	0.068	\$	0.069	\$	0.071	\$	0.074
	2.34%		2.34%		2.34%		2.34%		2.34%		2.06%
	425,703		425,714		425,931		425,732		425,797		424,993
\$	53,056,533	\$	54,265,732	\$	55,515,886	\$	56,745,407	\$	58,042,345	\$	59,108,603
\$	23,915,340	\$	24,633,447	\$	25,385,388	\$	26,134,695	\$	26,922,881	\$	27,678,218
\$	29,162,513	\$	30,001,792	\$	30,870,860	\$	31,690,506	\$	32,338,691	\$	22,256,959
\$	(21,319)	\$	(369,507)	\$	(740,362)	\$	(1,079,795)	\$	(1,219,227)	\$	9,173,426
\$	0.125	\$	0.127	\$	0.130	\$	0.133	\$	0.136	\$	0.139
\$	0.056	\$	0.058	\$	0.060	\$	0.061	\$	0.063	\$	0.065
\$	0.068	\$	0.070	\$	0.071	\$	0.072	\$	0.073	\$	0.074
dget											
	(7,839)		(12,164)		(16,325)		(20,948)		(25,349)		(30,664)
	2,468,346		3,128,993		3,837,186		4,513,717		5,246,808		5,726,831
	412,733		747,423		1,253,873		1,257,562		793,522		(163,709)
	2		2		2		2		2		2
	2,055,611		2,381,569		2,583,312		3,256,153		4,453,285		5,890,539
ss CWP Budget											
	(7,839)		(12,164)		(16,325)		(20,948)		(25,349)		(30,664)
	2,468,346		3,128,993		3,837,186		4,513,717		5,246,808		5,726,831
	148,073		170,870		179,261		132,257		66,402		(95,492)

2	2	2	2	2	2
2,320,271	2,958,122	3,657,924	4,381,458	5,180,404	5,822,321

Pro-Forma With Existing Rates- 3% Purchased Power Annual Increase

-	-	-	-	-	-
-	-	-	-	-	-
264,660	576,553	1,074,612	1,125,305	727,119	(68,218)
-	-	-	-	-	-
(264,660)	(576,553)	(1,074,612)	(1,125,305)	(727,119)	68,218

	FY2032		FY2033
	460,214		464,816
\$	53,953,815	\$	54,562,504
\$	28,760,132	\$	29,822,345
\$	22,322,589	\$	22,774,046
\$	2,871,094	\$	1,966,113
\$	0.117	\$	0.117
\$	0.062	\$	0.064
\$	0.055	\$	0.053
	2.06%		2.06%
	424,267		423,758
\$	60,183,454	\$	61,338,439
\$	29,890,000	\$	31,820,000
\$	22,322,590	\$	22,774,047
\$	7,970,863	\$	6,744,392
\$	0.142	\$	0.145
\$	0.070	\$	0.075
\$	0.071	\$	0.070
	2.06%		2.06%
	424,267		423,758
\$	60,183,454	\$	61,338,439
\$	28,459,864	\$	29,278,479
\$	22,322,590	\$	22,774,047
\$	9,400,999	\$	9,285,913
\$	0.142	\$	0.145
\$	0.067	\$	0.069
\$	0.075	\$	0.076
	(35,947)		(41,058)
	6,229,638		6,775,935
	1,129,868		1,997,655
	2		2
	5,099,769		4,778,279
	(35,947)		(41,058)
	6,229,638		6,775,935
	(300,269)		(543,866)

2	2
6,529,905	7,319,800

-	-
-	-
1,430,136	2,541,521
-	-
(1,430,136)	(2,541,521)

Comment

2023 sales are estimated by applying 2022 data for remainder of FY2023 data in the Electric Revenues By Class workbook. 2024 sales (kWh) is estimated on CWP "Electric Revenues By Class.xlsx". This sales estimate is escalated by 1% per year after 2024, an escalation rate suggested in the CWP 10-year pro forma for electric
Total revenue from CWP 10-year pro-forma, see CWP Baseline 10yr Budget tab
Total revenue from CWP 10-year pro-forma, see CWP Baseline 10yr Budget tab

From CWP 10-year pro-forma.

Annual rate increase from cell D3 on tab "Revenue-Existing Rates".
Extracted from QTech pIRP.
Sales data from QTech pIRP with \$/kWh extracted from 2022 historical CWP data.
Extracted from QTech pIRP Scenario 3D

Extracted from QTech pIRP.
Calculated 2.19% average annual growth rate
Calculated 3.84% average annual growth rate
Calculated 0.67% average annual growth rate

Annual rate increase from cell D3 on tab "Revenue-Existing Rates".
Extracted from QTech pIRP.
Sales data from QTech pIRP with \$/kWh extracted from 2022 historical CWP data.
2023 Purchased power expense extracted from pIRP then escalated 3% per year.

Extracted from QTech pIRP.
Calculated 2.19% average annual growth rate
Calculated 3% average annual growth rate
Calculated 1.5% average annual growth rate

Annual Rate Change for Res., Commer., Public Authority	0.00%	2.34%
Annual Rate Change for Lighting	0.00%	0.00%

	FY2023	
	(Actual +	
Account Description	Budget)	FY2024

Total Quanta pIRP Consumption (MWh)	424,115	424,921
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Sales by Customer Class

Residential	186,469	186,824
Commercial	211,974	212,377
Public Authority	23,601	23,646
Street Lighting	2,070	2,074
Total Sales	424,115	424,921

Current Rate by Class (\$/kWh)

Residential	\$ 0.125	\$ 0.114
Commercial	\$ 0.125	\$ 0.114
Public Authority	\$ 0.125	\$ 0.114
Street Lighting	\$ 0.125	\$ 0.114

Rate with Increase by Class (\$/kWh)

Residential	\$ 0.125	\$ 0.117
Commercial	\$ 0.125	\$ 0.117
Public Authority	\$ 0.125	\$ 0.117
Street Lighting	\$ 0.125	\$ 0.114

Revenue by Class

Residential	\$ 23,349,612	\$ 21,824,911
Total Commercial (Com., PA, Lighting)(\$)	\$ 26,543,315	\$ 24,810,069
Public Authority	\$ 2,955,278	\$ 2,762,302
Street Lighting	\$ 259,210	\$ 236,747
Total Revenue	\$ 53,107,414	\$ 49,634,029

2.34%	2.34%	2.34%	2.34%	2.34%	2.34%
0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

FY2025	FY2026	FY2027	FY2028	FY2029	FY2030
425,232	425,703	425,714	425,931	425,732	425,797
186,961	187,168	187,173	187,268	187,180	187,209
212,533	212,768	212,774	212,882	212,783	212,815
23,663	23,689	23,690	23,702	23,691	23,694
2,075	2,078	2,078	2,079	2,078	2,078
425,232	425,703	425,714	425,931	425,732	425,797

\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 0.120	\$ 0.122	\$ 0.125	\$ 0.128	\$ 0.131	\$ 0.134
\$ 0.120	\$ 0.122	\$ 0.125	\$ 0.128	\$ 0.131	\$ 0.134
\$ 0.120	\$ 0.122	\$ 0.125	\$ 0.128	\$ 0.131	\$ 0.134
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 22,351,621	\$ 22,899,653	\$ 23,435,779	\$ 23,996,056	\$ 24,545,697	\$ 25,123,568
\$ 25,408,821	\$ 26,031,812	\$ 26,641,268	\$ 27,278,178	\$ 27,902,997	\$ 28,559,908
\$ 2,828,966	\$ 2,898,328	\$ 2,966,184	\$ 3,037,096	\$ 3,106,662	\$ 3,179,802
\$ 236,920	\$ 237,183	\$ 237,189	\$ 237,310	\$ 237,199	\$ 237,235
\$ 50,826,328	\$ 52,066,976	\$ 53,280,420	\$ 54,548,641	\$ 55,792,555	\$ 57,100,513

2.06%	2.06%	2.06%	2.06%	2.06%
0.00%	0.00%	0.00%	0.00%	0.00%

FY2031	FY2032	FY2033	FY2034	FY2035
424,993	424,267	423,758	422,864	422,286
186,856	186,537	186,313	185,920	185,665
212,414	212,051	211,796	211,349	211,060
23,650	23,609	23,581	23,531	23,499
2,074	2,071	2,068	2,064	2,061
424,993	424,267	423,758	422,864	422,286

\$	0.114	\$	0.114	\$	0.114	\$	0.114	\$	0.114
\$	0.114	\$	0.114	\$	0.114	\$	0.114	\$	0.114
\$	0.114	\$	0.114	\$	0.114	\$	0.114	\$	0.114
\$	0.114	\$	0.114	\$	0.114	\$	0.114	\$	0.114
				\$	1.000				

\$	0.137	\$	0.140	\$	0.143	\$	0.146	\$	0.149
\$	0.137	\$	0.140	\$	0.143	\$	0.146	\$	0.149
\$	0.137	\$	0.140	\$	0.143	\$	0.146	\$	0.149
\$	0.114	\$	0.114	\$	0.114	\$	0.114	\$	0.114

\$	25,593,204	\$	26,076,309	\$	26,582,055	\$	27,072,922	\$	27,593,365
\$	29,093,780	\$	29,642,962	\$	30,217,884	\$	30,775,890	\$	31,367,518
\$	3,239,242	\$	3,300,387	\$	3,364,397	\$	3,426,524	\$	3,492,395
\$	236,787	\$	236,383	\$	236,099	\$	235,601	\$	235,279
\$	58,163,013	\$	59,256,040	\$	60,400,435	\$	61,510,937	\$	62,688,556

2.06%	2.06%	2.06%	2.06%	2.06%
0.00%	0.00%	0.00%	0.00%	0.00%

FY2036	FY2037	FY2038	FY2039	FY2040
421,420	420,325	419,068	419,025	420,278
185,285	184,803	184,251	184,232	184,783
210,628	210,080	209,452	209,431	210,057
23,451	23,390	23,320	23,318	23,387
2,057	2,052	2,045	2,045	2,051
421,420	420,325	419,068	419,025	420,278

\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 0.152	\$ 0.155	\$ 0.158	\$ 0.161	\$ 0.165
\$ 0.152	\$ 0.155	\$ 0.158	\$ 0.161	\$ 0.165
\$ 0.152	\$ 0.155	\$ 0.158	\$ 0.161	\$ 0.165
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 28,104,611	\$ 28,609,616	\$ 29,112,201	\$ 29,709,449	\$ 30,412,713
\$ 31,948,691	\$ 32,522,769	\$ 33,094,097	\$ 33,773,035	\$ 34,572,489
\$ 3,557,102	\$ 3,621,018	\$ 3,684,629	\$ 3,760,220	\$ 3,849,230
\$ 234,796	\$ 234,187	\$ 233,486	\$ 233,462	\$ 234,160
\$ 63,845,201	\$ 64,987,590	\$ 66,124,413	\$ 67,476,167	\$ 69,068,592

2.06%	2.06%	2.06%	2.06%	2.06%
0.00%	0.00%	0.00%	0.00%	0.00%

FY2041	FY2042	FY2043	FY2044	FY2045
422,922	426,417	431,547	437,809	446,031
185,945	187,482	189,737	192,490	196,105
211,378	213,125	215,689	218,819	222,928
23,534	23,729	24,014	24,363	24,820
2,064	2,081	2,106	2,137	2,177
422,922	426,417	431,547	437,809	446,031

\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 0.168	\$ 0.171	\$ 0.175	\$ 0.179	\$ 0.182
\$ 0.168	\$ 0.171	\$ 0.175	\$ 0.179	\$ 0.182
\$ 0.168	\$ 0.171	\$ 0.175	\$ 0.179	\$ 0.182
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 31,235,069	\$ 32,142,617	\$ 33,199,989	\$ 34,376,250	\$ 35,744,007
\$ 35,507,325	\$ 36,539,005	\$ 37,741,002	\$ 39,078,149	\$ 40,632,985
\$ 3,953,313	\$ 4,068,178	\$ 4,202,006	\$ 4,350,881	\$ 4,523,993
\$ 235,633	\$ 237,581	\$ 240,438	\$ 243,927	\$ 248,509
\$ 70,931,340	\$ 72,987,381	\$ 75,383,435	\$ 78,049,207	\$ 81,149,493

2.06%	2.06%	2.06%	2.06%	2.06%
0.00%	0.00%	0.00%	0.00%	0.00%

FY2046	FY2047	FY2048	FY2049	FY2050
445,257	444,555	444,061	443,573	444,391
195,765	195,456	195,239	195,025	195,384
222,541	222,190	221,944	221,700	222,109
24,777	24,738	24,711	24,684	24,729
2,173	2,170	2,167	2,165	2,169
445,257	444,555	444,061	443,573	444,391

\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 0.186	\$ 0.190	\$ 0.194	\$ 0.198	\$ 0.202
\$ 0.186	\$ 0.190	\$ 0.194	\$ 0.198	\$ 0.202
\$ 0.186	\$ 0.190	\$ 0.194	\$ 0.198	\$ 0.117
\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114	\$ 0.114

\$ 36,417,754	\$ 37,110,043	\$ 37,833,202	\$ 38,570,893	\$ 39,438,796
\$ 41,398,885	\$ 42,185,864	\$ 43,007,935	\$ 43,846,526	\$ 44,833,138
\$ 4,609,267	\$ 4,696,887	\$ 4,788,415	\$ 4,881,782	\$ 2,881,066
\$ 248,077	\$ 247,686	\$ 247,411	\$ 247,139	\$ 247,595
\$ 82,673,983	\$ 84,240,480	\$ 85,876,964	\$ 87,546,340	\$ 87,400,595

Comment

Sales numbers extracted from Qtech IRP report (WB: "Response to MM email request.xlsx")

Allocation total sales to sales by class based on historic sales by class
Allocation total sales to sales by class based on historic sales by class
Allocation total sales to sales by class based on historic sales by class
Allocation total sales to sales by class based on historic sales by class
Check sum against sale from Q Tech report projections

Average system rate from first year (2024) of CWP Baseline 10 yr Budget'
Average system rate from first year (2024) of CWP Baseline 10 yr Budget'
Average system rate from first year (2024) of CWP Baseline 10 yr Budget'
Average system rate from first year (2024) of CWP Baseline 10 yr Budget'

Increased rate based on 1st year (2024) of CWP Baseline 10 yr Budget time rate increase
Increased rate based on 1st year (2024) of CWP Baseline 10 yr Budget time rate increase
Increased rate based on 1st year (2024) of CWP Baseline 10 yr Budget time rate increase
Increased rate based on 1st year (2024) of CWP Baseline 10 yr Budget time rate increase

Sales time increased rate
Sales time increased rate
Sales time increased rate
Sales time increased rate

	FY 2023	FY 2024	FY 2025	FY 2026
Sales (kWh)				
Residential	186,177,997	192,000,000	193,920,000	195,859,200
Commercial	215,680,053	207,853,096	209,931,627	212,030,944
Public Authority	23,234,736	23,146,904	23,378,373	23,612,156
Street Lighting	2,112,656	2,000,000	2,020,000	2,040,200
Total	427,205,442	425,000,000	429,250,000	433,542,500
 Avg Retail Rate	 \$ 0.125	 \$ 0.114	 \$ 0.114	 \$ 0.114
 Electric Sales:				
Fuel	\$ 18,905,305	\$ 13,437,320	\$ 13,571,693	\$ 13,707,410
Non-Fuel	\$ 34,589,140	\$ 35,076,934	\$ 35,481,252	\$ 35,891,220
Total Retail Rates	\$ 53,494,445	\$ 48,514,254	\$ 49,052,945	\$ 49,598,630
 Intergovernmental Revenues	 \$ -	 \$ -	 \$ -	 \$ -
Other Operating Revenues	\$ 748,000	\$ 764,537	\$ 749,813	\$ 738,636
Investment Earnings	\$ (200,000)	\$ 29,588	\$ 58,985	\$ 55,895
Transfers in	\$ 166,590	\$ 177,527	\$ 187,180	\$ 195,027
Total Inflows	\$ 54,209,035	\$ 49,485,906	\$ 50,048,923	\$ 50,588,188
 General and Administrative	 \$ 2,362,723	 \$ 2,712,088	 \$ 2,844,235	 \$ 2,953,616
Operating Expenses	\$ 6,420,378	\$ 6,582,666	\$ 6,804,309	\$ 6,985,485
Purchased Power	\$ 27,274,436	\$ 22,505,275	\$ 23,116,081	\$ 23,767,267
Routine Capital	\$ 2,258,211	\$ 2,278,222	\$ 2,363,633	\$ 2,451,354
Principal on Debt	\$ 3,125,000	\$ 3,225,000	\$ 3,340,000	\$ 3,465,000
Interest on Debt	\$ 1,600,917	\$ 1,483,690	\$ 1,341,553	\$ 1,215,733
Total Outflows	\$ 43,041,665	\$ 38,786,941	\$ 39,809,811	\$ 40,838,455
 Available Funds	 \$ 11,167,370	 \$ 10,698,965	 \$ 10,239,112	 \$ 9,749,732
 Operating Transfers Out	 \$ 3,151,141	 \$ 2,937,365	 \$ 2,990,405	 \$ 3,034,160
Other Capital Projects	\$ 500,000	\$ -	\$ 650,000	\$ 500,000
Undergrounding Power Lines	\$ 7,392,000	\$ 7,761,600	\$ 8,149,680	\$ 8,557,164
Reserves Surplus/Deficit	\$ 124,229	\$ -	\$ (1,550,973)	\$ (2,341,592)
 Est. Working Capital	 	 \$ 10,823,127	 \$ 9,272,154	 \$ 6,930,562
No. of Days of Working Capital		124	103	75
Bonds Outstanding		\$ 43,670,000	\$ 40,330,000	\$ 36,865,000
Debt Service Coverage		3.72	3.65	3.56

*Currently Covanta supplies 10 MWh of power to the city and this scenario assumes that the agreeer

Plant Assets	161,544,232	172,057,544	183,066,062
Accumulated Depreciation	(61,110,748)	(66,495,555)	(72,230,807)
Plant Assets, Net of Depreciation	100433484	105561988.9	110835255.7

FY 2027	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032	FY 2033
197,817,792	199,795,970	201,793,930	203,811,869	205,849,988	207,908,487	209,987,572
214,151,253	216,292,766	218,455,693	220,640,250	222,846,653	225,075,119	227,325,870
23,848,278	24,086,761	24,327,628	24,570,905	24,816,614	25,064,780	25,315,428
2,060,602	2,081,208	2,102,020	2,123,040	2,144,271	2,165,713	2,187,371
437,877,925	442,256,704	446,679,271	451,146,064	455,657,525	460,214,100	464,816,241
\$ 0.115	\$ 0.115	\$ 0.115	\$ 0.115	\$ 0.115	\$ 0.115	\$ 0.115
\$ 13,844,484	\$ 13,982,929	\$ 14,122,758	\$ 14,263,986	\$ 14,406,626	\$ 14,550,692	\$ 14,696,199
\$ 36,306,942	\$ 36,728,526	\$ 37,156,080	\$ 37,589,719	\$ 38,029,556	\$ 38,475,710	\$ 38,928,301
\$ 50,151,426	\$ 50,711,455	\$ 51,278,839	\$ 51,853,705	\$ 52,436,182	\$ 53,026,402	\$ 53,624,500
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 730,409	\$ 724,644	\$ 720,937	\$ 718,957	\$ 718,433	\$ 695,763	\$ 701,636
\$ 52,712	\$ 33,236	\$ 15,280	\$ (1,318)	\$ (4,900)	\$ (8,590)	\$ (12,390)
\$ 202,191	\$ 209,366	\$ 216,634	\$ 224,194	\$ 232,057	\$ 240,241	\$ 248,759
\$ 51,136,739	\$ 51,678,700	\$ 52,231,690	\$ 52,795,537	\$ 53,381,772	\$ 53,953,815	\$ 54,562,504
\$ 3,051,668	\$ 3,153,326	\$ 3,258,744	\$ 3,368,085	\$ 3,481,519	\$ 3,599,226	\$ 3,721,396
\$ 7,172,332	\$ 7,359,701	\$ 7,499,027	\$ 7,494,433	\$ 7,646,146	\$ 7,854,404	\$ 8,069,455
\$ 24,462,577	\$ 25,206,127	\$ 26,002,438	\$ 26,856,478	\$ 27,773,709	\$ 28,760,132	\$ 29,822,345
\$ 2,541,387	\$ 2,635,696	\$ 2,699,767	\$ 2,765,760	\$ 2,833,732	\$ 2,903,744	\$ 2,975,857
\$ 3,590,000	\$ 3,680,000	\$ 3,795,000	\$ 3,860,000	\$ 3,935,000	\$ 3,690,000	\$ 3,815,000
\$ 1,098,556	\$ 991,114	\$ 879,949	\$ 761,325	\$ 636,465	\$ 514,384	\$ 394,197
\$ 41,916,521	\$ 43,025,964	\$ 44,134,924	\$ 45,106,080	\$ 46,306,571	\$ 47,321,891	\$ 48,798,249
\$ 9,220,218	\$ 8,652,735	\$ 8,096,766	\$ 7,689,457	\$ 7,075,200	\$ 6,631,924	\$ 5,764,255
\$ 3,062,826	\$ 3,116,749	\$ 3,152,033	\$ 3,187,803	\$ 3,224,097	\$ 3,260,832	\$ 3,298,143
\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
\$ 8,985,022	\$ 9,434,273	\$ 9,905,987	\$ 10,401,286	\$ -	\$ -	\$ -
\$ (3,327,631)	\$ (4,398,287)	\$ (5,461,254)	\$ (6,399,632)	\$ 3,351,103	\$ 2,871,093	\$ 1,966,112
\$ 3,602,931	\$ (795,356)	\$ (6,256,610)	\$ (12,656,242)	\$ (9,305,139)	\$ (6,434,046)	\$ (4,467,935)
38	(8)	(62)	(122)	(87)	(58)	(39)
\$ 33,275,000	\$ 29,595,000	\$ 25,800,000	\$ 21,940,000	\$ 18,005,000	\$ 14,315,000	\$ 10,500,000
3.47	3.37	3.26	3.21	3.12	3.21	3.02

ment would be renewed at current pricing in FY24.

194,592,472	206,662,441	219,268,194	232,435,240	235,268,973	238,172,717	241,148,574
(78,333,009)	(84,819,425)	(91,708,173)	(99,017,112)	(106,764,954)	(114,607,253)	(122,546,343)
116259463	121843016.3	127560021.8	133418127.9	128504018.8	123565464.1	118602230.1

2024 to 2033**Avg %****Comment**

2023 data from

1.00% 2024 sales (kWh) from CWP "Electric Revenues By Class.xlsx". This sales estimate is

1.00%

1.00%

1.00%

1.00%

0.12%

1.00%

1.16%

1.12%

-0.95%

-190.78%

3.82%

1.09%

3.58%

2.29%

3.18%

3.01%

1.88%

-13.69%

-6.64%

1.30%

escalated by 1% per year, an escalation rate suggested in the CWP 10-year pro forma for electric demand growth

1.

Account Description	FY2023		FY2024	FY2025	FY2026
	(Actual +	Budget)			
Other Revenues Annual Escalation				3%	3%
Attachment fees annual De-escalation				80%	80%
MISC SERVICE CHARGES	\$ (1,000)	\$ (8,000)	\$ (8,240)	\$ (8,487)	
OTH CHG PHYS-EL CONNECT FEES	\$ (6,000)	\$ (5,000)	\$ (5,150)	\$ (5,305)	
OTH CHG PHYS-TURN ON/OFF CHRGE	\$ (80,000)	\$ (80,000)	\$ (82,400)	\$ (84,872)	
OTH CHG PHYS-POLE ATTACH FEES	\$ (100,000)	\$ (110,000)	\$ (90,640)	\$ (74,687)	
OTH CHG PHYS-EQUIPMENT RENTAL	\$ (72,000)	\$ (70,000)	\$ (72,100)	\$ (74,263)	
OTH CHG PHYS-TEMP POLE SERVICE	\$ (10,000)	\$ (7,000)	\$ (7,210)	\$ (7,426)	
OTH CHG PHYS-SURGE&WIRE PROTEC	\$ (60,000)	\$ (60,000)	\$ (61,800)	\$ (63,654)	
OTH CHG PHYS-CONT IN AID CONST	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	
OTH CHG PHYS-CONT FOR PLUGIN	\$ -	\$ -	\$ -	\$ -	
OTH CHG PHYS-RES U/G SVC DROPS	\$ -	\$ -	\$ -	\$ -	
OTH CHG PHYS-BAD DEBT EXPENSE	\$ 150,000	\$ 172,463	\$ 177,637	\$ 182,966	
OTH CHG PHYS-DEMO DISCONNECT	\$ (24,000)	\$ (22,000)	\$ (22,660)	\$ (23,340)	
SALE OF SURPLUS MATERIALS	\$ (25,000)	\$ (40,000)	\$ (41,200)	\$ (42,436)	
INSURANCE SETTLEMENTS	\$ -	\$ -	\$ -	\$ -	
THIRD PARTY SETTLEMENTS	\$ -	\$ -	\$ -	\$ -	
OTHER MISCELLANEOUS REVENUES	\$ (20,000)	\$ (35,000)	\$ (36,050)	\$ (37,132)	

	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032	FY2033
	3%	3%	3%	3%	3%	3%	3%
	80%	80%	80%	80%	80%	0%	0%
\$	(8,742)	\$ (9,004)	\$ (9,274)	\$ (9,552)	\$ (9,839)	\$ (10,134)	\$ (10,438)
\$	(5,464)	\$ (5,628)	\$ (5,796)	\$ (5,970)	\$ (6,149)	\$ (6,334)	\$ (6,524)
\$	(87,418)	\$ (90,041)	\$ (92,742)	\$ (95,524)	\$ (98,390)	\$ (101,342)	\$ (104,382)
\$	(61,542)	\$ (50,711)	\$ (41,786)	\$ (34,432)	\$ (28,372)	\$ -	\$ -
\$	(76,491)	\$ (78,786)	\$ (81,149)	\$ (83,584)	\$ (86,091)	\$ (88,674)	\$ (91,334)
\$	(7,649)	\$ (7,879)	\$ (8,115)	\$ (8,358)	\$ (8,609)	\$ (8,867)	\$ (9,133)
\$	(65,564)	\$ (67,531)	\$ (69,556)	\$ (71,643)	\$ (73,792)	\$ (76,006)	\$ (78,286)
\$	(500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	188,455	\$ 194,109	\$ 199,932	\$ 205,930	\$ 212,108	\$ 218,471	\$ 225,025
\$	(24,040)	\$ (24,761)	\$ (25,504)	\$ (26,269)	\$ (27,057)	\$ (27,869)	\$ (28,705)
\$	(43,709)	\$ (45,020)	\$ (46,371)	\$ (47,762)	\$ (49,195)	\$ (50,671)	\$ (52,191)
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	(38,245)	\$ (39,393)	\$ (40,575)	\$ (41,792)	\$ (43,046)	\$ (44,337)	\$ (45,667)

FY2034	FY2035	FY2036	FY2037	FY2038	FY2039	FY2040
3%	3%	3%	3%	3%	3%	3%
0%	0%	0%	0%	0%	0%	0%
\$ (10,751)	\$ (11,074)	\$ (11,406)	\$ (11,748)	\$ (12,101)	\$ (12,464)	\$ (12,838)
\$ (6,720)	\$ (6,921)	\$ (7,129)	\$ (7,343)	\$ (7,563)	\$ (7,790)	\$ (8,024)
\$ (107,513)	\$ (110,739)	\$ (114,061)	\$ (117,483)	\$ (121,007)	\$ (124,637)	\$ (128,377)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ (94,074)	\$ (96,896)	\$ (99,803)	\$ (102,797)	\$ (105,881)	\$ (109,058)	\$ (112,329)
\$ (9,407)	\$ (9,690)	\$ (9,980)	\$ (10,280)	\$ (10,588)	\$ (10,906)	\$ (11,233)
\$ (80,635)	\$ (83,054)	\$ (85,546)	\$ (88,112)	\$ (90,755)	\$ (93,478)	\$ (96,282)
\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 231,776	\$ 238,729	\$ 245,891	\$ 253,268	\$ 260,866	\$ 268,692	\$ 276,752
\$ (29,566)	\$ (30,453)	\$ (31,367)	\$ (32,308)	\$ (33,277)	\$ (34,275)	\$ (35,304)
\$ (53,757)	\$ (55,369)	\$ (57,030)	\$ (58,741)	\$ (60,504)	\$ (62,319)	\$ (64,188)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ (47,037)	\$ (48,448)	\$ (49,902)	\$ (51,399)	\$ (52,941)	\$ (54,529)	\$ (56,165)

FY2041	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047
3%	3%	3%	3%	3%	3%	3%
0%	0%	0%	0%	0%	0%	0%
\$ (13,223)	\$ (13,619)	\$ (14,028)	\$ (14,449)	\$ (14,882)	\$ (15,329)	\$ (15,789)
\$ (8,264)	\$ (8,512)	\$ (8,768)	\$ (9,031)	\$ (9,301)	\$ (9,581)	\$ (9,868)
\$ (132,228)	\$ (136,195)	\$ (140,280)	\$ (144,489)	\$ (148,824)	\$ (153,288)	\$ (157,887)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ (115,699)	\$ (119,170)	\$ (122,745)	\$ (126,428)	\$ (130,221)	\$ (134,127)	\$ (138,151)
\$ (11,570)	\$ (11,917)	\$ (12,275)	\$ (12,643)	\$ (13,022)	\$ (13,413)	\$ (13,815)
\$ (99,171)	\$ (102,146)	\$ (105,210)	\$ (108,367)	\$ (111,618)	\$ (114,966)	\$ (118,415)
\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)	\$ (500,000)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 285,055	\$ 293,607	\$ 302,415	\$ 311,487	\$ 320,832	\$ 330,457	\$ 340,371
\$ (36,363)	\$ (37,454)	\$ (38,577)	\$ (39,734)	\$ (40,926)	\$ (42,154)	\$ (43,419)
\$ (66,114)	\$ (68,097)	\$ (70,140)	\$ (72,244)	\$ (74,412)	\$ (76,644)	\$ (78,943)
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ (57,850)	\$ (59,585)	\$ (61,373)	\$ (63,214)	\$ (65,110)	\$ (67,064)	\$ (69,076)

	FY2048	FY2049	FY2050
	3%	3%	3%
	0%	0%	0%
\$	(16,262)	\$ (16,750)	\$ (17,253)
\$	(10,164)	\$ (10,469)	\$ (10,783)
\$	(162,624)	\$ (167,502)	\$ (172,527)
\$	-	\$ -	\$ -
\$	(142,296)	\$ (146,564)	\$ (150,961)
\$	(14,230)	\$ (14,656)	\$ (15,096)
\$	(121,968)	\$ (125,627)	\$ (129,395)
\$	(500,000)	\$ (500,000)	\$ (500,000)
\$	-	\$ -	\$ -
\$	-	\$ -	\$ -
\$	350,582	\$ 361,099	\$ 371,932
\$	(44,721)	\$ (46,063)	\$ (47,445)
\$	(81,312)	\$ (83,751)	\$ (86,264)
\$	-	\$ -	\$ -
\$	-	\$ -	\$ -
\$	(71,148)	\$ (73,282)	\$ (75,481)

Comment

Annual escalation rate from CWP 10-year pro-forma calculation sheet. Continued at 3% increase to 2050
Decreases attachment fee revenue as this service will be eliminated with undergrounding.

All accounts are from CWP 10-year pro-forma. Forecast is extended using 3% annual increase.

Account Description	FY2023 (Actual + Budget)		FY2024		FY2025
Investment earnings annual % change					25%
Annual Escalation of Cust Deposits			3%		3%
INT-CHECKING AND SAVINGS	\$	-	\$	-	\$ -
INT-MONEY MARKET	\$	-	\$	-	\$ -
INT-INVESTMENT PORTFOLIO EARNG	\$	-	\$	(129,588)	\$ (161,985)
INT-INT PAID ON CUST DEPOSITS	\$	200,000	\$	100,000	\$ 103,000
INT-SEACOAST SRB ACCOUNT	\$	-	\$	-	\$ -

	FY2026		FY2027		FY2028		FY2029		FY2030		FY2031	
	0%		0%		-10%		-10%		-10%		0%	
	3%		3%		3%		3%		3%		3%	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
\$	(161,985)	\$	(161,985)	\$	(145,787)	\$	(131,208)	\$	(118,087)	\$	(118,087)	
\$	106,090	\$	109,273	\$	112,551	\$	115,927	\$	119,405	\$	122,987	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	

FY2032			FY2033			FY2034			FY2035			FY2036			FY2037		
0%			0%			0%			0%			0%			0%		
3%			3%			3%			3%			3%			3%		
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)		
\$	126,677	\$	130,477	\$	134,392	\$	138,423	\$	142,576	\$	146,853						
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		

FY2038			FY2039			FY2040			FY2041			FY2042			FY2043		
0%			0%			0%			0%			0%			0%		
3%			3%			3%			3%			3%			3%		
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		
\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)		
\$	151,259	\$	155,797	\$	160,471	\$	165,285	\$	170,243	\$	175,351						
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-		

	FY2044		FY2045		FY2046		FY2047		FY2048		FY2049	
	0%		0%		0%		0%		0%		0%	
	3%		3%		3%		3%		3%		3%	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	
\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	\$	(118,087)	
\$	180,611	\$	186,029	\$	191,610	\$	197,359	\$	203,279	\$	209,378	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	

FY2050	Comments
	0% Investment earnings % change adopted from CWP 10-year proforma calculation sheet. % 3% Customer deposit escalation is from CWP 10-year pro-forma calculation sheet, "Other Re
\$	-
\$	-
\$	(118,087)
\$	215,659
\$	-

change goes to zero in 2031 and is assumed to remain at zero through 2050.
venues".

		FY2023 (Actual + Budget)		FY2024	FY2025
Account Description					
Annual % Change				6.565%	5.437%
TRANSFER FROM ELEC ACQ FUND	\$	-	\$	-	\$
TRANSFER FROM ELEC BOND FUND	\$	-	\$	-	\$
CONTRIBUTION FROM W&S OPS	\$	(166,590)	\$	(177,527)	\$
CONTRIBUTION FROM ELECTRIC ACQ	\$	-	\$	-	\$

	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
	4.192%	3.674%	3.548%	3.472%	3.489%	3.508%
\$	-	\$	-	\$	-	\$
\$	-	\$	-	\$	-	\$
\$	(195,027)	\$	(202,191)	\$	(224,194)	\$
\$	-	\$	-	\$	-	\$

	FY2032		FY2033		FY2034		FY2035		FY2036		FY2037
	3.526%		3.546%		3.546%		3.546%		3.546%		3.546%
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	(240,241)	\$	(248,759)	\$	(257,579)	\$	(266,711)	\$	(276,168)	\$	(285,960)
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

	FY2038		FY2039		FY2040		FY2041		FY2042		FY2043
	3.546%		3.546%		3.546%		3.546%		3.546%		3.546%
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	(296,099)	\$	(306,597)	\$	(317,468)	\$	(328,724)	\$	(340,379)	\$	(352,448)
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

	FY2044		FY2045		FY2046		FY2047		FY2048		FY2049
	3.546%		3.546%		3.546%		3.546%		3.546%		3.546%
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	(364,944)	\$	(377,884)	\$	(391,282)	\$	(405,156)	\$	(419,521)	\$	(434,395)
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

FY2050

3.546%

\$	-
\$	-
\$	(449,797)
\$	-

Comments

%change between 2032 and 2033 is used to calculate Contribution from W&S Ops. No information is given about

Increased annually by % change between the last two forecast years of the CSP pro-forma.

: annual escalation in the CWP 10-year pro-forma calculation sheet.

Account Description	FY2023 (Actual + Budget)		FY2024
Projected Personnel Cost Annual Escalation			
Health/dental Insurance Annual Escalation			
General Other Operating Expense Annual Escalation			
Alt Fuel Pass Through Change			
REGULAR SALARIES AND WAGES	\$	777,215	\$ 948,615
OTHER WAGES - PART TIME/TEMP	\$	-	\$ 27,015
OVERTIME WAGES	\$	5,000	\$ 6,000
FICA TAXES	\$	59,457	\$ 74,068
RETIREMENT CONTRIBUTIONS - 401	\$	54,405	\$ 65,883
RETIREMENT CONTRIBUTIONS - 457	\$	7,593	\$ 14,518
EMPLOYEE INS - HEALTH & DENTAL	\$	99,200	\$ 118,800
EMPLOYEE INS - LIFE	\$	1,554	\$ 1,882
EMPLOYEE INS - AD&D	\$	184	\$ 201
EMPLOYEE INS - DISABILITY	\$	1,865	\$ 2,259
WORKERS COMPENSATION	\$	8,200	\$ 13,312
UNEMPLOYMENT COMPENSATION	\$	728	\$ 819
PROF SVCS - CITY ATTORNEY	\$	50,000	\$ 45,000
PROF SVCS - OTHER LEGAL SVCS	\$	-	\$ -
ACCOUNTING AND AUDITING	\$	25,000	\$ 21,333
OTHER SERVICES - CONTRACTUAL	\$	170,000	\$ 90,000
TRAVEL AND PER DIEM	\$	6,500	\$ 6,500
COMM SERVICES - EQUIP CHARGES	\$	2,873	\$ 2,899
COMM SERVICES - AIRCARDS	\$	-	\$ -
COMM SERVICES - MOBILE DEVICES	\$	3,500	\$ 3,700
FREIGHT & POSTAGE SERVICES	\$	-	\$ -
RENTALS - COPIER	\$	740	\$ 740
INSURANCE - GENERAL LIABILITY	\$	39,425	\$ 36,279
INSURANCE - RISK MGMT OPS	\$	13,229	\$ 10,703
REPAIR & MAINT - CONTRACTS	\$	55,000	\$ 55,000
PRINTING AND BINDING	\$	-	\$ -
PRINTING - COPIER	\$	471	\$ 471
PROMOTIONAL ACTIVITIES	\$	-	\$ -
OTHER - REFUND UG FEE	\$	-	\$ -
OTHER - REGULATORY ASSESS FEE	\$	25,000	\$ 26,000
OTHER - CURRENT CHARGES	\$	-	\$ -
OPERATING SUPPLIES - GENERAL	\$	12,000	\$ 10,000
OPERATING SUPPLIES - UNIFORMS	\$	1,500	\$ 1,500
OPERATING EQUIP UNDER \$5000	\$	3,000	\$ 3,000
BOOKS & PERIODICALS	\$	-	\$ -
PUBLICATIONS AND MEMBERSHIPS	\$	70,594	\$ 70,594
TRAINING - EDUCATIONAL COSTS	\$	6,000	\$ 6,000
TRAINING - EMPLOYEE DEVELOPMNT	\$	-	\$ -
CAPITAL OUTLAY - MACH & EQUIP	\$	-	\$ -

CAPITAL OUTLAY - SOFTWARE	\$	-	\$	-
REGULAR SALARIES AND WAGES	\$	233,825	\$	313,473
TEMPORARY SUPERVISOR WAGES	\$	-	\$	-
OTHER WAGES - PART TIME/TEMP	\$	38,390	\$	20,152
OVERTIME WAGES	\$	-	\$	8,000
FICA TAXES	\$	20,824	\$	24,606
RETIREMENT CONTRIBUTIONS - 401	\$	17,697	\$	18,606
RETIREMENT CONTRIBUTIONS - 457	\$	1,204	\$	1,412
EMPLOYEE INS - HEALTH & DENTAL	\$	59,520	\$	84,480
EMPLOYEE INS - LIFE	\$	506	\$	577
EMPLOYEE INS - AD&D	\$	55	\$	69
EMPLOYEE INS - DISABILITY	\$	607	\$	692
WORKERS COMPENSATION	\$	1,100	\$	1,468
UNEMPLOYMENT COMPENSATION	\$	546	\$	619
OTHER SERVICES - CONTRACTUAL	\$	1,000	\$	33,000
OTHER SERVICES - CR CARD FEES	\$	345,000	\$	380,000
CONTRACTUAL SERV - PRINT BILLS	\$	20,000	\$	22,000
CONTRACTUAL SERV - SURGE&WIRE	\$	45,000	\$	45,000
TRAVEL AND PER DIEM	\$	500	\$	1,492
COMM SERVICES - EQUIP CHARGES	\$	-	\$	-
COMM SERVICES - MOBILE DEVICES	\$	-	\$	-
COMM SERVICES - LONG DISTANCE	\$	-	\$	-
FREIGHT & POSTAGE SERVICES	\$	45,000	\$	50,000
RENTALS - OTHER	\$	700	\$	700
RENTALS - EQUIP REPLACEMENT FD	\$	-	\$	-
RENTALS - COPIER	\$	605	\$	605
INSURANCE - GENERAL LIABILITY	\$	10,047	\$	12,504
INSURANCE - RISK MGMT OPS	\$	3,371	\$	3,689
REPAIR & MAINT - NON IBM	\$	3,480	\$	3,480
REPAIR & MAINT - EQUIPMENT	\$	3,100	\$	3,900
REPAIR & MAINT - VEHICLE	\$	-	\$	-
REPAIR & MAINT - FLEET MAINT	\$	-	\$	-
PRINTING AND BINDING	\$	500	\$	500
PRINTING - COPIER	\$	563	\$	563
PROMOTIONAL ACTIVITIES	\$	250	\$	250
OFFICE SUPPLIES	\$	1,000	\$	800
OPERATING SUPPLIES - GENERAL	\$	1,500	\$	3,000
OPERATING SUPPLIES - FUEL	\$	-	\$	-
OPERATING SUPPLIES - UNIFORMS	\$	500	\$	410
OPERATING EQUIP UNDER \$5000	\$	5,600	\$	10,200
PUBLICATIONS AND MEMBERSHIPS	\$	-	\$	-
TRAINING - EDUCATIONAL COSTS	\$	500	\$	1,510
CAPITAL OUTLAY - FURN & FIX	\$	-	\$	1,240
CAPITAL OUTLAY - MACH & EQUIP	\$	-	\$	-
CAPITAL OUTLAY - SOFTWARE	\$	-	\$	-

FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031
5.00%	3.50%	3.00%	3.00%	3.00%	3.00%	3.00%
8.00%	8.00%	7.00%	7.00%	7.00%	7.00%	7.00%
4.00%	3.50%	3.00%	3.00%	3.00%	3.00%	3.00%
-10%	5%	2%	3%	3%	3%	3%
\$ 996,046	\$ 1,030,907	\$ 1,061,835	\$ 1,093,690	\$ 1,126,500	\$ 1,160,295	\$ 1,195,104
\$ 28,366	\$ 29,359	\$ 30,239	\$ 31,146	\$ 32,081	\$ 33,043	\$ 34,035
\$ 6,300	\$ 6,521	\$ 6,716	\$ 6,918	\$ 7,125	\$ 7,339	\$ 7,559
\$ 77,771	\$ 80,493	\$ 82,908	\$ 85,395	\$ 87,957	\$ 90,596	\$ 93,314
\$ 69,177	\$ 71,598	\$ 73,746	\$ 75,959	\$ 78,237	\$ 80,585	\$ 83,002
\$ 15,244	\$ 15,777	\$ 16,251	\$ 16,738	\$ 17,240	\$ 17,758	\$ 18,290
\$ 128,304	\$ 138,568	\$ 148,268	\$ 158,647	\$ 169,752	\$ 181,635	\$ 194,349
\$ 1,976	\$ 2,045	\$ 2,107	\$ 2,170	\$ 2,235	\$ 2,302	\$ 2,371
\$ 211	\$ 218	\$ 225	\$ 232	\$ 239	\$ 246	\$ 253
\$ 2,372	\$ 2,455	\$ 2,529	\$ 2,604	\$ 2,683	\$ 2,763	\$ 2,846
\$ 13,978	\$ 14,467	\$ 14,901	\$ 15,348	\$ 15,808	\$ 16,283	\$ 16,771
\$ 860	\$ 890	\$ 917	\$ 944	\$ 973	\$ 1,002	\$ 1,032
\$ 46,800	\$ 48,438	\$ 49,891	\$ 51,388	\$ 52,930	\$ 54,517	\$ 56,153
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 22,186	\$ 22,963	\$ 23,652	\$ 24,361	\$ 25,092	\$ 25,845	\$ 26,620
\$ 93,600	\$ 96,876	\$ 99,782	\$ 102,776	\$ 105,859	\$ 109,035	\$ 112,306
\$ 6,760	\$ 6,997	\$ 7,206	\$ 7,423	\$ 7,645	\$ 7,875	\$ 8,111
\$ 3,015	\$ 3,120	\$ 3,214	\$ 3,311	\$ 3,410	\$ 3,512	\$ 3,617
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 3,848	\$ 3,983	\$ 4,102	\$ 4,225	\$ 4,352	\$ 4,483	\$ 4,617
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 740	\$ 740	\$ 740	\$ 740	\$ 740	\$ 740	\$ 740
\$ 37,730	\$ 39,051	\$ 40,222	\$ 41,429	\$ 42,672	\$ 43,952	\$ 45,270
\$ 11,238	\$ 11,631	\$ 11,980	\$ 12,340	\$ 12,710	\$ 13,091	\$ 13,484
\$ 57,200	\$ 59,202	\$ 60,978	\$ 62,807	\$ 64,692	\$ 66,632	\$ 68,631
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 490	\$ 507	\$ 522	\$ 538	\$ 554	\$ 571	\$ 588
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 27,040	\$ 27,986	\$ 28,826	\$ 29,691	\$ 30,581	\$ 31,499	\$ 32,444
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 10,400	\$ 10,764	\$ 11,087	\$ 11,420	\$ 11,762	\$ 12,115	\$ 12,478
\$ 1,560	\$ 1,615	\$ 1,663	\$ 1,713	\$ 1,764	\$ 1,817	\$ 1,872
\$ 3,120	\$ 3,229	\$ 3,326	\$ 3,426	\$ 3,529	\$ 3,634	\$ 3,744
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 73,418	\$ 75,987	\$ 78,267	\$ 80,615	\$ 83,033	\$ 85,524	\$ 88,090
\$ 6,240	\$ 6,458	\$ 6,652	\$ 6,852	\$ 7,057	\$ 7,269	\$ 7,487
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 329,147	\$ 340,667	\$ 350,887	\$ 361,413	\$ 372,256	\$ 383,423	\$ 394,926
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 21,160	\$ 21,900	\$ 22,557	\$ 23,234	\$ 23,931	\$ 24,649	\$ 25,388
\$ 8,400	\$ 8,694	\$ 8,955	\$ 9,223	\$ 9,500	\$ 9,785	\$ 10,079
\$ 25,836	\$ 26,741	\$ 27,543	\$ 28,369	\$ 29,220	\$ 30,097	\$ 31,000
\$ 19,536	\$ 20,220	\$ 20,827	\$ 21,451	\$ 22,095	\$ 22,758	\$ 23,441
\$ 1,483	\$ 1,534	\$ 1,581	\$ 1,628	\$ 1,677	\$ 1,727	\$ 1,779
\$ 91,238	\$ 98,537	\$ 105,435	\$ 112,816	\$ 120,713	\$ 129,163	\$ 138,204
\$ 606	\$ 627	\$ 646	\$ 665	\$ 685	\$ 706	\$ 727
\$ 72	\$ 75	\$ 77	\$ 80	\$ 82	\$ 84	\$ 87
\$ 727	\$ 752	\$ 775	\$ 798	\$ 822	\$ 846	\$ 872
\$ 1,541	\$ 1,595	\$ 1,643	\$ 1,693	\$ 1,743	\$ 1,796	\$ 1,849
\$ 650	\$ 673	\$ 693	\$ 714	\$ 735	\$ 757	\$ 780
\$ 34,320	\$ 35,521	\$ 36,587	\$ 37,684	\$ 38,815	\$ 39,979	\$ 41,179
\$ 395,200	\$ 409,032	\$ 421,303	\$ 433,942	\$ 446,960	\$ 460,369	\$ 474,180
\$ 22,880	\$ 23,681	\$ 24,391	\$ 25,123	\$ 25,877	\$ 26,653	\$ 27,453
\$ 46,800	\$ 48,438	\$ 49,891	\$ 51,388	\$ 52,930	\$ 54,517	\$ 56,153
\$ 1,552	\$ 1,606	\$ 1,654	\$ 1,704	\$ 1,755	\$ 1,808	\$ 1,862
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 52,000	\$ 53,820	\$ 55,435	\$ 57,098	\$ 58,811	\$ 60,575	\$ 62,392
\$ 728	\$ 753	\$ 776	\$ 799	\$ 823	\$ 848	\$ 873
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 605	\$ 605	\$ 605	\$ 605	\$ 605	\$ 605	\$ 605
\$ 13,004	\$ 13,459	\$ 13,863	\$ 14,279	\$ 14,707	\$ 15,149	\$ 15,603
\$ 3,873	\$ 4,009	\$ 4,129	\$ 4,253	\$ 4,381	\$ 4,512	\$ 4,648
\$ 3,619	\$ 3,746	\$ 3,858	\$ 3,974	\$ 4,093	\$ 4,216	\$ 4,342
\$ 4,056	\$ 4,198	\$ 4,324	\$ 4,454	\$ 4,587	\$ 4,725	\$ 4,867
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 520	\$ 538	\$ 554	\$ 571	\$ 588	\$ 606	\$ 624
\$ 586	\$ 606	\$ 624	\$ 643	\$ 662	\$ 682	\$ 703
\$ 260	\$ 269	\$ 277	\$ 285	\$ 294	\$ 303	\$ 312
\$ 832	\$ 861	\$ 887	\$ 914	\$ 941	\$ 969	\$ 998
\$ 3,120	\$ 3,229	\$ 3,326	\$ 3,426	\$ 3,529	\$ 3,634	\$ 3,744
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 426	\$ 441	\$ 455	\$ 468	\$ 482	\$ 497	\$ 512
\$ 10,608	\$ 10,979	\$ 11,309	\$ 11,648	\$ 11,997	\$ 12,357	\$ 12,728
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,570	\$ 1,625	\$ 1,674	\$ 1,724	\$ 1,776	\$ 1,829	\$ 1,884
\$ 1,290	\$ 1,335	\$ 1,375	\$ 1,416	\$ 1,459	\$ 1,502	\$ 1,547
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

FY2032	FY2033	FY2034	FY2035	FY2036	FY2037	FY2038
3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
3%	3%	3%	3%	3%	3%	3%
\$ 1,230,957	\$ 1,267,886	\$ 1,305,923	\$ 1,345,100	\$ 1,385,453	\$ 1,427,017	\$ 1,469,827
\$ 35,056	\$ 36,107	\$ 37,191	\$ 38,306	\$ 39,455	\$ 40,639	\$ 41,858
\$ 7,786	\$ 8,019	\$ 8,260	\$ 8,508	\$ 8,763	\$ 9,026	\$ 9,297
\$ 96,113	\$ 98,997	\$ 101,967	\$ 105,026	\$ 108,176	\$ 111,422	\$ 114,764
\$ 85,492	\$ 88,057	\$ 90,699	\$ 93,420	\$ 96,222	\$ 99,109	\$ 102,082
\$ 18,839	\$ 19,404	\$ 19,986	\$ 20,586	\$ 21,204	\$ 21,840	\$ 22,495
\$ 207,954	\$ 222,510	\$ 238,086	\$ 254,752	\$ 272,585	\$ 291,666	\$ 312,082
\$ 2,442	\$ 2,515	\$ 2,591	\$ 2,669	\$ 2,749	\$ 2,831	\$ 2,916
\$ 261	\$ 269	\$ 277	\$ 285	\$ 294	\$ 302	\$ 311
\$ 2,931	\$ 3,019	\$ 3,110	\$ 3,203	\$ 3,299	\$ 3,398	\$ 3,500
\$ 17,274	\$ 17,792	\$ 18,326	\$ 18,876	\$ 19,442	\$ 20,025	\$ 20,626
\$ 1,063	\$ 1,095	\$ 1,127	\$ 1,161	\$ 1,196	\$ 1,232	\$ 1,269
\$ 57,838	\$ 59,573	\$ 61,360	\$ 63,201	\$ 65,097	\$ 67,050	\$ 69,061
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 27,419	\$ 28,241	\$ 29,089	\$ 29,961	\$ 30,860	\$ 31,786	\$ 32,740
\$ 115,675	\$ 119,145	\$ 122,720	\$ 126,401	\$ 130,193	\$ 134,099	\$ 138,122
\$ 8,354	\$ 8,605	\$ 8,863	\$ 9,129	\$ 9,403	\$ 9,685	\$ 9,975
\$ 3,726	\$ 3,838	\$ 3,953	\$ 4,072	\$ 4,194	\$ 4,319	\$ 4,449
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 4,756	\$ 4,898	\$ 5,045	\$ 5,196	\$ 5,352	\$ 5,513	\$ 5,678
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 740	\$ 740	\$ 740	\$ 740	\$ 740	\$ 740	\$ 740
\$ 46,629	\$ 48,027	\$ 49,468	\$ 50,952	\$ 52,481	\$ 54,055	\$ 55,677
\$ 13,889	\$ 14,305	\$ 14,734	\$ 15,176	\$ 15,632	\$ 16,101	\$ 16,584
\$ 70,690	\$ 72,811	\$ 74,995	\$ 77,245	\$ 79,563	\$ 81,949	\$ 84,408
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 605	\$ 624	\$ 642	\$ 661	\$ 681	\$ 702	\$ 723
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 33,417	\$ 34,420	\$ 35,452	\$ 36,516	\$ 37,611	\$ 38,740	\$ 39,902
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 12,853	\$ 13,238	\$ 13,636	\$ 14,045	\$ 14,466	\$ 14,900	\$ 15,347
\$ 1,928	\$ 1,986	\$ 2,045	\$ 2,107	\$ 2,170	\$ 2,235	\$ 2,302
\$ 3,856	\$ 3,972	\$ 4,091	\$ 4,213	\$ 4,340	\$ 4,470	\$ 4,604
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 90,733	\$ 93,455	\$ 96,259	\$ 99,146	\$ 102,121	\$ 105,184	\$ 108,340
\$ 7,712	\$ 7,943	\$ 8,181	\$ 8,427	\$ 8,680	\$ 8,940	\$ 9,208
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
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\$	406,774	\$	418,977	\$	431,546	\$	444,493	\$	457,828	\$	471,562	\$	485,709
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	26,150	\$	26,934	\$	27,743	\$	28,575	\$	29,432	\$	30,315	\$	31,224
\$	10,381	\$	10,693	\$	11,013	\$	11,344	\$	11,684	\$	12,035	\$	12,396
\$	31,930	\$	32,888	\$	33,874	\$	34,890	\$	35,937	\$	37,015	\$	38,126
\$	24,144	\$	24,868	\$	25,614	\$	26,383	\$	27,174	\$	27,989	\$	28,829
\$	1,832	\$	1,887	\$	1,944	\$	2,002	\$	2,062	\$	2,124	\$	2,188
\$	147,878	\$	158,230	\$	169,306	\$	181,157	\$	193,838	\$	207,407	\$	221,925
\$	749	\$	771	\$	794	\$	818	\$	843	\$	868	\$	894
\$	90	\$	92	\$	95	\$	98	\$	101	\$	104	\$	107
\$	898	\$	925	\$	953	\$	981	\$	1,011	\$	1,041	\$	1,072
\$	1,905	\$	1,962	\$	2,021	\$	2,082	\$	2,144	\$	2,208	\$	2,275
\$	803	\$	827	\$	852	\$	878	\$	904	\$	931	\$	959
\$	42,414	\$	43,687	\$	44,997	\$	46,347	\$	47,738	\$	49,170	\$	50,645
\$	488,406	\$	503,058	\$	518,149	\$	533,694	\$	549,705	\$	566,196	\$	583,182
\$	28,276	\$	29,124	\$	29,998	\$	30,898	\$	31,825	\$	32,780	\$	33,763
\$	57,838	\$	59,573	\$	61,360	\$	63,201	\$	65,097	\$	67,050	\$	69,061
\$	1,918	\$	1,975	\$	2,034	\$	2,095	\$	2,158	\$	2,223	\$	2,290
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\$	64,264	\$	66,192	\$	68,178	\$	70,223	\$	72,330	\$	74,499	\$	76,734
\$	900	\$	927	\$	954	\$	983	\$	1,013	\$	1,043	\$	1,074
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	605	\$	605	\$	605	\$	605	\$	605	\$	605	\$	605
\$	16,071	\$	16,553	\$	17,050	\$	17,561	\$	18,088	\$	18,631	\$	19,190
\$	4,787	\$	4,931	\$	5,079	\$	5,231	\$	5,388	\$	5,549	\$	5,716
\$	4,473	\$	4,607	\$	4,745	\$	4,888	\$	5,034	\$	5,185	\$	5,341
\$	5,013	\$	5,163	\$	5,318	\$	5,477	\$	5,642	\$	5,811	\$	5,985
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\$	643	\$	662	\$	682	\$	702	\$	723	\$	745	\$	767
\$	724	\$	745	\$	768	\$	791	\$	814	\$	839	\$	864
\$	321	\$	331	\$	341	\$	351	\$	362	\$	372	\$	384
\$	1,028	\$	1,059	\$	1,091	\$	1,124	\$	1,157	\$	1,192	\$	1,228
\$	3,856	\$	3,972	\$	4,091	\$	4,213	\$	4,340	\$	4,470	\$	4,604
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	527	\$	543	\$	559	\$	576	\$	593	\$	611	\$	629
\$	13,110	\$	13,503	\$	13,908	\$	14,325	\$	14,755	\$	15,198	\$	15,654
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,941	\$	1,999	\$	2,059	\$	2,121	\$	2,184	\$	2,250	\$	2,317
\$	1,594	\$	1,642	\$	1,691	\$	1,742	\$	1,794	\$	1,848	\$	1,903
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	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044	FY2045
	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
	3%	3%	3%	3%	3%	3%	3%
\$	1,513,922	\$ 1,559,340	\$ 1,606,120	\$ 1,654,304	\$ 1,703,933	\$ 1,755,051	\$ 1,807,702
\$	43,114	\$ 44,407	\$ 45,740	\$ 47,112	\$ 48,525	\$ 49,981	\$ 51,480
\$	9,576	\$ 9,863	\$ 10,159	\$ 10,463	\$ 10,777	\$ 11,101	\$ 11,434
\$	118,207	\$ 121,753	\$ 125,406	\$ 129,168	\$ 133,043	\$ 137,035	\$ 141,146
\$	105,145	\$ 108,299	\$ 111,548	\$ 114,894	\$ 118,341	\$ 121,891	\$ 125,548
\$	23,170	\$ 23,865	\$ 24,581	\$ 25,318	\$ 26,078	\$ 26,860	\$ 27,666
\$	333,928	\$ 357,303	\$ 382,314	\$ 409,076	\$ 437,712	\$ 468,352	\$ 501,136
\$	3,004	\$ 3,094	\$ 3,186	\$ 3,282	\$ 3,381	\$ 3,482	\$ 3,586
\$	321	\$ 330	\$ 340	\$ 351	\$ 361	\$ 372	\$ 383
\$	3,605	\$ 3,713	\$ 3,825	\$ 3,940	\$ 4,058	\$ 4,179	\$ 4,305
\$	21,245	\$ 21,882	\$ 22,539	\$ 23,215	\$ 23,911	\$ 24,629	\$ 25,368
\$	1,307	\$ 1,346	\$ 1,387	\$ 1,428	\$ 1,471	\$ 1,515	\$ 1,561
\$	71,133	\$ 73,267	\$ 75,465	\$ 77,729	\$ 80,061	\$ 82,462	\$ 84,936
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	33,722	\$ 34,733	\$ 35,775	\$ 36,849	\$ 37,954	\$ 39,093	\$ 40,265
\$	142,266	\$ 146,534	\$ 150,930	\$ 155,458	\$ 160,121	\$ 164,925	\$ 169,873
\$	10,275	\$ 10,583	\$ 10,900	\$ 11,227	\$ 11,564	\$ 11,911	\$ 12,269
\$	4,583	\$ 4,720	\$ 4,862	\$ 5,007	\$ 5,158	\$ 5,312	\$ 5,472
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	5,849	\$ 6,024	\$ 6,205	\$ 6,391	\$ 6,583	\$ 6,780	\$ 6,984
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	740	\$ 740	\$ 740	\$ 740	\$ 740	\$ 740	\$ 740
\$	57,347	\$ 59,068	\$ 60,840	\$ 62,665	\$ 64,545	\$ 66,481	\$ 68,476
\$	17,081	\$ 17,594	\$ 18,121	\$ 18,665	\$ 19,225	\$ 19,802	\$ 20,396
\$	86,940	\$ 89,548	\$ 92,235	\$ 95,002	\$ 97,852	\$ 100,787	\$ 103,811
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	745	\$ 767	\$ 790	\$ 814	\$ 838	\$ 863	\$ 889
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	41,099	\$ 42,332	\$ 43,602	\$ 44,910	\$ 46,257	\$ 47,645	\$ 49,074
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	15,807	\$ 16,282	\$ 16,770	\$ 17,273	\$ 17,791	\$ 18,325	\$ 18,875
\$	2,371	\$ 2,442	\$ 2,515	\$ 2,591	\$ 2,669	\$ 2,749	\$ 2,831
\$	4,742	\$ 4,884	\$ 5,031	\$ 5,182	\$ 5,337	\$ 5,497	\$ 5,662
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	111,590	\$ 114,938	\$ 118,386	\$ 121,937	\$ 125,596	\$ 129,363	\$ 133,244
\$	9,484	\$ 9,769	\$ 10,062	\$ 10,364	\$ 10,675	\$ 10,995	\$ 11,325
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$	-	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	500,281	\$	515,289	\$	530,748	\$	546,670	\$	563,070	\$	579,962	\$	597,361
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	32,161	\$	33,126	\$	34,120	\$	35,143	\$	36,198	\$	37,284	\$	38,402
\$	12,767	\$	13,150	\$	13,545	\$	13,951	\$	14,370	\$	14,801	\$	15,245
\$	39,269	\$	40,448	\$	41,661	\$	42,911	\$	44,198	\$	45,524	\$	46,890
\$	29,694	\$	30,585	\$	31,502	\$	32,447	\$	33,421	\$	34,423	\$	35,456
\$	2,253	\$	2,321	\$	2,391	\$	2,462	\$	2,536	\$	2,612	\$	2,691
\$	237,460	\$	254,082	\$	271,868	\$	290,899	\$	311,262	\$	333,050	\$	356,363
\$	921	\$	948	\$	977	\$	1,006	\$	1,036	\$	1,068	\$	1,100
\$	110	\$	113	\$	117	\$	120	\$	124	\$	128	\$	131
\$	1,104	\$	1,138	\$	1,172	\$	1,207	\$	1,243	\$	1,280	\$	1,319
\$	2,343	\$	2,413	\$	2,486	\$	2,560	\$	2,637	\$	2,716	\$	2,797
\$	988	\$	1,018	\$	1,048	\$	1,079	\$	1,112	\$	1,145	\$	1,180
\$	52,164	\$	53,729	\$	55,341	\$	57,001	\$	58,711	\$	60,472	\$	62,287
\$	600,677	\$	618,698	\$	637,259	\$	656,376	\$	676,068	\$	696,350	\$	717,240
\$	34,776	\$	35,819	\$	36,894	\$	38,001	\$	39,141	\$	40,315	\$	41,524
\$	71,133	\$	73,267	\$	75,465	\$	77,729	\$	80,061	\$	82,462	\$	84,936
\$	2,358	\$	2,429	\$	2,502	\$	2,577	\$	2,654	\$	2,734	\$	2,816
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
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\$	79,036	\$	81,408	\$	83,850	\$	86,365	\$	88,956	\$	91,625	\$	94,374
\$	1,107	\$	1,140	\$	1,174	\$	1,209	\$	1,245	\$	1,283	\$	1,321
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	605	\$	605	\$	605	\$	605	\$	605	\$	605	\$	605
\$	19,765	\$	20,358	\$	20,969	\$	21,598	\$	22,246	\$	22,914	\$	23,601
\$	5,887	\$	6,064	\$	6,246	\$	6,433	\$	6,626	\$	6,825	\$	7,030
\$	5,501	\$	5,666	\$	5,836	\$	6,011	\$	6,191	\$	6,377	\$	6,568
\$	6,165	\$	6,350	\$	6,540	\$	6,736	\$	6,939	\$	7,147	\$	7,361
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	790	\$	814	\$	838	\$	864	\$	890	\$	916	\$	944
\$	890	\$	917	\$	944	\$	972	\$	1,002	\$	1,032	\$	1,063
\$	395	\$	407	\$	419	\$	432	\$	445	\$	458	\$	472
\$	1,265	\$	1,303	\$	1,342	\$	1,382	\$	1,423	\$	1,466	\$	1,510
\$	4,742	\$	4,884	\$	5,031	\$	5,182	\$	5,337	\$	5,497	\$	5,662
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	648	\$	668	\$	688	\$	708	\$	729	\$	751	\$	774
\$	16,123	\$	16,607	\$	17,105	\$	17,619	\$	18,147	\$	18,691	\$	19,252
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,387	\$	2,459	\$	2,532	\$	2,608	\$	2,686	\$	2,767	\$	2,850
\$	1,960	\$	2,019	\$	2,079	\$	2,142	\$	2,206	\$	2,272	\$	2,340
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FY2046	FY2047	FY2048	FY2049	FY2050
3.00%	3.00%	3.00%	3.00%	3.00%
7.00%	7.00%	7.00%	7.00%	7.00%
3.00%	3.00%	3.00%	3.00%	3.00%
3%	3%	3%	3%	3%
\$ 1,861,933	\$ 1,917,791	\$ 1,975,325	\$ 2,034,585	\$ 2,095,622
\$ 53,025	\$ 54,616	\$ 56,254	\$ 57,942	\$ 59,680
\$ 11,777	\$ 12,130	\$ 12,494	\$ 12,869	\$ 13,255
\$ 145,380	\$ 149,741	\$ 154,234	\$ 158,861	\$ 163,627
\$ 129,315	\$ 133,194	\$ 137,190	\$ 141,306	\$ 145,545
\$ 28,496	\$ 29,351	\$ 30,231	\$ 31,138	\$ 32,072
\$ 536,216	\$ 573,751	\$ 613,913	\$ 656,887	\$ 702,869
\$ 3,694	\$ 3,805	\$ 3,919	\$ 4,037	\$ 4,158
\$ 395	\$ 406	\$ 419	\$ 431	\$ 444
\$ 4,434	\$ 4,567	\$ 4,704	\$ 4,845	\$ 4,990
\$ 26,129	\$ 26,913	\$ 27,720	\$ 28,552	\$ 29,408
\$ 1,608	\$ 1,656	\$ 1,705	\$ 1,757	\$ 1,809
\$ 87,484	\$ 90,109	\$ 92,812	\$ 95,597	\$ 99,420
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 41,473	\$ 42,718	\$ 43,999	\$ 45,319	\$ 46,679
\$ 174,969	\$ 180,218	\$ 185,624	\$ 191,193	\$ 196,929
\$ 12,637	\$ 13,016	\$ 13,406	\$ 13,808	\$ 14,223
\$ 5,636	\$ 5,805	\$ 5,979	\$ 6,159	\$ 6,343
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 7,193	\$ 7,409	\$ 7,631	\$ 7,860	\$ 8,096
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 740	\$ 740	\$ 740	\$ 740	\$ 740
\$ 70,530	\$ 72,646	\$ 74,825	\$ 77,070	\$ 79,382
\$ 21,008	\$ 21,638	\$ 22,287	\$ 22,956	\$ 23,644
\$ 106,925	\$ 110,133	\$ 113,437	\$ 116,840	\$ 120,345
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 916	\$ 943	\$ 971	\$ 1,001	\$ 1,031
\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 50,547	\$ 52,063	\$ 53,625	\$ 55,234	\$ 56,891
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 19,441	\$ 20,024	\$ 20,625	\$ 21,244	\$ 21,881
\$ 2,916	\$ 3,004	\$ 3,094	\$ 3,187	\$ 3,282
\$ 5,832	\$ 6,007	\$ 6,187	\$ 6,373	\$ 6,564
\$ -	\$ -	\$ -	\$ -	\$ -
\$ 137,242	\$ 141,359	\$ 145,600	\$ 149,968	\$ 154,467
\$ 11,665	\$ 12,015	\$ 12,375	\$ 12,746	\$ 13,129
\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -

\$	-	\$	-	\$	-	\$	-	\$	-
\$	615,282	\$	633,741	\$	652,753	\$	672,335	\$	692,505
\$	-	\$	-	\$	-	\$	-	\$	-
\$	39,554	\$	40,741	\$	41,963	\$	43,222	\$	44,519
\$	15,702	\$	16,173	\$	16,659	\$	17,158	\$	17,673
\$	48,296	\$	49,745	\$	51,238	\$	52,775	\$	54,358
\$	36,520	\$	37,615	\$	38,744	\$	39,906	\$	41,103
\$	2,771	\$	2,855	\$	2,940	\$	3,028	\$	3,119
\$	381,309	\$	408,001	\$	436,561	\$	467,120	\$	499,818
\$	1,133	\$	1,167	\$	1,202	\$	1,238	\$	1,275
\$	135	\$	139	\$	144	\$	148	\$	152
\$	1,358	\$	1,399	\$	1,441	\$	1,484	\$	1,529
\$	2,881	\$	2,968	\$	3,057	\$	3,149	\$	3,243
\$	1,215	\$	1,251	\$	1,289	\$	1,328	\$	1,367
\$	64,155	\$	66,080	\$	68,062	\$	70,104	\$	72,207
\$	738,757	\$	760,920	\$	783,748	\$	807,260	\$	831,478
\$	42,770	\$	44,053	\$	45,375	\$	46,736	\$	48,138
\$	87,484	\$	90,109	\$	92,812	\$	95,597	\$	98,464
\$	2,901	\$	2,988	\$	3,077	\$	3,170	\$	3,265
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\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	97,205	\$	100,121	\$	103,125	\$	106,218	\$	109,405
\$	1,361	\$	1,402	\$	1,444	\$	1,487	\$	1,532
\$	-	\$	-	\$	-	\$	-	\$	-
\$	605	\$	605	\$	605	\$	605	\$	605
\$	24,309	\$	25,038	\$	25,789	\$	26,563	\$	27,360
\$	7,241	\$	7,458	\$	7,682	\$	7,912	\$	8,150
\$	6,765	\$	6,968	\$	7,177	\$	7,393	\$	7,615
\$	7,582	\$	7,809	\$	8,044	\$	8,285	\$	8,534
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-
\$	972	\$	1,001	\$	1,031	\$	1,062	\$	1,094
\$	1,095	\$	1,127	\$	1,161	\$	1,196	\$	1,232
\$	486	\$	501	\$	516	\$	531	\$	547
\$	1,555	\$	1,602	\$	1,650	\$	1,699	\$	1,750
\$	5,832	\$	6,007	\$	6,187	\$	6,373	\$	6,564
\$	-	\$	-	\$	-	\$	-	\$	-
\$	797	\$	821	\$	846	\$	871	\$	897
\$	19,830	\$	20,425	\$	21,037	\$	21,669	\$	22,319
\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,936	\$	3,024	\$	3,114	\$	3,208	\$	3,304
\$	2,411	\$	2,483	\$	2,557	\$	2,634	\$	2,713
\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-

Comments

Annual escalation rates are taken from CWP 10-year pro-forma calculation workbook. The rates are projected

Each account line-item is projected using the same methodology used in the CWP 10-year pro-forma.

l out to 2050 based on the last year's value of the original projection rate.

Account Description	FY2023 (Actual + Budget)		FY2024
Projected Personnel Cost Annual Escalation			
Health/dental Insurance Annual Escalation			
General Other Operating Expense Annual Escalation			
Equipment Rental Lines in Budgets Annual Change			
Alt Fuel Pass Through Change			
Annual % change on acct REIMB - ADMIN TO GENERAL FUND			20%
Annual Demand Growth			
WORK ORDER WASH ACCT - EQUIP	\$	-	\$ -
WORK ORDER WASH ACCT - OTHER	\$	-	\$ -
REGULAR SALARIES AND WAGES	\$	627,448	\$ 772,612
TEMPORARY SUPERVISOR WAGES	\$	-	\$ -
OTHER WAGES - PART TIME/TEMP	\$	-	\$ -
OVERTIME WAGES	\$	20,000	\$ 15,000
FICA TAXES	\$	48,000	\$ 59,105
RETIREMENT CONTRIBUTIONS - 401	\$	39,094	\$ 54,083
RETIREMENT CONTRIBUTIONS - 457	\$	-	\$ -
EMPLOYEE INS - HEALTH & DENTAL	\$	91,760	\$ 118,800
EMPLOYEE INS - LIFE	\$	1,255	\$ 1,545
EMPLOYEE INS - AD&D	\$	149	\$ 185
EMPLOYEE INS - DISABILITY	\$	1,506	\$ 1,854
WORKERS COMPENSATION	\$	9,600	\$ 12,079
UNEMPLOYMENT COMPENSATION	\$	673	\$ 819
OTHER SERVICES - CONTRACTUAL	\$	89,000	\$ 36,000
CONTRACTUAL SERV - BULK POWER			
BULK POWER FUEL			
BULK POWER NONFUEL			
CONTRACTUAL SERV - ENCO OT	\$	-	\$ -
CONTRACTUAL SERV - SUBSTATION	\$	275,000	\$ 75,000
CONTRACTUAL SERV - ENCO CALL	\$	35,000	\$ 35,000
CONTRACTUAL SERV - TRANSMISSION			
CONTRACTUAL SERV - ENCO OPS	\$	-	\$ -
CONTRACTUAL SERV - ENCO ADDNDM	\$	-	\$ -
CONTRACTUAL SERV - ENCO 3RD PT	\$	-	\$ -
CONTRACTUAL SERV - CONTR N AID			
CONTRACTUAL SERV - SURGE PROT			
CONTRACTUAL SERV - EL CAPITAL			
CONTRACTUAL SERV - ENERGY CONS	\$	125,000	\$ 175,000
CONTRACTUAL SERV - LOCATOR SVC	\$	-	\$ -
CONTRACTUAL SERV - RES UG CONV			
CONTRACTUAL SERV - OUTAGE REST	\$	50,000	\$ 30,000
TRAVEL AND PER DIEM	\$	5,000	\$ 5,000
COMM SERVICES - EQUIP CHARGES	\$	13,098	\$ 3,261
COMM SERVICES - AIRCARDS	\$	-	\$ -

COMM SERVICES - MOBILE DEVICES	\$	6,000	\$	6,000
UTILITY SERVICES - WATER	\$	3,200	\$	4,000
UTILITY SERVICES - ELECTRICITY	\$	12,000	\$	12,000
RENTALS - BUILDING	\$	-	\$	-
RENTALS - EQUIP REPLACEMENT FD	\$	76,494	\$	85,713
RENTALS - VEHICLE	\$	4,000	\$	-
INSURANCE - GENERAL LIABILITY	\$	26,442	\$	33,496
INSURANCE - RISK MGMT OPS	\$	8,873	\$	9,882
INSURANCE - VEHICLE	\$	7,403	\$	6,035
REPAIR & MAINT - BUILDING	\$	-	\$	-
REPAIR & MAINT - VEHICLE	\$	58,578	\$	90,263
REPAIR & MAINT - FLEET MAINT	\$	5,121	\$	6,803
REPAIR & MAINT - EL LINES	\$	-	\$	-
REPAIR & MAINT - OTHER	\$	5,000	\$	4,000
INT PAID ON UT CUST DEPOSITS	\$	-	\$	-
OTHER - REFUND UG FEE	\$	-	\$	-
OTHER - GROSS RECEIPTS TAX	\$	1,337,360	\$	1,212,855
OTHER - BAD DEBT EXPENSE	\$	-	\$	-
OPERATING SUPPLIES - GENERAL	\$	60,000	\$	50,000
OPERATING SUPPLIES - FUEL	\$	26,860	\$	28,684
OPERATING SUPPLIES - ENCO	\$	-	\$	-
OPERATING SUPPLIES - INVENTORY	\$	180,000	\$	120,000
OPERATING SUPPLIES - UNIFORMS	\$	18,000	\$	18,000
OPERATING EQUIP UNDER \$5000	\$	7,500	\$	5,000
OPERATING - WAREHSE OVER/SHORT	\$	-	\$	-
TRAINING - EDUCATIONAL COSTS	\$	-	\$	-
CAPITAL OUTLAY - BUILDINGS	\$	-	\$	-
CAPITAL OUTLAY - EL WAREHOUSE	\$	-	\$	-
CAPITAL OUTLAY - MACH & EQUIP	\$	-	\$	-
CAPITAL OUTLAY - SOFTWARE	\$	-	\$	-
CAPITAL PROJECTS - CONTRA EXP	\$	-	\$	-
WORK ORDER WASH ACCT - OTHER	\$	-	\$	-
TRAVEL AND PER DIEM	\$	-	\$	-
COMM SERVICES - EQUIP CHARGES	\$	-	\$	-
UTILITY SERVICES - GAS	\$	-	\$	-
INSURANCE - RISK MGMT OPS	\$	-	\$	-
REPAIR & MAINT - STR LTS LABOR	\$	-	\$	-
REPAIR & MAINT - STR LTS MAT	\$	141,000	\$	100,000
PRINTING - COPIER	\$	-	\$	-
PROMOTIONAL ACTIVITIES	\$	-	\$	-
OPERATING SUPPLIES -SL INVNTRY	\$	-	\$	-
OPERATING - WAREHSE OVER/SHORT	\$	-	\$	-
PUBLICATIONS AND MEMBERSHIPS	\$	-	\$	-
TRAINING - EDUCATIONAL COSTS	\$	-	\$	-
CAPITAL OUTLAY - STR LTS LABOR				
CAPITAL OUTLAY - STR LTS MATLS				
CAPITAL OUTLAY - MACH & EQUIP	\$	-	\$	-
CAPITAL OUTLAY - SOFTWARE	\$	-	\$	-
CAPITAL PROJECTS - CONTRA EXP	\$	-	\$	-

REGULAR SALARIES AND WAGES	\$	22,540	\$	47,120
TEMPORARY SUPERVISOR WAGES	\$	-	\$	-
OVERTIME WAGES	\$	-	\$	-
SPECIAL PAY - INCENTIVE PAY	\$	-	\$	-
FICA TAXES	\$	1,724	\$	3,605
RETIREMENT CONTRIBUTIONS - 401	\$	1,578	\$	1,698
RETIREMENT CONTRIBUTIONS - 457	\$	-	\$	457
EMPLOYEE INS - HEALTH & DENTAL	\$	4,960	\$	10,560
EMPLOYEE INS - LIFE	\$	45	\$	94
EMPLOYEE INS - AD&D	\$	5	\$	11
EMPLOYEE INS - DISABILITY	\$	54	\$	113
WORKERS COMPENSATION	\$	850	\$	1,120
UNEMPLOYMENT COMPENSATION	\$	36	\$	73
OTHER SERVICES - CONTRACTUAL	\$	3,000	\$	3,000
TRAVEL AND PER DIEM	\$	2,000	\$	2,000
COMM SERVICES - EQUIP CHARGES	\$	-	\$	-
COMM SERVICES - AIRCARDS	\$	-	\$	-
COMM SERVICES - MOBILE DEVICES	\$	2,000	\$	2,000
FREIGHT & POSTAGE SERVICES	\$	-	\$	-
UTILITY SERVICES - ELECTRICITY	\$	-	\$	-
RENTALS - EQUIP REPLACEMENT FD	\$	5,086	\$	4,706
INSURANCE - GENERAL LIABILITY	\$	970	\$	2,043
INSURANCE - RISK MGMT OPS	\$	326	\$	603
INSURANCE - VEHICLE	\$	492	\$	321
REPAIR & MAINT - CONTRACTS	\$	84,000	\$	89,000
REPAIR & MAINT - SOFTWARE	\$	-	\$	-
REPAIR & MAINT - EQUIPMENT	\$	-	\$	-
REPAIR & MAINT - EL METERS	\$	75,000	\$	50,000
REPAIR & MAINT - VEHICLE	\$	4,286	\$	3,338
REPAIR & MAINT - FLEET MAINT	\$	375	\$	251
PRINTING AND BINDING	\$	-	\$	-
PRINTING - COPIER	\$	-	\$	-
PROMOTIONAL ACTIVITIES	\$	125	\$	125
OPERATING SUPPLIES - GENERAL	\$	-	\$	-
OPERATING SUPPLIES - FUEL	\$	7,455	\$	9,418
OPERATING SUPPLIES - UNIFORMS	\$	2,300	\$	2,300
OPERATING EQUIP UNDER \$5000	\$	10,000	\$	10,000
PUBLICATIONS AND MEMBERSHIPS	\$	-	\$	-
TRAINING - EDUCATIONAL COSTS	\$	1,000	\$	1,000
CAPITAL OUTLAY - MACH & EQUIP	\$	-	\$	-
REGULAR SALARIES AND WAGES	\$	59,792	\$	60,889
OVERTIME WAGES	\$	-	\$	-
FICA TAXES	\$	4,574	\$	4,658
RETIREMENT CONTRIBUTIONS - 401	\$	4,185	\$	1,955
RETIREMENT CONTRIBUTIONS - 457	\$	650	\$	659
EMPLOYEE INS - HEALTH & DENTAL	\$	12,400	\$	13,200
EMPLOYEE INS - LIFE	\$	120	\$	122

EMPLOYEE INS - AD&D	\$	14	\$	15
EMPLOYEE INS - DISABILITY	\$	144	\$	146
WORKERS COMPENSATION	\$	2,300	\$	1,591
UNEMPLOYMENT COMPENSATION	\$	91	\$	91
CONTRACTUAL SERV - TREE TRIM	\$	375,000	\$	375,000
CONTRACTUAL SERV - DEBRIS RMV	\$	50,000	\$	50,000
COMM SERVICES - MOBILE DEVICES	\$	-	\$	-
INSURANCE - GENERAL LIABILITY	\$	2,563	\$	2,640
INSURANCE - RISK MGMT OPS	\$	860	\$	779
OPERATING SUPPLIES - TREES	\$	150,000	\$	150,000
TRAINING - EDUCATIONAL COSTS	\$	-	\$	-
REGULAR SALARIES AND WAGES	\$	188,073	\$	200,033
OTHER WAGES - PART TIME/TEMP	\$	-	\$	-
OVERTIME WAGES	\$	2,500	\$	2,500
FICA TAXES	\$	14,388	\$	15,302
RETIREMENT CONTRIBUTIONS - 401	\$	13,165	\$	14,002
RETIREMENT CONTRIBUTIONS - 457	\$	1,676	\$	1,762
EMPLOYEE INS - HEALTH & DENTAL	\$	37,200	\$	39,600
EMPLOYEE INS - LIFE	\$	376	\$	400
EMPLOYEE INS - AD&D	\$	45	\$	48
EMPLOYEE INS - DISABILITY	\$	451	\$	480
WORKERS COMPENSATION	\$	4,000	\$	4,743
UNEMPLOYMENT COMPENSATION	\$	273	\$	273
OTHER SERVICES - CONTRACTUAL	\$	5,000	\$	5,000
TRAVEL AND PER DIEM	\$	2,500	\$	2,500
COMM SERVICES - EQUIP CHARGES	\$	862	\$	1,087
COMM SERVICES - MOBILE DEVICES	\$	3,200	\$	3,200
UTILITY SERVICES - WATER	\$	-	\$	-
UTILITY SERVICES - ELECTRICITY	\$	-	\$	-
RENTALS - EQUIP REPLACEMENT FD	\$	9,567	\$	9,380
RENTALS - COPIER	\$	309	\$	309
INSURANCE - GENERAL LIABILITY	\$	8,053	\$	8,672
INSURANCE - RISK MGMT OPS	\$	2,702	\$	2,559
INSURANCE - VEHICLE	\$	926	\$	788
REPAIR & MAINT - CONTRACTS	\$	7,500	\$	7,500
REPAIR & MAINT - EQUIPMENT	\$	5,000	\$	5,000
REPAIR & MAINT - VEHICLE	\$	6,272	\$	8,131
REPAIR & MAINT - FLEET MAINT	\$	548	\$	613
PRINTING - COPIER	\$	214	\$	214
OPERATING SUPPLIES - GENERAL	\$	15,000	\$	15,000
OPERATING SUPPLIES - FUEL	\$	299	\$	560
OPERATING SUPPLIES - INVENTORY	\$	-	\$	-
OPERATING SUPPLIES - UNIFORMS	\$	1,000	\$	1,000
OPERATING EQUIP UNDER \$5000	\$	5,000	\$	5,000
OPERATING - WAREHSE OVER/SHORT	\$	-	\$	-
PUBLICATIONS AND MEMBERSHIPS	\$	-	\$	-
TRAINING - EDUCATIONAL COSTS	\$	-	\$	-
CAPITAL OUTLAY - MACH & EQUIP	\$	-	\$	-
CAPITAL OUTLAY - SOFTWARE	\$	-	\$	-

CAPITAL PROJECTS - CONTRA EXP	\$	-	\$	-
REIMB - ADMIN TO GENERAL FUND		1775965		2132235
REIMB - WATER & SEWER FUND		0		0

	FY2025		FY2026		FY2027		FY2028		FY2029		FY2030
	5.00%		3.50%		3.00%		3.00%		3.00%		3.00%
	8.00%		8.00%		7.00%		7.00%		7.00%		7.00%
	4.00%		3.50%		3.00%		3.00%		3.00%		3.00%
	10%		10%		10%		5%		2%		2%
	-10%		5%		2%		3%		3%		3%
	5%		4%		3%		3%		3%		3%
	1%		1%		1%		1%		1%		1%
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	811,243	\$	839,636	\$	864,825	\$	890,770	\$	917,493	\$	945,018
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	15,750	\$	16,301	\$	16,790	\$	17,294	\$	17,813	\$	18,347
\$	62,060	\$	64,232	\$	66,159	\$	68,144	\$	70,188	\$	72,294
\$	56,787	\$	58,775	\$	60,538	\$	62,354	\$	64,225	\$	66,151
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	128,304	\$	138,568	\$	148,268	\$	158,647	\$	169,752	\$	181,635
\$	1,622	\$	1,679	\$	1,729	\$	1,781	\$	1,835	\$	1,890
\$	194	\$	201	\$	207	\$	213	\$	220	\$	226
\$	1,947	\$	2,015	\$	2,075	\$	2,138	\$	2,202	\$	2,268
\$	12,683	\$	13,127	\$	13,521	\$	13,926	\$	14,344	\$	14,774
\$	860	\$	890	\$	917	\$	944	\$	973	\$	1,002
\$	37,440	\$	38,750	\$	39,913	\$	41,110	\$	42,344	\$	43,614
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	78,000	\$	80,730	\$	83,152	\$	85,646	\$	88,216	\$	90,862
\$	35,000	\$	35,000	\$	35,000	\$	35,000	\$	35,000	\$	35,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	207,000	\$	214,245	\$	220,672	\$	227,293	\$	234,111	\$	241,135
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	31,200	\$	32,292	\$	33,261	\$	34,259	\$	35,286	\$	36,345
\$	5,200	\$	5,382	\$	5,543	\$	5,710	\$	5,881	\$	6,057
\$	3,391	\$	3,510	\$	3,615	\$	3,724	\$	3,836	\$	3,951
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

\$	49,476	\$	51,208	\$	52,744	\$	54,326	\$	55,956	\$	57,635
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	3,785	\$	3,918	\$	4,035	\$	4,156	\$	4,281	\$	4,409
\$	1,783	\$	1,845	\$	1,901	\$	1,958	\$	2,016	\$	2,077
\$	480	\$	497	\$	512	\$	527	\$	543	\$	559
\$	11,405	\$	12,317	\$	13,179	\$	14,102	\$	15,089	\$	16,145
\$	99	\$	102	\$	105	\$	108	\$	112	\$	115
\$	12	\$	12	\$	12	\$	13	\$	13	\$	13
\$	119	\$	123	\$	126	\$	130	\$	134	\$	138
\$	1,176	\$	1,217	\$	1,254	\$	1,291	\$	1,330	\$	1,370
\$	77	\$	79	\$	82	\$	84	\$	87	\$	89
\$	3,120	\$	3,229	\$	3,326	\$	3,426	\$	3,529	\$	3,634
\$	2,080	\$	2,153	\$	2,217	\$	2,284	\$	2,352	\$	2,423
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,080	\$	2,153	\$	2,217	\$	2,284	\$	2,352	\$	2,423
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	5,177	\$	5,694	\$	6,264	\$	6,577	\$	6,708	\$	6,843
\$	2,125	\$	2,199	\$	2,265	\$	2,333	\$	2,403	\$	2,475
\$	633	\$	655	\$	675	\$	695	\$	716	\$	738
\$	334	\$	346	\$	356	\$	367	\$	378	\$	389
\$	92,560	\$	95,800	\$	98,674	\$	101,634	\$	104,683	\$	107,823
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	52,000	\$	53,820	\$	55,435	\$	57,098	\$	58,811	\$	60,575
\$	3,472	\$	3,593	\$	3,701	\$	3,812	\$	3,926	\$	4,044
\$	261	\$	270	\$	278	\$	287	\$	295	\$	304
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	130	\$	135	\$	139	\$	143	\$	147	\$	151
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	8,476	\$	8,900	\$	9,078	\$	9,350	\$	9,631	\$	9,920
\$	2,392	\$	2,476	\$	2,550	\$	2,626	\$	2,705	\$	2,786
\$	10,400	\$	10,764	\$	11,087	\$	11,420	\$	11,762	\$	12,115
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,040	\$	1,076	\$	1,109	\$	1,142	\$	1,176	\$	1,211
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	63,933	\$	66,171	\$	68,156	\$	70,201	\$	72,307	\$	74,476
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	4,891	\$	5,062	\$	5,214	\$	5,370	\$	5,531	\$	5,697
\$	2,053	\$	2,125	\$	2,188	\$	2,254	\$	2,322	\$	2,391
\$	692	\$	716	\$	738	\$	760	\$	783	\$	806
\$	14,256	\$	15,396	\$	16,474	\$	17,627	\$	18,861	\$	20,182
\$	128	\$	133	\$	137	\$	141	\$	145	\$	149

\$	16	\$	16	\$	17	\$	17	\$	18	\$	18
\$	153	\$	159	\$	163	\$	168	\$	173	\$	179
\$	1,671	\$	1,729	\$	1,781	\$	1,834	\$	1,889	\$	1,946
\$	96	\$	99	\$	102	\$	105	\$	108	\$	111
\$	325,000	\$	300,000	\$	300,000	\$	300,000	\$	250,000	\$	50,000
\$	52,000	\$	53,820	\$	55,435	\$	57,098	\$	58,811	\$	60,575
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,746	\$	2,842	\$	2,927	\$	3,015	\$	3,105	\$	3,198
\$	818	\$	847	\$	872	\$	898	\$	925	\$	953
\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	210,035	\$	217,386	\$	223,907	\$	230,625	\$	237,543	\$	244,670
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,625	\$	2,717	\$	2,798	\$	2,882	\$	2,969	\$	3,058
\$	16,067	\$	16,629	\$	17,128	\$	17,642	\$	18,171	\$	18,717
\$	14,702	\$	15,217	\$	15,673	\$	16,143	\$	16,628	\$	17,127
\$	1,850	\$	1,915	\$	1,972	\$	2,031	\$	2,092	\$	2,155
\$	42,768	\$	46,189	\$	49,423	\$	52,882	\$	56,584	\$	60,545
\$	420	\$	435	\$	448	\$	461	\$	475	\$	489
\$	50	\$	52	\$	54	\$	55	\$	57	\$	59
\$	504	\$	522	\$	537	\$	553	\$	570	\$	587
\$	4,980	\$	5,154	\$	5,309	\$	5,468	\$	5,632	\$	5,801
\$	287	\$	297	\$	306	\$	315	\$	324	\$	334
\$	5,200	\$	5,382	\$	5,543	\$	5,710	\$	5,881	\$	6,057
\$	2,600	\$	2,691	\$	2,772	\$	2,855	\$	2,941	\$	3,029
\$	1,130	\$	1,170	\$	1,205	\$	1,241	\$	1,279	\$	1,317
\$	3,328	\$	3,444	\$	3,548	\$	3,654	\$	3,764	\$	3,877
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	10,318	\$	11,350	\$	12,485	\$	13,109	\$	13,371	\$	13,639
\$	309	\$	309	\$	309	\$	309	\$	309	\$	309
\$	9,019	\$	9,335	\$	9,615	\$	9,903	\$	10,200	\$	10,506
\$	2,687	\$	2,781	\$	2,864	\$	2,950	\$	3,039	\$	3,130
\$	820	\$	848	\$	874	\$	900	\$	927	\$	955
\$	7,800	\$	8,073	\$	8,315	\$	8,565	\$	8,822	\$	9,086
\$	5,200	\$	5,382	\$	5,543	\$	5,710	\$	5,881	\$	6,057
\$	8,456	\$	8,752	\$	9,015	\$	9,285	\$	9,564	\$	9,851
\$	638	\$	660	\$	680	\$	700	\$	721	\$	743
\$	223	\$	230	\$	237	\$	244	\$	252	\$	259
\$	15,600	\$	16,146	\$	16,630	\$	17,129	\$	17,643	\$	18,172
\$	504	\$	529	\$	540	\$	556	\$	573	\$	590
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,040	\$	1,076	\$	1,109	\$	1,142	\$	1,176	\$	1,211
\$	5,200	\$	5,382	\$	5,543	\$	5,710	\$	5,881	\$	6,057
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2238846.75	2317206.386	2386722.578	2458324.255	2532073.983	2608036.202				
0	0	0	0	0	0				

	FY2031		FY2032		FY2033		FY2034		FY2035		FY2036
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
	7.00%		7.00%		7.00%		7.00%		7.00%		7.00%
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
	2%		2%		2%		2%		2%		2%
	3%		3%		3%		3%		3%		3%
	3%		3%		3%		3%		3%		3%
	1%		1%		1%		1%		1%		1%
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
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\$	973,368	\$	1,002,569	\$	1,032,646	\$	1,063,626	\$	1,095,535	\$	1,128,401
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
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\$	18,898	\$	19,465	\$	20,048	\$	20,650	\$	21,269	\$	21,908
\$	74,463	\$	76,697	\$	78,998	\$	81,368	\$	83,809	\$	86,323
\$	68,136	\$	70,180	\$	72,285	\$	74,454	\$	76,688	\$	78,988
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	194,349	\$	207,954	\$	222,510	\$	238,086	\$	254,752	\$	272,585
\$	1,946	\$	2,005	\$	2,065	\$	2,127	\$	2,191	\$	2,256
\$	233	\$	240	\$	247	\$	255	\$	262	\$	270
\$	2,336	\$	2,406	\$	2,478	\$	2,552	\$	2,629	\$	2,708
\$	15,218	\$	15,674	\$	16,144	\$	16,629	\$	17,128	\$	17,641
\$	1,032	\$	1,063	\$	1,095	\$	1,127	\$	1,161	\$	1,196
\$	44,922	\$	46,270	\$	47,658	\$	49,088	\$	50,560	\$	52,077
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	93,588	\$	96,396	\$	99,288	\$	102,266	\$	105,334	\$	108,494
\$	35,000	\$	35,000	\$	35,000	\$	35,000	\$	35,000	\$	35,000
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\$	248,369	\$	255,820	\$	263,494	\$	271,399	\$	279,541	\$	287,927
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	37,435	\$	38,558	\$	39,715	\$	40,907	\$	42,134	\$	43,398
\$	6,239	\$	6,426	\$	6,619	\$	6,818	\$	7,022	\$	7,233
\$	4,069	\$	4,191	\$	4,317	\$	4,447	\$	4,580	\$	4,717
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\$	59,364	\$	61,145	\$	62,979	\$	64,868	\$	66,814	\$	68,819
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\$	4,542	\$	4,678	\$	4,818	\$	4,963	\$	5,112	\$	5,265
\$	2,139	\$	2,203	\$	2,269	\$	2,338	\$	2,408	\$	2,480
\$	576	\$	593	\$	611	\$	629	\$	648	\$	667
\$	17,275	\$	18,485	\$	19,779	\$	21,163	\$	22,645	\$	24,230
\$	118	\$	122	\$	126	\$	129	\$	133	\$	137
\$	14	\$	14	\$	15	\$	15	\$	16	\$	16
\$	142	\$	147	\$	151	\$	156	\$	160	\$	165
\$	1,411	\$	1,453	\$	1,497	\$	1,542	\$	1,588	\$	1,636
\$	92	\$	95	\$	98	\$	100	\$	104	\$	107
\$	3,744	\$	3,856	\$	3,972	\$	4,091	\$	4,213	\$	4,340
\$	2,496	\$	2,571	\$	2,648	\$	2,727	\$	2,809	\$	2,893
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,496	\$	2,571	\$	2,648	\$	2,727	\$	2,809	\$	2,893
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	6,979	\$	7,119	\$	7,261	\$	7,407	\$	7,555	\$	7,706
\$	2,549	\$	2,626	\$	2,705	\$	2,786	\$	2,869	\$	2,955
\$	760	\$	782	\$	806	\$	830	\$	855	\$	881
\$	401	\$	413	\$	425	\$	438	\$	451	\$	464
\$	111,058	\$	114,390	\$	117,821	\$	121,356	\$	124,997	\$	128,747
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\$	62,392	\$	64,264	\$	66,192	\$	68,178	\$	70,223	\$	72,330
\$	4,165	\$	4,290	\$	4,419	\$	4,552	\$	4,688	\$	4,829
\$	313	\$	323	\$	332	\$	342	\$	353	\$	363
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
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\$	156	\$	161	\$	165	\$	170	\$	176	\$	181
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	10,217	\$	10,524	\$	10,840	\$	11,165	\$	11,500	\$	11,845
\$	2,870	\$	2,956	\$	3,045	\$	3,136	\$	3,230	\$	3,327
\$	12,478	\$	12,853	\$	13,238	\$	13,636	\$	14,045	\$	14,466
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\$	1,248	\$	1,285	\$	1,324	\$	1,364	\$	1,404	\$	1,447
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	76,710	\$	79,012	\$	81,382	\$	83,824	\$	86,338	\$	88,928
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\$	5,868	\$	6,044	\$	6,226	\$	6,412	\$	6,605	\$	6,803
\$	2,463	\$	2,537	\$	2,613	\$	2,691	\$	2,772	\$	2,855
\$	830	\$	855	\$	881	\$	907	\$	934	\$	962
\$	21,594	\$	23,106	\$	24,723	\$	26,454	\$	28,306	\$	30,287
\$	154	\$	158	\$	163	\$	168	\$	173	\$	178

\$	19	\$	19	\$	20	\$	21	\$	21	\$	22
\$	184	\$	189	\$	195	\$	201	\$	207	\$	213
\$	2,004	\$	2,065	\$	2,126	\$	2,190	\$	2,256	\$	2,324
\$	115	\$	118	\$	122	\$	125	\$	129	\$	133
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	62,392	\$	64,264	\$	66,192	\$	68,178	\$	70,223	\$	72,330
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\$	3,294	\$	3,393	\$	3,495	\$	3,600	\$	3,708	\$	3,819
\$	981	\$	1,011	\$	1,041	\$	1,072	\$	1,105	\$	1,138
\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000
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\$	252,010	\$	259,570	\$	267,357	\$	275,378	\$	283,639	\$	292,148
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\$	3,150	\$	3,244	\$	3,341	\$	3,442	\$	3,545	\$	3,651
\$	19,278	\$	19,856	\$	20,452	\$	21,066	\$	21,698	\$	22,349
\$	17,640	\$	18,170	\$	18,715	\$	19,276	\$	19,854	\$	20,450
\$	2,220	\$	2,286	\$	2,355	\$	2,426	\$	2,498	\$	2,573
\$	64,783	\$	69,318	\$	74,170	\$	79,362	\$	84,917	\$	90,862
\$	504	\$	519	\$	535	\$	551	\$	567	\$	584
\$	60	\$	62	\$	64	\$	66	\$	68	\$	70
\$	605	\$	623	\$	642	\$	661	\$	681	\$	701
\$	5,975	\$	6,155	\$	6,339	\$	6,530	\$	6,725	\$	6,927
\$	344	\$	354	\$	365	\$	376	\$	387	\$	399
\$	6,239	\$	6,426	\$	6,619	\$	6,818	\$	7,022	\$	7,233
\$	3,120	\$	3,213	\$	3,310	\$	3,409	\$	3,511	\$	3,616
\$	1,356	\$	1,397	\$	1,439	\$	1,482	\$	1,527	\$	1,572
\$	3,993	\$	4,113	\$	4,236	\$	4,363	\$	4,494	\$	4,629
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\$	13,911	\$	14,190	\$	14,473	\$	14,763	\$	15,058	\$	15,359
\$	309	\$	309	\$	309	\$	309	\$	309	\$	309
\$	10,821	\$	11,146	\$	11,480	\$	11,825	\$	12,179	\$	12,545
\$	3,224	\$	3,321	\$	3,420	\$	3,523	\$	3,629	\$	3,737
\$	983	\$	1,013	\$	1,043	\$	1,074	\$	1,107	\$	1,140
\$	9,359	\$	9,640	\$	9,929	\$	10,227	\$	10,533	\$	10,849
\$	6,239	\$	6,426	\$	6,619	\$	6,818	\$	7,022	\$	7,233
\$	10,146	\$	10,451	\$	10,764	\$	11,087	\$	11,420	\$	11,762
\$	765	\$	788	\$	812	\$	836	\$	861	\$	887
\$	267	\$	275	\$	283	\$	292	\$	301	\$	310
\$	18,718	\$	19,279	\$	19,858	\$	20,453	\$	21,067	\$	21,699
\$	608	\$	626	\$	645	\$	664	\$	684	\$	704
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,248	\$	1,285	\$	1,324	\$	1,364	\$	1,404	\$	1,447
\$	6,239	\$	6,426	\$	6,619	\$	6,818	\$	7,022	\$	7,233
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2686277.288	2766865.607	2849871.575	\$	2,935,368	\$	3,023,429	\$	3,114,132	
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	FY2037		FY2038		FY2039		FY2040		FY2041		FY2042
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
	7.00%		7.00%		7.00%		7.00%		7.00%		7.00%
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
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\$	1,162,253	\$	1,197,120	\$	1,233,034	\$	1,270,025	\$	1,308,126	\$	1,347,369
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	22,565	\$	23,242	\$	23,939	\$	24,657	\$	25,397	\$	26,159
\$	88,913	\$	91,580	\$	94,327	\$	97,157	\$	100,072	\$	103,074
\$	81,358	\$	83,799	\$	86,313	\$	88,902	\$	91,569	\$	94,316
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	291,666	\$	312,082	\$	333,928	\$	357,303	\$	382,314	\$	409,076
\$	2,324	\$	2,394	\$	2,466	\$	2,540	\$	2,616	\$	2,694
\$	278	\$	287	\$	295	\$	304	\$	313	\$	323
\$	2,789	\$	2,873	\$	2,959	\$	3,048	\$	3,139	\$	3,233
\$	18,171	\$	18,716	\$	19,277	\$	19,856	\$	20,451	\$	21,065
\$	1,232	\$	1,269	\$	1,307	\$	1,346	\$	1,387	\$	1,428
\$	53,640	\$	55,249	\$	56,906	\$	58,613	\$	60,372	\$	62,183
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\$	111,749	\$	115,102	\$	118,555	\$	122,111	\$	125,775	\$	129,548
\$	35,000	\$	35,000	\$	35,000	\$	35,000	\$	35,000	\$	35,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	296,565	\$	305,462	\$	314,626	\$	324,065	\$	333,787	\$	343,800
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\$	44,700	\$	46,041	\$	47,422	\$	48,845	\$	50,310	\$	51,819
\$	7,450	\$	7,673	\$	7,904	\$	8,141	\$	8,385	\$	8,637
\$	4,859	\$	5,005	\$	5,155	\$	5,309	\$	5,469	\$	5,633
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\$	70,883	\$	73,010	\$	75,200	\$	77,456	\$	79,780	\$	82,173
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	5,423	\$	5,586	\$	5,753	\$	5,926	\$	6,104	\$	6,287
\$	2,554	\$	2,631	\$	2,710	\$	2,791	\$	2,875	\$	2,961
\$	687	\$	708	\$	729	\$	751	\$	774	\$	797
\$	25,926	\$	27,741	\$	29,683	\$	31,760	\$	33,983	\$	36,362
\$	141	\$	146	\$	150	\$	155	\$	159	\$	164
\$	17	\$	17	\$	18	\$	18	\$	19	\$	19
\$	170	\$	175	\$	180	\$	186	\$	191	\$	197
\$	1,685	\$	1,735	\$	1,787	\$	1,841	\$	1,896	\$	1,953
\$	110	\$	113	\$	117	\$	120	\$	124	\$	127
\$	4,470	\$	4,604	\$	4,742	\$	4,884	\$	5,031	\$	5,182
\$	2,980	\$	3,069	\$	3,161	\$	3,256	\$	3,354	\$	3,455
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,980	\$	3,069	\$	3,161	\$	3,256	\$	3,354	\$	3,455
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	7,860	\$	8,017	\$	8,178	\$	8,341	\$	8,508	\$	8,678
\$	3,044	\$	3,135	\$	3,229	\$	3,326	\$	3,426	\$	3,529
\$	907	\$	934	\$	962	\$	991	\$	1,021	\$	1,052
\$	478	\$	493	\$	507	\$	523	\$	538	\$	554
\$	132,609	\$	136,587	\$	140,685	\$	144,905	\$	149,253	\$	153,730
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
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\$	74,499	\$	76,734	\$	79,036	\$	81,408	\$	83,850	\$	86,365
\$	4,974	\$	5,123	\$	5,276	\$	5,435	\$	5,598	\$	5,766
\$	374	\$	385	\$	397	\$	409	\$	421	\$	434
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\$	186	\$	192	\$	198	\$	204	\$	210	\$	216
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	12,200	\$	12,566	\$	12,943	\$	13,331	\$	13,731	\$	14,143
\$	3,427	\$	3,530	\$	3,636	\$	3,745	\$	3,857	\$	3,973
\$	14,900	\$	15,347	\$	15,807	\$	16,282	\$	16,770	\$	17,273
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,490	\$	1,535	\$	1,581	\$	1,628	\$	1,677	\$	1,727
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	91,596	\$	94,344	\$	97,175	\$	100,090	\$	103,092	\$	106,185
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	7,007	\$	7,217	\$	7,434	\$	7,657	\$	7,887	\$	8,123
\$	2,941	\$	3,029	\$	3,120	\$	3,214	\$	3,310	\$	3,409
\$	991	\$	1,021	\$	1,052	\$	1,083	\$	1,116	\$	1,149
\$	32,407	\$	34,676	\$	37,103	\$	39,700	\$	42,479	\$	45,453
\$	184	\$	189	\$	195	\$	201	\$	207	\$	213

\$	23	\$	23	\$	24	\$	25	\$	25	\$	26
\$	220	\$	226	\$	233	\$	240	\$	247	\$	255
\$	2,393	\$	2,465	\$	2,539	\$	2,615	\$	2,694	\$	2,775
\$	137	\$	141	\$	145	\$	150	\$	154	\$	159
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	74,499	\$	76,734	\$	79,036	\$	81,408	\$	83,850	\$	86,365
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	3,934	\$	4,052	\$	4,173	\$	4,298	\$	4,427	\$	4,560
\$	1,172	\$	1,207	\$	1,243	\$	1,281	\$	1,319	\$	1,359
\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	300,913	\$	309,940	\$	319,238	\$	328,816	\$	338,680	\$	348,840
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	3,761	\$	3,874	\$	3,990	\$	4,110	\$	4,233	\$	4,360
\$	23,019	\$	23,710	\$	24,421	\$	25,154	\$	25,908	\$	26,685
\$	21,063	\$	21,695	\$	22,346	\$	23,017	\$	23,707	\$	24,418
\$	2,651	\$	2,730	\$	2,812	\$	2,896	\$	2,983	\$	3,073
\$	97,222	\$	104,027	\$	111,309	\$	119,101	\$	127,438	\$	136,359
\$	602	\$	620	\$	638	\$	658	\$	677	\$	698
\$	72	\$	74	\$	77	\$	79	\$	81	\$	84
\$	722	\$	744	\$	766	\$	789	\$	813	\$	837
\$	7,135	\$	7,349	\$	7,569	\$	7,797	\$	8,030	\$	8,271
\$	411	\$	423	\$	436	\$	449	\$	462	\$	476
\$	7,450	\$	7,673	\$	7,904	\$	8,141	\$	8,385	\$	8,637
\$	3,725	\$	3,837	\$	3,952	\$	4,070	\$	4,192	\$	4,318
\$	1,620	\$	1,668	\$	1,718	\$	1,770	\$	1,823	\$	1,878
\$	4,768	\$	4,911	\$	5,058	\$	5,210	\$	5,366	\$	5,527
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	15,666	\$	15,980	\$	16,299	\$	16,625	\$	16,958	\$	17,297
\$	309	\$	309	\$	309	\$	309	\$	309	\$	309
\$	12,921	\$	13,309	\$	13,708	\$	14,119	\$	14,543	\$	14,979
\$	3,850	\$	3,965	\$	4,084	\$	4,207	\$	4,333	\$	4,463
\$	1,174	\$	1,209	\$	1,246	\$	1,283	\$	1,321	\$	1,361
\$	11,175	\$	11,510	\$	11,855	\$	12,211	\$	12,577	\$	12,955
\$	7,450	\$	7,673	\$	7,904	\$	8,141	\$	8,385	\$	8,637
\$	12,115	\$	12,479	\$	12,853	\$	13,239	\$	13,636	\$	14,045
\$	913	\$	941	\$	969	\$	998	\$	1,028	\$	1,059
\$	319	\$	328	\$	338	\$	348	\$	359	\$	370
\$	22,350	\$	23,020	\$	23,711	\$	24,422	\$	25,155	\$	25,910
\$	725	\$	747	\$	770	\$	793	\$	816	\$	841
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,490	\$	1,535	\$	1,581	\$	1,628	\$	1,677	\$	1,727
\$	7,450	\$	7,673	\$	7,904	\$	8,141	\$	8,385	\$	8,637
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	3,207,556	\$	3,303,782	\$	3,402,896	\$	3,504,983	\$	3,610,132	\$	3,718,436
	0		0		0		0		0		0

FY2043	FY2044	FY2045	FY2046	FY2047	FY2048
3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
7.00%	7.00%	7.00%	7.00%	7.00%	7.00%
3.00%	3.00%	3.00%	3.00%	3.00%	3.00%
2%	2%	2%	2%	2%	2%
3%	3%	3%	3%	3%	3%
3%	3%	3%	3%	3%	3%
1%	1%	1%	1%	1%	1%
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 1,387,791	\$ 1,429,424	\$ 1,472,307	\$ 1,516,476	\$ 1,561,970	\$ 1,608,830
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 26,943	\$ 27,752	\$ 28,584	\$ 29,442	\$ 30,325	\$ 31,235
\$ 106,166	\$ 109,351	\$ 112,632	\$ 116,011	\$ 119,491	\$ 123,076
\$ 97,146	\$ 100,060	\$ 103,062	\$ 106,154	\$ 109,338	\$ 112,618
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 437,712	\$ 468,352	\$ 501,136	\$ 536,216	\$ 573,751	\$ 613,913
\$ 2,775	\$ 2,858	\$ 2,944	\$ 3,033	\$ 3,123	\$ 3,217
\$ 332	\$ 342	\$ 353	\$ 363	\$ 374	\$ 385
\$ 3,330	\$ 3,430	\$ 3,533	\$ 3,639	\$ 3,748	\$ 3,861
\$ 21,697	\$ 22,348	\$ 23,018	\$ 23,709	\$ 24,420	\$ 25,152
\$ 1,471	\$ 1,515	\$ 1,561	\$ 1,608	\$ 1,656	\$ 1,705
\$ 64,049	\$ 65,970	\$ 67,949	\$ 69,988	\$ 72,087	\$ 74,250
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 133,434	\$ 137,437	\$ 141,561	\$ 145,807	\$ 150,182	\$ 154,687
\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000	\$ 35,000
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 354,114	\$ 364,738	\$ 375,680	\$ 386,950	\$ 398,559	\$ 410,516
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ 53,374	\$ 54,975	\$ 56,624	\$ 58,323	\$ 60,073	\$ 61,875
\$ 8,896	\$ 9,162	\$ 9,437	\$ 9,720	\$ 10,012	\$ 10,312
\$ 5,802	\$ 5,976	\$ 6,155	\$ 6,340	\$ 6,530	\$ 6,726
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

\$	84,638	\$	87,178	\$	89,793	\$	92,487	\$	95,261	\$	98,119
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	6,475	\$	6,670	\$	6,870	\$	7,076	\$	7,288	\$	7,507
\$	3,050	\$	3,142	\$	3,236	\$	3,333	\$	3,433	\$	3,536
\$	821	\$	846	\$	871	\$	897	\$	924	\$	952
\$	38,908	\$	41,631	\$	44,545	\$	47,664	\$	51,000	\$	54,570
\$	169	\$	174	\$	179	\$	185	\$	190	\$	196
\$	20	\$	20	\$	21	\$	22	\$	22	\$	23
\$	203	\$	209	\$	215	\$	222	\$	228	\$	235
\$	2,012	\$	2,072	\$	2,134	\$	2,198	\$	2,264	\$	2,332
\$	131	\$	135	\$	139	\$	143	\$	148	\$	152
\$	5,337	\$	5,497	\$	5,662	\$	5,832	\$	6,007	\$	6,187
\$	3,558	\$	3,665	\$	3,775	\$	3,888	\$	4,005	\$	4,125
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	3,558	\$	3,665	\$	3,775	\$	3,888	\$	4,005	\$	4,125
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	8,852	\$	9,029	\$	9,209	\$	9,393	\$	9,581	\$	9,773
\$	3,635	\$	3,744	\$	3,856	\$	3,972	\$	4,091	\$	4,214
\$	1,083	\$	1,116	\$	1,149	\$	1,184	\$	1,219	\$	1,256
\$	571	\$	588	\$	606	\$	624	\$	643	\$	662
\$	158,342	\$	163,092	\$	167,985	\$	173,025	\$	178,215	\$	183,562
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	88,956	\$	91,625	\$	94,374	\$	97,205	\$	100,121	\$	103,125
\$	5,939	\$	6,117	\$	6,300	\$	6,489	\$	6,684	\$	6,885
\$	447	\$	460	\$	474	\$	488	\$	503	\$	518
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	222	\$	229	\$	236	\$	243	\$	250	\$	258
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	14,568	\$	15,005	\$	15,455	\$	15,918	\$	16,396	\$	16,888
\$	4,092	\$	4,215	\$	4,341	\$	4,471	\$	4,606	\$	4,744
\$	17,791	\$	18,325	\$	18,875	\$	19,441	\$	20,024	\$	20,625
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,779	\$	1,832	\$	1,887	\$	1,944	\$	2,002	\$	2,062
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	109,371	\$	112,652	\$	116,031	\$	119,512	\$	123,098	\$	126,791
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	8,367	\$	8,618	\$	8,876	\$	9,143	\$	9,417	\$	9,699
\$	3,512	\$	3,617	\$	3,725	\$	3,837	\$	3,952	\$	4,071
\$	1,184	\$	1,219	\$	1,256	\$	1,293	\$	1,332	\$	1,372
\$	48,635	\$	52,039	\$	55,682	\$	59,580	\$	63,750	\$	68,213
\$	219	\$	226	\$	232	\$	239	\$	247	\$	254

\$	27	\$	28	\$	29	\$	29	\$	30	\$	31
\$	262	\$	270	\$	278	\$	287	\$	295	\$	304
\$	2,858	\$	2,944	\$	3,032	\$	3,123	\$	3,216	\$	3,313
\$	163	\$	168	\$	173	\$	179	\$	184	\$	189
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	88,956	\$	91,625	\$	94,374	\$	97,205	\$	100,121	\$	103,125
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	4,697	\$	4,838	\$	4,983	\$	5,132	\$	5,286	\$	5,445
\$	1,399	\$	1,441	\$	1,484	\$	1,529	\$	1,575	\$	1,622
\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000	\$	150,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	359,306	\$	370,085	\$	381,187	\$	392,623	\$	404,402	\$	416,534
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	4,491	\$	4,625	\$	4,764	\$	4,907	\$	5,054	\$	5,206
\$	27,486	\$	28,311	\$	29,160	\$	30,035	\$	30,936	\$	31,864
\$	25,151	\$	25,905	\$	26,683	\$	27,483	\$	28,307	\$	29,157
\$	3,165	\$	3,260	\$	3,358	\$	3,458	\$	3,562	\$	3,669
\$	145,904	\$	156,117	\$	167,045	\$	178,739	\$	191,250	\$	204,638
\$	718	\$	740	\$	762	\$	785	\$	809	\$	833
\$	86	\$	89	\$	91	\$	94	\$	97	\$	100
\$	862	\$	888	\$	915	\$	942	\$	970	\$	1,000
\$	8,520	\$	8,775	\$	9,038	\$	9,310	\$	9,589	\$	9,876
\$	490	\$	505	\$	520	\$	536	\$	552	\$	568
\$	8,896	\$	9,162	\$	9,437	\$	9,720	\$	10,012	\$	10,312
\$	4,448	\$	4,581	\$	4,719	\$	4,860	\$	5,006	\$	5,156
\$	1,934	\$	1,992	\$	2,052	\$	2,113	\$	2,177	\$	2,242
\$	5,693	\$	5,864	\$	6,040	\$	6,221	\$	6,408	\$	6,600
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	17,643	\$	17,996	\$	18,356	\$	18,723	\$	19,097	\$	19,479
\$	309	\$	309	\$	309	\$	309	\$	309	\$	309
\$	15,429	\$	15,891	\$	16,368	\$	16,859	\$	17,365	\$	17,886
\$	4,597	\$	4,734	\$	4,876	\$	5,023	\$	5,173	\$	5,329
\$	1,402	\$	1,444	\$	1,487	\$	1,532	\$	1,578	\$	1,625
\$	13,343	\$	13,744	\$	14,156	\$	14,581	\$	15,018	\$	15,469
\$	8,896	\$	9,162	\$	9,437	\$	9,720	\$	10,012	\$	10,312
\$	14,466	\$	14,900	\$	15,347	\$	15,807	\$	16,282	\$	16,770
\$	1,091	\$	1,123	\$	1,157	\$	1,192	\$	1,227	\$	1,264
\$	381	\$	392	\$	404	\$	416	\$	429	\$	441
\$	26,687	\$	27,487	\$	28,312	\$	29,161	\$	30,036	\$	30,937
\$	866	\$	892	\$	919	\$	947	\$	975	\$	1,004
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,779	\$	1,832	\$	1,887	\$	1,944	\$	2,002	\$	2,062
\$	8,896	\$	9,162	\$	9,437	\$	9,720	\$	10,012	\$	10,312
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	3,829,989	\$	3,944,889	\$	4,063,235	\$	4,185,132	\$	4,310,686	\$	4,440,007
	0		0		0		0		0		0

FY2049	FY2050
3.00%	3.00%
7.00%	7.00%
3.00%	3.00%
2%	2%
3%	3%
3%	3%
1%	1%

\$ -	\$ -
\$ -	\$ -
\$ 1,657,094	\$ 1,706,807
\$ -	\$ -
\$ -	\$ -
\$ 32,172	\$ 33,137
\$ 126,768	\$ 130,571
\$ 115,997	\$ 119,477
\$ -	\$ -
\$ 656,887	\$ 702,869
\$ 3,314	\$ 3,413
\$ 397	\$ 409
\$ 3,976	\$ 4,096
\$ 25,907	\$ 26,684
\$ 1,757	\$ 1,809
\$ 76,477	\$ 78,772

\$ -	\$ -
\$ 159,328	\$ 164,107
\$ 35,000	\$ 35,000

\$ -	\$ -
\$ -	\$ -
\$ -	\$ -

\$ 422,831	\$ 435,516
\$ -	\$ -

\$ 63,731	\$ 65,643
\$ 10,622	\$ 10,940
\$ 6,928	\$ 7,135
\$ -	\$ -

\$	101,063	\$	104,095
\$	-	\$	-
\$	-	\$	-
\$	-	\$	-
\$	7,732	\$	7,964
\$	3,642	\$	3,751
\$	980	\$	1,010
\$	58,390	\$	62,477
\$	202	\$	208
\$	24	\$	24
\$	242	\$	250
\$	2,402	\$	2,474
\$	157	\$	161
\$	6,373	\$	6,564
\$	4,249	\$	4,376
\$	-	\$	-
\$	-	\$	-
\$	4,249	\$	4,376
\$	-	\$	-
\$	-	\$	-
\$	9,968	\$	10,168
\$	4,340	\$	4,470
\$	1,293	\$	1,332
\$	682	\$	702
\$	189,069	\$	194,741
\$	-	\$	-
\$	-	\$	-
\$	106,218	\$	109,405
\$	7,091	\$	7,304
\$	533	\$	549
\$	-	\$	-
\$	-	\$	-
\$	266	\$	274
\$	-	\$	-
\$	17,394	\$	17,916
\$	4,886	\$	5,033
\$	21,244	\$	21,881
\$	-	\$	-
\$	2,124	\$	2,188
\$	-	\$	-
\$	130,594	\$	134,512
\$	-	\$	-
\$	9,990	\$	10,290
\$	4,193	\$	4,319
\$	1,413	\$	1,456
\$	72,987	\$	78,097
\$	262	\$	270

\$	32	\$	33
\$	313	\$	323
\$	3,412	\$	3,515
\$	195	\$	201
\$	-	\$	-
\$	106,218	\$	109,405
\$	-	\$	-
\$	5,608	\$	5,777
\$	1,671	\$	1,721
\$	150,000	\$	150,000
\$	-	\$	-
\$	429,030	\$	441,901
\$	-	\$	-
\$	5,362	\$	5,523
\$	32,820	\$	33,804
\$	30,031	\$	30,932
\$	3,779	\$	3,893
\$	218,962	\$	234,290
\$	858	\$	884
\$	103	\$	106
\$	1,030	\$	1,060
\$	10,173	\$	10,478
\$	586	\$	603
\$	10,622	\$	10,940
\$	5,311	\$	5,470
\$	2,309	\$	2,378
\$	6,798	\$	7,002
\$	-	\$	-
\$	-	\$	-
\$	19,869	\$	20,266
\$	309	\$	309
\$	18,423	\$	18,975
\$	5,489	\$	5,653
\$	1,674	\$	1,724
\$	15,933	\$	16,411
\$	10,622	\$	10,940
\$	17,273	\$	17,791
\$	1,302	\$	1,341
\$	455	\$	468
\$	31,866	\$	32,821
\$	1,034	\$	1,065
\$	-	\$	-
\$	2,124	\$	2,188
\$	10,622	\$	10,940
\$	-	\$	-
\$	-	\$	-
\$	-	\$	-
\$	-	\$	-
\$	-	\$	-

\$	-	\$	-
\$	4,573,207	\$	4,710,403
	0		0

Comments

Annual escalation rates are taken from CWP 10-year pro-forma calculation workbook. The rates are projected out

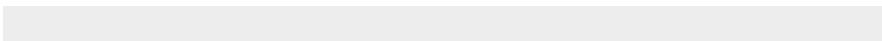
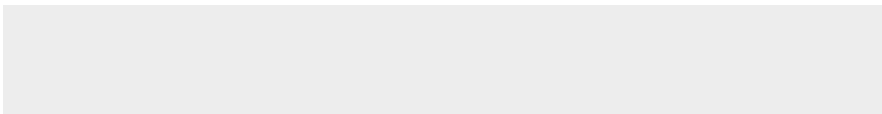
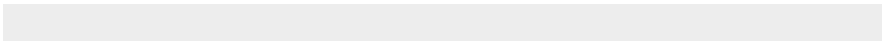
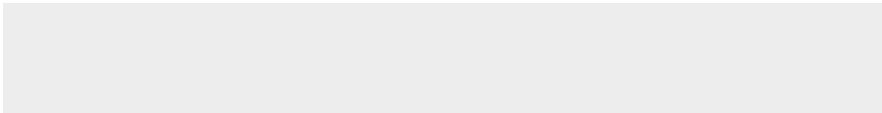
Percent change between the last two years in the CWP 10-year pro-forma are used to project forward for the acco

Each account line-item is projected using the same methodology used in the CWP 10-year pro-forma.

Percent change between the last two years in the CWP 10-year pro-forma are used to project forward for the accc

: to 2050 based on the last year's value of the original projection rate.

ount



ount REIMB - ADMIN TO GENERAL FUND.

Account Description	FY2023 (Actual		FY2024
	+ Budget)		
Other Revenues Annual Escalation			
General Other Operating Expense Annual Escalation			
CONTRACTUAL SERV - CONTR N AID	\$	500,000	\$ 500,000
CONTRACTUAL SERV - SURGE PROT	\$	-	\$ -
CONTRACTUAL SERV - EL CAPITAL	\$	1,360,211	\$ 1,428,222
CONTRACTUAL SERV - RES UG CONV	\$	-	\$ 150,000
CAPITAL OUTLAY - STR LTS LABOR	\$	200,000	\$ 100,000
CAPITAL OUTLAY - STR LTS MATLS	\$	198,000	\$ 100,000

FY2025		FY2026		FY2027		FY2028		FY2029		FY2030	
3%		3%		3%		3%		3%		3%	
4.00%		3.50%		3.00%		3.00%		3.00%		3.00%	
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,499,633	\$	1,574,614	\$	1,653,345	\$	1,736,012	\$	1,788,093	\$	1,841,735
\$	156,000	\$	161,460	\$	166,304	\$	171,293	\$	176,432	\$	181,725
\$	104,000	\$	107,640	\$	110,869	\$	114,195	\$	117,621	\$	121,150
\$	104,000	\$	107,640	\$	110,869	\$	114,195	\$	117,621	\$	121,150

FY2031		FY2032		FY2033		FY2034		FY2035		FY2036	
3%		3%		3%		3%		3%		3%	
3.00%		3.00%		3.00%		3.00%		3.00%		3.00%	
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	1,896,987	\$	1,953,897	\$	2,012,514	\$	2,072,889	\$	2,135,076	\$	2,199,128
\$	187,176	\$	192,792	\$	198,575	\$	204,533	\$	210,669	\$	216,989
\$	124,784	\$	128,528	\$	132,384	\$	136,355	\$	140,446	\$	144,659
\$	124,784	\$	128,528	\$	132,384	\$	136,355	\$	140,446	\$	144,659

FY2037		FY2038		FY2039		FY2040		FY2041		FY2042	
3%		3%		3%		3%		3%		3%	
3.00%		3.00%		3.00%		3.00%		3.00%		3.00%	
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,265,102	\$	2,333,055	\$	2,403,047	\$	2,475,138	\$	2,549,392	\$	2,625,874
\$	223,498	\$	230,203	\$	237,109	\$	244,223	\$	251,549	\$	259,096
\$	148,999	\$	153,469	\$	158,073	\$	162,815	\$	167,700	\$	172,731
\$	148,999	\$	153,469	\$	158,073	\$	162,815	\$	167,700	\$	172,731

FY2043		FY2044		FY2045		FY2046		FY2047		FY2048	
3%		3%		3%		3%		3%		3%	
3.00%		3.00%		3.00%		3.00%		3.00%		3.00%	
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	2,704,650	\$	2,785,790	\$	2,869,364	\$	2,955,445	\$	3,044,108	\$	3,135,431
\$	266,869	\$	274,875	\$	283,121	\$	291,615	\$	300,363	\$	309,374
\$	177,913	\$	183,250	\$	188,747	\$	194,410	\$	200,242	\$	206,249
\$	177,913	\$	183,250	\$	188,747	\$	194,410	\$	200,242	\$	206,249

FY2049		FY2050	
3%		3%	
3.00%		3.00%	
\$	500,000	\$	500,000
\$	-	\$	-
\$	3,229,494	\$	3,326,379
\$	318,655	\$	328,215
\$	212,437	\$	218,810
\$	212,437	\$	218,810

Comments

Annual escalation rates are taken from CWP 10-year pro-forma calculation workbook. The rates are projected out

Each account line-item is projected using the same methodology used in the CWP 10-year pro-forma.

: to 2050 based on the last year's value of the original projection rate.

Organization	Object	Account Description	2020	2021
4602908	572027	DEBT INTEREST - SUNTRUST LOC		
		Series 2010		
4602908	571026	DEBT PRINCIPAL - ELEC 2010	250,000	255,000
4602908	572026	DEBT INTEREST - ELEC 2010	109,920	101,840
		Total series 2010	359,920	356,840
		Series 2014		
4602908	571028	DEBT PRINCIPAL - ELEC 2014	345,000	355,000
4602908	572028	DEBT INTEREST - ELEC 2014	167,757	158,166
		Total series 2014	512,757	513,166
		Series 2014A		
4602908	571029	DEBT PRINCIPAL - ELEC 2014A	265,000	275,000
4602908	572029	DEBT INTEREST - ELEC 2014A	143,446	135,373
		Total series 2014A	408,446	410,373
		Series 2016		
4602908	571030	DEBT PRINCIPAL - ELEC 2016	640,000	670,000
4602908	572030	DEBT INTEREST - ELEC 2016	591,418	558,668
		Total series 2016	1,231,418	1,228,668
		Series 2019		
4602908	571037	DEBT PRINCIPAL - ELEC 2019	400,000	1,360,000
4602908	572037	DEBT INTEREST - ELEC 2019	636,464	846,510
		Total series 2019	1,036,464	2,206,510
		Series 2030		
		Annual Principal payment	0	0
		Annual Interest Payment	0	0
		Total series 2030	0	0
		Series 2036		
		Annual Principal payment	0	0
		Annual Interest Payment	0	0
		Total series 2036	0	0
		Series 2037		
		Annual Principal payment	0	0
		Annual Interest Payment	0	0
		Total series 2037	0	0
		Series 2038		
		Annual Principal payment	0	0
		Annual Interest Payment	0	0
		Total series 2038	0	0

Annual Principal payment	0	0
Annual Interest Payment	0	0
Total series 20?	0	0

Total Annual Principal Expense	1,900,000	2,915,000
Total Annual Interest Expense	1,649,005	1,800,557
DEBT OTHER COSTS - PAY AGENT		
Total Annual Expense	3,549,005	4,715,557
Total Outstanding Principal	53,030,000	50,020,000

Payment Date	Payment Year	Principal Maturities
	2006	
	2007	
	2008	
4/1	2009	
10/1	2009	
4/1	2010	
10/1	2010	
4/1	2011	
10/1	2011	150,000
4/1	2012	
10/1	2012	200,000
4/1	2013	
10/1	2013	205,000
4/1	2014	
10/1	2014	210,000
4/1	2015	
10/1	2015	220,000
4/1	2016	
10/1	2016	225,000
4/1	2017	
10/1	2017	235,000
4/1	2018	
10/1	2018	240,000
4/1	2019	
10/1	2019	250,000
4/1	2020	
10/1	2020	255,000

4/1	2021	
10/1	2021	265,000
4/1	2022	
10/1	2022	270,000
4/1	2023	
10/1	2023	280,000
4/1	2024	
10/1	2024	290,000
4/1	2025	
10/1	2025	300,000
4/1	2026	
10/1	2026	310,000
4/1	2027	
10/1	2027	320,000
4/1	2028	
10/1	2028	330,000
4/1	2029	
10/1	2029	340,000
4/1	2030	
10/1	2030	350,000
4/1	2031	
10/1	2031	
4/1	2032	
10/1	2032	
4/1	2033	
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10/1	2055	
4/1	2056	
10/1	2056	
4/1	2057	
10/1	2057	
4/1	2058	
10/1	2058	
4/1	2059	
10/1	2059	
4/1	2060	
10/1	2060	
Totals		5,245,000
O/S balance	@ 2022	2,790,000

2022	2023	2024	2025	2026	2027	2028
	21000	21000	0	0	0	0
265,000	270,000	280,000	290,000	300,000	310,000	320,000
93,520	84,960	76,160	67,040	57,600	47,840	37,760
358,520	354,960	356,160	357,040	357,600	357,840	357,760
365,000	375,000	385,000	395,000	405,000	415,000	430,000
148,302	138,165	127,753	117,066	106,106	94,873	83,296
513,302	513,165	512,753	512,066	511,106	509,873	513,296
280,000	290,000	300,000	310,000	315,000	325,000	335,000
127,076	118,554	109,733	100,614	91,270	81,701	71,834
407,076	408,554	409,733	410,614	406,270	406,701	406,834
705,000	740,000	775,000	815,000	860,000	900,000	915,000
524,293	488,168	450,293	410,543	368,668	338,168	320,018
1,229,293	1,228,168	1,225,293	1,225,543	1,228,668	1,238,168	1,235,018
1,395,000	1,450,000	1,485,000	1,530,000	1,585,000	1,640,000	1,680,000
798,573	749,070	698,001	645,540	591,339	535,224	477,456
2,193,573	2,199,070	2,183,001	2,175,540	2,176,339	2,175,224	2,157,456
0	0	0	0	0	0	0
0	0	0	0	0	0	0
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0	0	0	0	0	0	0
0	0	0	0	0	0	0

3,010,000	3,125,000	3,225,000	3,340,000	3,465,000	3,590,000	3,680,000
1,691,764	1,599,917	1,482,940	1,340,803	1,214,983	1,097,806	990,364
	1,000	750	750	750	750	750
4,701,764	4,704,917	4,687,690	4,681,553	4,680,733	4,688,556	4,671,114
46,895,000	43,670,000	40,330,000	36,865,000	33,275,000	29,595,000	25,800,000

Series 2010 (Signature)			Series 2014 (Pinnacle Public Finance)			
Interest 3.20%	Total P & I	O/S Balance	Principal Maturities	Interest 2.74%	Total P & I	O/S Balance
		5,245,000				7,680,000
	0	5,245,000			0	7,680,000
	47,088	5,245,000			0	7,680,000
47,088						
83,920	315,440	5,095,000			0	7,680,000
81,520						
81,520	359,840	4,895,000			0	7,680,000
78,320						
78,320	358,360	4,690,000			0	7,680,000
75,040						
75,040	356,720	4,480,000	95,000	63,130	262,045	7,585,000
71,680				103,915		
71,680	359,840	4,260,000	310,000	103,915	513,582	7,275,000
68,160				99,667		
68,160	357,720	4,035,000	320,000	99,667	514,951	6,955,000
64,560				95,284		
64,560	360,360	3,800,000	325,000	95,284	511,115	6,630,000
60,800				90,831		
60,800	357,760	3,560,000	335,000	90,831	512,073	6,295,000
56,960				86,242		
56,960	359,920	3,310,000	345,000	86,242	512,757	5,950,000
52,960				81,515		
52,960	356,840	3,055,000	355,000	81,515	513,166	5,595,000

2029	2030	2031	2032	2033	2034	2035
0	0	0	0	0	0	0
330,000	340,000	350,000	0	0	0	0
27,360	16,640	5,600	0	0	0	0
357,360	356,640	355,600	0	0	0	0
440,000	450,000	465,000	475,000	490,000	505,000	0
71,376	59,183	46,648	33,771	20,550	6,918	0
511,376	509,183	511,648	508,771	510,550	511,918	0
345,000	355,000	365,000	380,000	390,000	400,000	0
61,668	51,203	40,440	29,302	17,790	5,980	0
406,668	406,203	405,440	409,302	407,790	405,980	0
935,000	955,000	985,000	1,015,000	1,045,000	1,070,000	1,105,000
300,934	276,675	247,575	217,575	186,675	154,950	122,325
1,235,934	1,231,675	1,232,575	1,232,575	1,231,675	1,224,950	1,227,325
1,745,000	1,760,000	1,770,000	1,820,000	1,890,000	1,955,000	985,000
417,861	356,874	295,452	232,986	168,432	101,529	50,373
2,162,861	2,116,874	2,065,452	2,052,986	2,058,432	2,056,529	1,035,373
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
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0	0	0	0	0	0	0

3,795,000	3,860,000	3,935,000	3,690,000	3,815,000	3,930,000	2,090,000
879,199	760,575	635,715	513,634	393,447	269,377	172,698
750	750	750	750	750	750	750
4,674,949	4,621,325	4,571,465	4,204,384	4,209,197	4,200,127	2,263,448
21,940,000	18,005,000	14,315,000	10,500,000	6,570,000	4,480,000	2,385,000

Series 2014A (Pinnacle Public Finance)				Series 2016 (Bank of New York)		
Principal Maturities	Interest 2.99%	Total P & I	O/S Balance	Principal Maturities	Interest 2.74%	Total P & I
			5,900,000			
		0	5,900,000			
		0	5,900,000			
		0	5,900,000			
		0	5,900,000			
		0	5,900,000			
		0	5,900,000			
		0	5,900,000			
		72,524	5,900,000			
	72,524					
215,000	88,205	388,196	5,685,000			
	84,991					
245,000	84,991	411,319	5,440,000		246,211	565,045
	81,328				318,834	
250,000	81,328	408,918	5,190,000		318,834	637,668
	77,590				318,834	
260,000	77,590	411,294	4,930,000	605,000	318,834	1,227,543
	73,704				303,709	
265,000	73,704	408,446	4,665,000	640,000	303,709	1,231,418
	69,742				287,709	
275,000	69,742	410,373	4,390,000	670,000	287,709	1,228,668

[illegible]

2036	2037	2038	2039	2040	2041	2042
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
1,140,000	1,175,000	1,210,000	0	0	0	0
88,650	53,925	18,150	0	0	0	0
1,228,650	1,228,925	1,228,150	0	0	0	0
955,000	0	0	0	0	0	0
16,617	0	0	0	0	0	0
971,617	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
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0	0	0	0	0	0	0
0	0	0	0	0	0	0
0	0	0	0	0	0	0
2,095,000	1,175,000	1,210,000	0	0	0	0
105,267	53,925	18,150	0	0	0	0
750	750	750	0	0	0	0
2,201,017	1,229,675	1,228,900	0	0	0	0
1,210,000	-	-	-	-	-	-

ork)	Series 2019 (TD Bank)				Bond Duration (ye	
					Initial Value of Bc	
O/S Balance	Principal Maturities	Interest 3.48%	Total P & I	O/S Balance	Period Interest	Period Principal
18,260,000				25,405,000		
				25,405,000		
				25,405,000		
				25,405,000		
				25,405,000		
				25,405,000		
				25,405,000		
18,260,000				25,405,000		
18,260,000				25,405,000		
17,655,000				25,405,000		
17,015,000	400,000	201,377	1,036,464	25,005,000		
		435,087				
16,345,000	1,360,000	435,087	2,206,510	23,645,000		

		411,423				
15,640,000	1,395,000	411,423	2,193,573	22,250,000		
		387,150				
14,900,000	1,450,000	387,150	2,199,070	20,800,000		
		361,920				
14,125,000	1,485,000	361,920	2,183,001	19,315,000		
		336,081				
13,310,000	1,530,000	336,081	2,175,540	17,785,000		
		309,459				
12,450,000	1,585,000	309,459	2,176,339	16,200,000		
		281,880				
11,550,000	1,640,000	281,880	2,175,224	14,560,000		
		253,344				
10,635,000	1,680,000	253,344	2,157,456	12,880,000		
		224,112				
9,700,000	1,745,000	224,112	2,162,861	11,135,000		
		193,749				
8,745,000	1,760,000	193,749	2,116,874	9,375,000		
		163,125				
7,760,000	1,770,000	163,125	2,065,452	7,605,000		
		132,327				
6,745,000	1,820,000	132,327	2,052,986	5,785,000		
		100,659				
5,700,000	1,890,000	100,659	2,058,432	3,895,000		
		67,773				
4,630,000	1,955,000	67,773	2,056,529	1,940,000		
		33,756				
3,525,000	985,000	33,756	1,035,373	955,000		
		16,617				
2,385,000	955,000	16,617	971,617	-	1	1
					2	
1,210,000					3	2
					4	
-					5	3
					6	
					7	4
					8	
					9	5
					10	
					11	6
					12	
					13	7
					14	
					15	8
					16	
					17	9
					18	
					19	10
					20	

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0	0	0	0	0	0	0
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Page 360 of 460

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	Series ?					Total El	
	Bond Duration (years)			Payments/Year			
	Initial Value of Bond			Interest Rate			
O/S Balance	Period	Principal Maturities	Interest	Total P & I	O/S Balance	Principal Maturities	Interest Maturities
						-	-
						-	-
						-	-
						-	-
						-	-
						-	-
						-	-
						-	-
						-	-
						-	-
						-	-
						-	47,088
						150,000	83,920
						-	81,520
						200,000	81,520
						-	78,320
						205,000	78,320
						-	75,040
						305,000	138,170
						-	248,119
						745,000	263,800
						-	252,818
						790,000	499,029
						-	560,006
						810,000	560,006
						-	548,055
						1,440,000	548,055
						-	520,615
						1,900,000	721,992
						-	927,013
						2,915,000	927,013

[illegible]

Electric Debt	
Total	O/S
P & I	Balance
	62,490,000
-	62,490,000
-	
-	62,490,000
-	
-	62,490,000
-	
47,088	62,490,000
-	
315,440	62,340,000
-	
359,840	62,140,000
-	
358,360	61,935,000
-	
691,289	61,630,000
-	
1,261,618	60,885,000
-	
1,849,035	60,095,000
-	
1,918,061	59,285,000
-	
2,508,670	57,845,000
-	
3,549,005	55,945,000
-	
4,715,557	53,030,000

Account Description	FY2023 (Actual + Budget)		FY2024	FY2025
Demand Annual Escalation				0.01
Annual Escalation- INTRAGOVT XFERS - DES TRUST			-9.6%	5.98%
Annual Escalation- INTRAGOVT XFERS - CAP PROJ				
INTRAGOVT XFERS - GENERAL FUND	\$ 2,824,160	\$ 2,677,438	\$ 2,704,212	
INTRAGOVT XFERS - DES TRUST	\$ 130,058	\$ 117,619	\$ 124,654	
INTRAGOVT XFERS - CAP PROJ	\$ 196,923	\$ 142,308	\$ 161,538	
INTRAGOVT XFERS - WTR & SEWER	\$ -	\$ -	\$ -	
INTRAGOVT XFERS - EL REV BND07	\$ -	\$ -	\$ -	
INTRAGOVT XFERS - WATER R&R	\$ -	\$ -	\$ -	
INTRAGOVT XFERS - GENERAL INS	\$ -	\$ -	\$ -	

	FY2026		FY2027		FY2028		FY2029		FY2030		FY2031
	0.01		0.01		0.01		0.01		0.01		0.01
	1.07%		1.07%		1.05%		1.06%		1.07%		1.10%
							3.00%		3.00%		3.00%
\$	2,731,255	\$	2,758,567	\$	2,786,153	\$	2,814,014	\$	2,842,154	\$	2,870,576
\$	125,983	\$	127,336	\$	128,673	\$	130,038	\$	131,428	\$	132,874
\$	176,923	\$	176,923	\$	201,923	\$	207,981	\$	214,220	\$	220,647
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

	FY2032		FY2033		FY2034		FY2035		FY2036		FY2037
	0.01		0.01		0.01		0.01		0.01		0.01
	1.06%		1.12%		1.12%		1.12%		1.12%		1.12%
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
\$	2,899,282	\$	2,928,275	\$	2,957,557	\$	2,987,133	\$	3,017,004	\$	3,047,174
\$	134,284	\$	135,784	\$	137,302	\$	138,836	\$	140,387	\$	141,956
\$	227,266	\$	234,084	\$	241,107	\$	248,340	\$	255,790	\$	263,464
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

	FY2038		FY2039		FY2040		FY2041		FY2042		FY2043
	0.01		0.01		0.01		0.01		0.01		0.01
	1.12%		1.12%		1.12%		1.12%		1.12%		1.12%
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
\$	3,077,646	\$	3,108,422	\$	3,139,507	\$	3,170,902	\$	3,202,611	\$	3,234,637
\$	143,542	\$	145,146	\$	146,767	\$	148,407	\$	150,066	\$	151,742
\$	271,368	\$	279,509	\$	287,894	\$	296,531	\$	305,427	\$	314,590
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

	FY2044		FY2045		FY2046		FY2047		FY2048		FY2049
	0.01		0.01		0.01		0.01		0.01		0.01
	1.12%		1.12%		1.12%		1.12%		1.12%		1.12%
	3.00%		3.00%		3.00%		3.00%		3.00%		3.00%
\$	3,266,983	\$	3,299,653	\$	3,332,650	\$	3,365,976	\$	3,399,636	\$	3,433,632
\$	153,438	\$	155,152	\$	156,886	\$	158,639	\$	160,411	\$	162,204
\$	324,027	\$	333,748	\$	343,761	\$	354,073	\$	364,696	\$	375,636
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

FY2050	Comments
0.01	Escalation percentage given for years 2024-2033 in CWP 10-year pro-forma. Percentage
1.12%	Escalation percentage applies after 2033, based on % increase between 2032-2033.
3.00%	Escalation percentage applies after 2028.
\$	3,467,968 Annual increase by the demand escalation.
\$	164,016 First 10 years of data extracted from the CWP 10-year pro forma. Remaining forecast to
\$	386,905 From CWP 10-year pro-forma: "Linked to CIP then 3% after".
\$	-
\$	-
\$	-
\$	-

è continued out to 2050.

› 2050 created by increasing each year by the annual growth for 2032-2033 (1.1%).

Account Description	FY2023 (Actual		FY2024		FY2025		FY2026	
	+ Budget)							
CIP - DUKE ENERGY FAIRBANKS UG	\$	-	\$	-	\$	-	\$	-
CIP - FIBER OPTIC LINES UG	\$	-	\$	-	\$	-	\$	-
CIP - SUBSTATION TRANSFORMERS	\$	-	\$	-	\$	650,000	\$	500,000
CIP - SOLAR AWNING PROJECT	\$	-	\$	-	\$	-	\$	-
CIP - EL SUBSTATION UPGRADES	\$	-	\$	-	\$	-	\$	-
CIP - BULK EL METER REPLACEMEN	\$	500,000	\$	-	\$	-	\$	-

FY2027		FY2028		FY2029		FY2030		FY2031		FY2032		FY2033	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

FY2034		FY2035		FY2036		FY2037		FY2038		FY2039		FY2040	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

FY2041		FY2042		FY2043		FY2044		FY2045		FY2046		FY2047	
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000	\$	500,000
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

	FY2048		FY2049		FY2050	Comments
\$	-	\$	-	\$	-	
\$	-	\$	-	\$	-	
\$	500,000	\$	500,000	\$	500,000	From CIP then continues afterwards.
\$	-	\$	-	\$	-	
\$	-	\$	-	\$	-	
\$	-	\$	-	\$	-	

Account Description	FY2023 (Actual + Budget)		FY2024		FY2025		FY2026
CIP - CITYWIDE UNDERGROUNDING	\$	7,392,000	\$	7,761,600	\$	8,149,680	\$ 8,557,164
CIP - DUKE ENERGY FAIRBANKS UG	\$	-	\$	-	\$	-	\$ -
CIP - FIBER OPTIC LINES UG	\$	-	\$	-	\$	-	\$ -

FY2027		FY2028		FY2029		FY2030	FY2031	FY2032	FY2033	FY2034	FY2035
\$	8,985,022	\$	9,434,273	\$	9,905,987	\$	10,401,286	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
\$	-	\$	-	\$	-	\$	-	\$	-	\$	-

FY2036	FY2037	FY2038	FY2039	FY2040	FY2041	FY2042	FY2043	FY2044	FY2045	FY2046	FY2047	FY2048
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

FY2049 FY2050		Comments
\$ -	\$ -	"Assumed completed in FY30. Linked to CIP and inflates at 5% until done"
\$ -	\$ -	
\$ -	\$ -	

Table 2

Energy Sales by Customer Class (kWh)	2019	2020
1 Residential	190,270,749	192,515,490
2 General Service Non-Demand	11,551,722	10,874,859
3 General Service Non-Demand (100% LF)	453,108	456,874
4 General Service Demand	139,961,499	137,539,052
5 General Service Demand TOU	58,935,480	56,451,434
6 Public Authority	22,732,320	24,286,841
7 Lighting	2,113,590	2,087,998
8 Total	426,018,468	424,212,548
Total Residential	190,270,749	192,515,490
Percent Residential	44.7%	45.4%
Total Commercial, Public Authority & Lighting	235,747,719	231,697,058
Percent Commercial, Public Authority & Lighting	55.3%	54.6%

Table 3

	Test Year FY2020
Operating Expenses	
1 Operations	
2 Bulk Power	\$ 18,696,363
3 Gross Receipts Tax	\$ 1,152,998
4 Electric Capital	\$ 1,180,000
5 Other Operations	\$ 1,836,636
6 Total Operations	\$ 22,865,997
7 Undergrounding	\$ 4,425,000
8 Other Capital Projects	\$ -
9 Tree Trimming	\$ 656,996
10 Warehousing	\$ 378,031
11 Street Lighting	\$ 480,000
12 Utility Billing	\$ 713,923
13 Meter Servicing	\$ 388,618
14 Administration	\$ 1,148,486
15 Total Operating Expenses	\$ 31,057,051
Other Revenue Requirements	
16 Debt Service	\$ 4,791,526
17 Interfund Admin Services	\$ 1,728,412
18 Transfer to General Fund	\$ 2,545,301

19 Other Transfers	\$	255,698
20 Contingency	\$	2,219,838
21 Replenish Cash Reserves	\$	2,314,351
22 Total Other Revenue Requirements	\$	13,855,126
23 TOTAL REVENUE REQUIREMENTS	\$	44,912,177
Average Revenue (\$/kWh)	\$	0.106
Average Power Cost (\$/kWh)	\$	0.044
Average Rev Req - Non Power Cost (\$/kWh)	\$	0.062

Table 6

Line No.	Description	General Service	
		Residential	Non-Demand
17	Total Production Cost	\$ 14,344,794	\$ 880,253
71	Total Cost of Service	\$ 26,995,073	\$ 1,736,143
72	Check		
73	Total Unit Cost (\$/kWh)	\$ 0.142	\$ 0.153
74	Base Rate Unit Cost (\$/kWh)	\$ 0.142	\$ 0.153
	Production Cost (\$/kWh)	\$ 0.075	\$ 0.078
	Non Production Cost (\$/kWh)	\$ 0.067	\$ 0.076
	Percentage of Production Cost	47.6%	2.9%
	Percentage of Total Cost of Service	49.8%	3.2%
		Total	
Residential Rates			
	Production Cost (\$/kWh)	\$ 0.075	
	Non Production Cost (\$/kWh)	\$ 0.067	
	Percentage of Production Cost	47.6%	
	Percentage of Total Cost of Service	49.8%	
Commerical, Public Authority, Lighting Rates			
	Production Cost (\$/kWh)	\$ 0.068	
	Non Production Cost (\$/kWh)	\$ 0.050	
	Production % of Total Cost	52.4%	
	Non-Production % of Total Cost of Service	50.2%	

Table 5

2022 Energy Sales by Customer Class (kWh)	General Service	
	Residential	Non-Demand
	190,210,277	11,319,140

2021	2022	2023 Projected	Average 2020 to 2023	Average 2022 to 2023
190,210,277	190,210,277			
11,319,140	11,319,140			
458,633	458,633			
137,814,702	137,814,702			
57,929,015	57,929,015			
22,358,817	22,358,817			
2,090,327	2,090,327			
422,180,911	422,180,911	422,180,911		
190,210,277	190,210,277			
45.1%	45.1%		45.0%	45.1%
231,970,634	231,970,634			
54.9%	54.9%		55.0%	54.9%

<u>FY2021 Actual</u>	<u>FY2022 Budget</u>	<u>FY2023 Budget</u>
----------------------	----------------------	----------------------

\$ 20,633,965	\$ 19,678,403	\$ 27,274,436
\$ 1,117,688	\$ 1,099,879	\$ 1,337,360
\$ 932,165	\$ 1,230,982	\$ 1,360,211
\$ 1,774,959	\$ 2,218,889	\$ 2,375,492
\$ 24,458,777	\$ 24,228,153	\$ 32,347,499
\$ 5,229,881	\$ 6,439,743	\$ 7,392,000
\$ 572,860	\$ 2,209,000	\$ 500,000
\$ 652,192	\$ 658,947	\$ 660,071
\$ 330,775	\$ 309,146	\$ 327,621
\$ 92,643	\$ 510,000	\$ 539,000
\$ 784,270	\$ 872,596	\$ 830,286
\$ 208,300	\$ 252,761	\$ 229,330
\$ 1,393,692	\$ 1,466,900	\$ 1,643,965
\$ 33,723,390	\$ 36,947,246	\$ 44,469,772
\$ 5,071,814	\$ 4,783,940	\$ 4,725,917
\$ 1,740,681	\$ 1,696,582	\$ 1,775,965
\$ 2,470,947	\$ 2,428,037	\$ 2,824,160

\$ 715,317	\$ 249,747	\$ 368,058
\$ -	\$ 1,033,364	\$ 89,128
\$ -	\$ -	\$ -
\$ 9,998,759	\$ 10,191,670	\$ 9,783,228
\$ 43,722,149	\$ 47,138,916	\$ 54,253,000

\$ 0.104	\$ 0.112	\$ 0.129	\$ 0.107	\$ 0.120
\$ 0.049	\$ 0.047	\$ 0.065	\$ 0.047	\$ 0.056
\$ 0.055	\$ 0.065	\$ 0.064	\$ 0.061	\$ 0.064

General Service

Non-Demand (100% LF)	General Service Demand	Public Authority	Lighting	Total
\$ 28,244	\$ 13,182,844	\$ 1,505,820	\$ 165,079	\$ 30,107,034
\$ 48,757	\$ 22,344,325	\$ 2,573,529	\$ 555,173	\$ 54,253,000
\$ 0.106	\$ 0.114	\$ 0.115	\$ 0.266	\$ 0.129
\$ 0.106	\$ 0.114	\$ 0.115	\$ 0.266	\$ 0.129
\$ 0.062	\$ 0.067	\$ 0.067	\$ 0.079	\$ 0.071
\$ 0.045	\$ 0.047	\$ 0.048	\$ 0.187	\$ 0.057
0.1%	43.8%	5.0%	0.5%	100.0%
0.1%	41.2%	4.7%	1.0%	100.0%

General Service

Non-Demand (100% LF)	General Service Demand	Public Authority	Lighting	Total
458,633	195,743,717	22,358,817	2,090,327	422,180,911

Rate calculations are based on the data tables from the Oct 2022 Cost of Service Study. The table number with the source data are noted here.

Comment

Note - final allocation GS TOU sales is in GS class

e

Account Description	FY2018		FY2019		FY2020
RES 440 LIGHTING	\$	14,571	\$	14,545	\$ 14,572
RES 440 DECORATIVE LIGHTING	\$	-	\$	-	\$ -
RES CUSTOMER CHARGE	\$	2,035,870	\$	2,232,225	\$ 2,462,962
RES 440 FUEL COST RECOV.	\$	5,932,911	\$	5,665,389	\$ 4,089,051
RES 440 ENERGY CHARGE	\$	13,572,495	\$	14,302,733	\$ 14,497,609
COMM 442 LIGHTING	\$	79,166	\$	76,868	\$ 73,204
COMM 442 DEMAND PRIMARY	\$	6,163	\$	5,464	\$ 5,478
COMM 442 DEMAND SECOND	\$	7,808,276	\$	8,141,934	\$ 8,023,911
COMM 442 N-DEMAND PRIMARY	\$	-	\$	-	\$ -
COMM 442 N-DEMAND SECOND	\$	1,005,659	\$	1,063,984	\$ 1,029,555
COMM 442 N-DEMAND 100% LD	\$	23,350	\$	24,949	\$ 25,892
COMM 442 FUEL COST RECOV.	\$	6,814,681	\$	6,345,040	\$ 4,445,036
COMM 442 DEMAND PRI TOU	\$	829,446	\$	777,907	\$ 705,967
COMM 442 DEMAND 2ND TOU	\$	2,079,029	\$	2,049,405	\$ 1,984,358
P.A. 445 LIGHTING	\$	289,324	\$	289,320	\$ 289,344
P.A. 445 DEMAND PRIMARY	\$	-	\$	-	\$ -
P.A. 445 DEMAND SECOND	\$	834,798	\$	832,591	\$ 820,200
P.A. 445 N-DEMAND PRIMARY	\$	-	\$	-	\$ -
P.A. 445 N-DEMAND SECOND	\$	127,840	\$	132,565	\$ 132,302
P.A. 445 N-DEMAND 100% LD	\$	8,014	\$	8,452	\$ 8,757
P.A. 445 FUEL COST RECOV	\$	777,528	\$	718,948	\$ 570,770
P.A. 445 DEMAND PRI TOU	\$	352,377	\$	392,208	\$ 475,521
PA 445 DEMAND 2ND TOU	\$	25,604	\$	26,646	\$ 26,220
ELECTRIC FRANCHISE FEE	\$	2,557,026			\$ 2,380,842
GROSS RECEIPTS TAX	\$	1,158,310	\$	1,171,467	\$ 1,078,500
ELECTRIC UTILITY TAX	\$	3,369,149	\$	3,504,605	\$ 3,464,135
 TOTAL REVENUES (\$)	\$	49,701,585	\$	47,777,244	\$ 46,604,184
Total \$/kwh	\$	0.1199	\$	0.1121	\$ 0.1099
 Residential (kWh)		182,963,737		190,270,749	192,515,490
Commercial (kWh)		207,474,073		210,901,809	205,322,219
Public Authority (kWh)		22,132,769		22,732,320	24,286,841
Street Lighting (kWh)		2,123,948		2,113,590	2,087,998
Total kWh sold:		414,694,527		426,018,468	424,212,548
 % of total for each class					
Residential		44.12%		44.66%	45.38%
Commercial		50.03%		49.51%	48.40%
Public Authority		5.34%		5.34%	5.73%
Street Lighting		0.51%		0.50%	0.49%

	FY2021	FY 2022
\$	14,634	\$ 13,646
\$	-	
\$	2,462,541	\$ 2,462,261
\$	4,694,603	\$ 10,289,112
\$	14,274,694	\$ 14,255,183
\$	73,260	\$ 71,387
\$	4,663	\$ 492,055
\$	8,060,248	\$ 9,654,548
\$	-	\$ -
\$	1,061,448	\$ 1,184,788
\$	25,957	\$ 25,726
\$	5,318,156	\$ 13,512,685
\$	807,484	\$ 865,254
\$	1,950,393	\$ 1,926,877
\$	290,076	\$ 289,992
\$	-	
\$	823,337	\$ 1,099,195
\$	-	
\$	130,908	\$ 133,511
\$	8,719	\$ 8,697
\$	606,070	\$ 1,545,957
\$	378,096	\$ 403,888
\$	25,567	\$ 17,351
\$	2,460,651	\$ 3,495,225
\$	1,114,653	\$ 1,583,306
\$	3,489,686	\$ 3,877,478
\$	48,075,844	\$ 67,208,121
\$	0.1139	\$ 0.1440
	190,210,277	189,514,646
	207,521,490	246,421,403
	22,358,817	28,599,957
	2,090,327	2,075,476
	422,180,911	466,611,482

Five year historical revenue and energy sales data is used to calculate the contribution of each class to the total revenue. The average percentage contribution is used to break the total Quanta Technology pIRP energy results into each class. The data and calculations were performed in the workbook "Electric Revenues by Class - FY 2024 Forecast Model v2.xlsx", sheet 'Summary by GL Account'.

Average %

45.05%	40.62%	43.97%
49.15%	52.81%	49.98%
5.30%	6.13%	5.56%
0.50%	0.44%	0.49%

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Account Description	2023	2024	2025	2026	2027	2028
Annualized Cost (\$/MWh)	\$ 71.65	\$ 71.80	\$ 72.16	\$ 73.63	\$ 75.03	\$ 76.83
Bulk Power Cost (\$M)	\$22.61	\$22.73	\$23.11	\$24.18	\$25.21	\$26.46
Total Consumption (MWh)	424,115	424,921	425,232	425,703	425,714	425,931

Output of Quanta Technology pIRP tool. Which provides revenue requirement and consumption data. Which is the foundation for our revenue and bulk power calculations.

2029	2030	2031	2032	2033	2034	2035	2036	2037
\$ 77.62	\$ 77.36	\$ 76.16	\$ 80.40	\$ 83.72	\$ 89.40	\$ 90.86	\$ 106.57	\$ 111.55
\$27.26	\$27.65	\$27.61	\$29.89	\$31.82	\$34.75	\$35.93	\$42.60	\$44.68
425,732	425,797	424,993	424,267	423,758	422,864	422,286	421,420	420,325

2038	2039	2040	2041	2042	2043	2044	2045	2046
\$ 118.92	\$ 126.10	\$ 132.97	\$ 133.01	\$ 132.83	\$ 132.22	\$ 131.33	\$ 127.07	\$ 130.90
\$47.76	\$50.90	\$54.07	\$54.57	\$55.09	\$55.64	\$56.22	\$55.53	\$57.32
419,068	419,025	420,278	422,922	426,417	431,547	437,809	446,031	445,257

2047	2048	2049	2050	Comments
\$ 135.84	\$ 139.99	\$ 138.50	\$ 255.15	IRP output from 2023 IRP Scenario 3D
\$59.67	\$61.67	\$61.14	\$113.20	
444,555	444,061	443,573	444,391	



City of Winter Park Sustainability Action Plan

January 24th, 2024 Draft Revision

Presented by:

Gloria Eby, Natural Resources and Sustainability Director

Sara Miller, Sustainability Manager

Mia Brady, Sustainability Specialist

Keep Winter Park Beautiful & Sustainable Advisory Board

Contents

Background	3
Vision and Purpose	3
History	3
About the 2022 SAP Update	4
Overview	4
2021 SAP Update Community Engagement Process	5
Keep Winter Park Beautiful & Sustainable Advisory Board	5
Highlights and Accomplishments	5
Climate Resiliency	7
Renewable Energy	15
Energy	20
Water	23
Community Engagement & Green Economy	26
Local Government Operations	28
Natural Resources	33
Transportation and Urban Form	40
Waste Management	43
2022 Action Item Tracker List:	46
Glossary	47
Appendix A. Key Assumptions for Renewal Energy Roadmap	51

Background

Vision and Purpose

The 2022 Sustainability Action Plan (SAP) updates and expands upon the City of Winter Park's 2015 SAP. The purpose of the SAP remains the same, to create a roadmap depicting where the city is today and where it would like to be in the future, in regard to sustainability.

The city defines sustainability as responsible and proactive decision-making that minimizes negative impact and maintains balance between social, environmental, and economic growth to ensure a desirable environment for all species now and into the future.

By integrating elements of this plan, Winter Park will:

- Increase quality of life while improving individual and community health
- Become more independent from energy derived from fossil fuels
- Protect and enhance air quality, water quality, and natural systems
- Save money
- Increase economic value

It is the intention of this document to provide high level objectives that are conceptually approved by the City Commission and leadership. The actions listed under each category are put forth as possible avenues for achievement of the approved goals, and do not represent required or prescriptive measures. The plan is a living document intended to evolve over time as the city experiences both progress and challenges.

A progress report will be presented to the City Commission on an annual basis. This annual report will include:

- Summary of progress made toward the previous year's indicators and actions
- Proposed project/action list
- Estimated project costs
- City staff and budget allocations
- Outside funding opportunities

History

On January 14, 2008, the Winter Park City Commission passed a resolution stating the City would pursue measures to become a certified Green Local Government through the [Florida Green Building Coalition](#) (FGBC). In 2009, Public Works Director Troy Attaway hired Tim Maslow to coordinate the city's sustainability efforts and to develop a plan for achieving the certification. In 2011, after working with each department on a multitude of new projects, policies and programs, the city was officially certified as a Green Local Government at the Gold level, also earning the highest score for a local government that year. The SAP was originally drafted based upon the structure provided by the Green Local Government certification.

In 2012, the city's Environmental Review and Keep Winter Park Beautiful (Keep America Beautiful affiliate since 1993) boards merged with a shared focus of improving community sustainability and achieving the Green Local Government Platinum certification. The new Keep Winter Park Beautiful and Sustainable (KWPB&S) Advisory Board held monthly workshops in addition to their regularly scheduled monthly board meetings in an effort to develop and refine the SAP with community involvement. The 2015 SAP, presented by Kris Stenger, Assistant Director of Building, Permitting and Sustainability and Abby Gulden, Sustainability and Permitting Coordinator, was accepted by unanimous vote of the City Commission on February 9, 2015.

2012-2013 KWPB&S Board Members		2014-2015 KWPB&S Board Members	
Mary Dipboye, Chair	James (Bob) Robinson	Michael Poole, Chair	Mark Roush
Stephen Pategas, V. Chair	Pat Schoknecht	Stephen Pategas, V. Chair	Bruce Thomas
Michele Hipp	Julia Tensfeldt	Michele Hipp	Steven DiClemente
Michael Poole	Kent Tse	Raymond Randall	Mary Dipboye
Raymond Randall	Laura Walda	Pat Schoknecht	John Tapp
John Rife	Carol Kostick	Julia Tensfeldt	Fred Kosiewski
Lucy Roberts	Mark Roush	Laura Walda	Cathy Blanton
Joseph Robillard		Carol Shenck (Kostick)	

About the 2022 SAP Update

Overview

The year 2020 was the first target year for many of the 2015 SAP metrics. Due to the COVID-19 pandemic, data from 2020 is not comparable to previous years. For this reason, trend data for the 2021 document were only expressed through the year 2019 (pre-COVID-19 pandemic). The city's progress toward the 2015 SAP Objectives, Indicators, and Actions through 2020 is provided in the 2020 Annual Report available at cityofwinterpark.org/sap.

The 2021 SAP revises baselines, where necessary, for more complete and accurate data collection and analysis. It also includes a new category, Climate Resiliency, to help the City better understand and withstand weather and climate-related risks and vulnerabilities. The update also includes actions to apply a [racial equity lens](#) to ensure a future where race can no longer be used to predict life outcomes and where outcomes for all groups are improved.

During 2021, many programs and goals were suspended due to prior sustainability staff no longer employed at the city. In 2022, the Sustainability Program was moved to the newly created Natural Resources and Sustainability Department. The 2022 SAP revision contains edits made to the 2021 SAP being implemented by the Sustainability Division consisting of the Sustainability Specialist, Sustainability Manager, and Natural Resources and Sustainability Director.

In addition, as a result of the above-mentioned delays, the Department of Natural Resources and Sustainability conducted a comprehensive inventory of all SAP metric indicators to benchmark city status in effort to give the new Department a starting point

on data trend and analysis moving forward. This information is presented in subsequent tables labeled as “**2021 Status**”.

2021 SAP Update Community Engagement Process

The 2021 SAP integrates discussion and feedback from joint virtual KWPB&S Advisory Board work sessions, which allowed for public comments, with the following city advisory boards and respective staff liaisons: Economic Development, Lakes and Waterways, Parks and Recreation, Tree Preservation, Planning and Zoning, and Transportation and Utilities. Additional community input on SAP priorities were gathered using an online survey that had over 200 respondents (over two-thirds were identified as residents). Community input was also gathered from community organizations via an online survey from Hannibal Square Heritage Center, Ideas for Us Orlando, League of Women Voters Orange County, The Nature Conservancy, Winter Park Garden Club, Winter Park History Museum, and Winter Park Public Library.

Keep Winter Park Beautiful & Sustainable Advisory Board

The mission of Keep Winter Park Beautiful and Sustainable (KWPB&S) Advisory Board is to make recommendations to the city commission concerning matters to improve the quality, health, sustainability and aesthetics of our environment in order to create a healthier, more beautiful place to live, work, and play.

2022 KWPB&S Board Members	Appointed By	End of Term
Ben Ellis, Vice Chair	Mayor Anderson	2024
Carey Bond	Commissioner DeCiccio	2023
Mark J Yonker	Commissioner Cruzada	2025
Kay Hudson, Chair	Mayor Anderson	2024
Stephen Pategas	Commissioner Weaver	2025
Rishona S Teres	Commissioner Sullivan	2023
Laura Gustafson-Hullinger	Mayor Anderson	2024

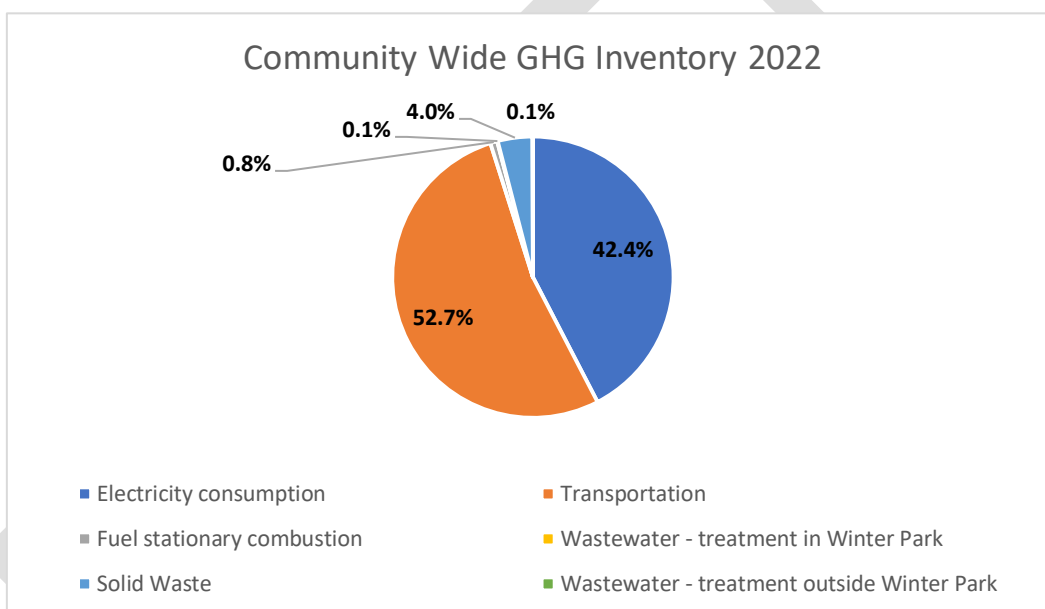
Highlights and Accomplishments

- [East Central Florida Regional Resilience Collaborative](#) Partner and Regional Greenhouse Gas Reduction Advisory Committee Member
- [Solar United Neighbors](#) Partner
- [America In Bloom's](#) 2020 Outstanding Achievement Award for Environmental Efforts
- [SolSmart](#) Gold Designee
- EV Charging Infrastructure Readiness Ordinances ([3203-21](#), [3204-21](#))
- Backyard Chicken Permit Pilot Program Ordinance ([3182-20](#))
- Single-use Products Policy for City Facilities Pilot Program Resolution ([2238-20](#))
- Electrified the Building & Permitting Department's entire fleet
- Purchased 20MW of utility-scale solar, expanding the city's renewable portfolio
- Launched [Green Business Recognition Program](#)

- Collaborations with UCF and Rollins College students on energy benchmarking and Green Business recruitment
- [Rollins College Bonner Leaders Program](#) Partner
- Awarded over \$100,000 in Florida Department of Transportation Keep America Beautiful Florida Affiliates Grants
- Single-stream Residential Recycling Program including [Schedule Reminding and Waste Lookup Tool Digital Service](#)
- Electric Vehicle Charging Stations available to the public throughout the city at no cost
- Residential audit and rebate programs encouraging [energy](#) and [water conservation](#)
- Gas-powered Leaf blower Ban Ordinance ([3230-22](#))
- Sustainability Program moved to the Natural Resources and Sustainability Department where the Program now is addressed as a Division to work collaboratively with Lakes and other Departments
- Sustainability Specialist position was increased from part-time to full-time in order to help the Sustainability Manager and Natural Resources and Sustainability Director fulfill the goals of the SAP
- Awarded \$100,000 from the Department of Environmental Protection to go towards the City's Climate Risk Vulnerability Assessment
- Completed [Energy Efficiency Study](#) on 20 city-owned buildings in 2023
- Sustainability Action Plan adopted January 2023 by Resolution ([2267-23](#))- carbon emission target goals listed as TBD

Climate Resiliency

The [Climate Resiliency](#) category outlines long-term objectives and short-term actions focused on improving the city's capacity to cope with [climate change](#) impacts and to respond in ways that allow the city to maintain its essential functions while also maintaining the capacity for adaptation, learning, and transformation. In 2021, the Intergovernmental Panel on Climate Change (IPCC) *Sixth Assessment Report* asserts that human activities are estimated to have caused approximately 1°C of global warming to date and further warming of 1.5°C and 2.0°C will be exceeded during the 21st century unless deep reductions in CO₂ and other [greenhouse gas](#) emissions occur in the coming decades. Warming at this level is projected to increase the mean temperature of most land and ocean regions, increase hot extremes in most inhabited regions, and increase climate-related risks to health, livelihoods, food security, water supply, human security, and economic growth.



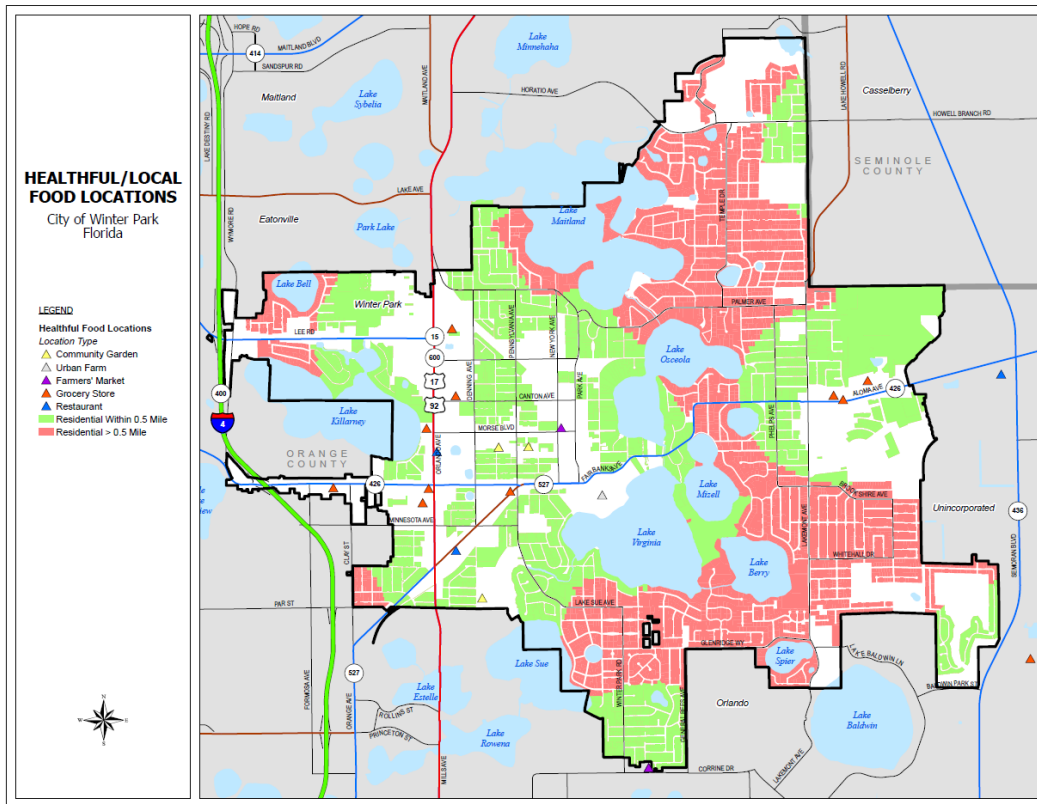
The city's Community-wide Greenhouse Gas (GHG) Emissions Inventory consists of all major direct and indirect GHG emissions generated and occurring within the City of Winter Park's organizational boundary. Transportation-related (50%) and electricity consumption-related (46%) activities contribute the largest proportion of greenhouse gases emissions in the city. As a municipally owned-utility, the Electric Utility is uniquely situated to increase the percentage of its energy portfolio coming from renewable and clean alternative sources. Transitioning to 80% [renewable energy](#), for all electricity and transportation may be more feasible and accessible for the City of Winter Park than many of its neighbors given that it has purchasing power over its electricity and is implementing policies that will ready future developments for a transition to electric vehicles.

In May of 2022, the City of Winter Park was awarded \$100,000 in grant funding from the Florida Department of Environmental Protection to conduct a [Climate Risk Vulnerability Assessment](#) which will identify ways in which the city is susceptible to harm from climate

threats and vulnerabilities. This uses science-driven data about climate threats and works with private/public organizations, the City's [Emergency Management](#) Team, and [FEMA](#). The scientific data is combined with information about the City of Winter Park's residents, assets, and businesses to better understand current and future challenges with long-term operability and recovery.



Food Insecurity, according to the United States Department of Agriculture (USDA), is described as a household-level economic and social condition of limited or uncertain access to adequate food. The identified at-risk groups in the City of Winter Park includes seniors, disabled individuals, low-income residents, and students. In collaboration with the Community Redevelopment Agency, Planning and Zoning Department, and local community partners, access to healthy and affordable food options within a half-mile of impacted residence has been identified. Despite the city's favorable walkability and public transportation infrastructure, these vulnerable groups are still disproportionately affected by a lack of nearby affordable and healthy food options referred to as food deserts. Recognizing the need for targeted interventions, the city aims to close these gaps through community partnerships and on-the-ground education initiatives. This approach aligns with a holistic strategy that involves both community engagement and practical solutions to improve food access and promote nutrition education for the betterment of the identified vulnerable groups. Below is a map illustrating healthy food locations within the city.



Creating a Food Security Strategy Plan, one that strengthens vulnerable populations, is key to providing affordable, healthy food options. Community gardens and farmers markets in conjunction with community partners (such as Center for Health and Well Being and Winter Park Library's Seed Program) and local businesses can aid in the reduction of food deserts identified in Winter Park. Below is a list of programs that is improving food insecurities with the city.

- Winter Park Natural Resources & Sustainability Department - Coordinates with Community Partners to address citizens living with food insecurities - Provides donations to senior communities - Provides educational workshops on growing edible foods at home - Winter Park Police Department & Fire Department - For the past 8 years the Winter Park Police Department along with community partners (St. John Lutheran Church, the First Baptist Church of Winter Park and from residents) has been supplying food to 2 senior communities (emergency pantries at Tranquil Terrace Apartments and Plymouth Apartments) on a monthly basis living with food insecurities https://www.orangeobserver.com/news/2017/aug/17/winter-park-pd-looks-to-help-feed-local-seniors/ - Partners with Lakemont Elementary School in the collection of can goods for senior communities living with food insecurities - Winter Parks & Recreation Department - SNAP accepted at the weekly Winter Park Farmer's Market

○ Parks and Recreation summer camp program incorporates Orange County Public Schools (OCPS) Summer Food Program
○ Summer Feeding - Orange County Public Schools (ocps.net)
• Winter Park Library
○ Master gardening basics: 5 classes, partnership with UF/IFAS Extension orange County
○ Seed library: 3 grow seasons; 9,000 seeds distributed per year
• Rollins College
○ Food pantry for students – Students can either come to the pantry and take what they need or place an order online, which will be processed at the C-Store and stored in a pre-packed bag
○ Sam Justice is staff contact - sjustice@rollins.edu
○ Urban farm collaboration - providing fresh produce to the food pantry on a regular basis
• Winter Park High School
○ Willies Mart – “Willie’s Mart provides students with goods and snacks as well as fresh fruit and produce every month”
○ https://winterparkhs.ocps.net/school_information/willie_s_mart
○ Susan Leeds is staff contact - susan.leeds@ocps.net
• Winter Park Rotary Club
○ Killarney Elementary School (ES) has the greatest population of homeless or unhoused elementary level students in Orange County and is in Winter Park. Rotary volunteers go over every Wednesday to pack weekend bags to send home for students to have food for their family over the weekend. The Club also donates approximately \$10,000 annually to Second Harvest specifically for food delivered to Killarney ES. Killarney ES is the only school where ALL the students are on the daily nutrition program (breakfast, lunch, and afternoon snack every day)
○ https://www.winterparkrotary.com/our-charities/

OBJECTIVES

1. Increase the city's resiliency to the impacts of climate change, ensuring a healthy, livable and sustainable community for present and future generations
2. Ensure a robust and resilient technology infrastructure with high-speed communications available for all
3. Increase proportion of renewable energy in Winter Park Electric Utility's Energy portfolio
4. Reduce community wide greenhouse gas emissions
5. Encourage on-site renewable energy generation for residential and commercial buildings
6. Ensure access to affordable, healthy food options for food security (community gardens, grocery stores or farmers markets)
7. Increase residential and commercial customers knowledge of city's renewable energy portfolio and opportunities for reducing their [carbon footprint](#)
8. Benchmark all indicators to current state of the city given pandemic and operational delays

The Department of Natural Resources and Sustainability conducted a comprehensive inventory of all SAP metric indicators to benchmark city status in effort to give the new Department a starting point on data trend and analysis moving forward. This information is presented in all subsequent tables labeled as “**2021 Status**”.

INDICATORS

	Indicator Description	2012 Baseline	2021 Status	2022 Status	2025 Target	2035 Target	2042 Target	2050 Target
CR-1	Proportion of renewable energy in Winter Park Electric Utility's Energy portfolio ¹ – Baseline Year: 2021 includes Covanta	4%	13%	21.72	23%	80%	89%	100%
CR-2	Community wide greenhouse gas emissions [Tons of carbon dioxide equivalent]– Baseline Year: 2018	398,919	405,394	406,999	355,000	235,000	151,000	58,000
CR-3	WP Electric Utility customers with Solar – Baseline Year: 2012	7	139	154	300	700	950	1300
CR-4	Proportion of Residents within 1/2 mile of affordable, healthy food options – Baseline Year: 2012	-	46%	40%	50%	75%	80%	TBD
CR-5	Undergrounding of Winter Park's electrical Utility ²	-	-	73.1%	85%	100%		

¹Approximations with plans for refinement as reaching 100% target in 2050 is contingent on cost reduction in dispatchable energy from renewable sources as noted in the Key Assumptions Appendix A of the 100% Renewable Initiative Final Report 6.0, 2023.

²Target completion date is no later than 2030.

ACTION

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2022	Conduct Renewable Energy Feasibility Study	Yes	Completed	Sustainability, Quanta, & WP Electric Utility, Public Works
2023	Establish community grants for food security and sustainability initiatives	No	None	Sustainability
2022	Implement an Artificial Turf Ordinance which will help mitigate the number of houses that have artificial turf by addressing stormwater and sustainability concerns	Yes	Yes	Sustainability, Public Works
2022	Adopt Backyard Chicken Program (exp. September 2022) to evaluate program outcomes and possibility of expanding and extending the program	Yes	Yes	Sustainability, Planning
2023	Upon feasibility study results, pass resolution committing the City to at least 80% of all electricity consumed in the City to come from renewable energy resources by feasible target date	No	Initiated	Sustainability, WP Electric Utility
2023	Conduct a Climate Risk and Vulnerability Assessment via FDEP Resilient Florida Program \$100K grant. Upon completion, create Climate Mitigation and Adaptation Plan (CMAP) to include creating resilience hubs within the city reducing impacts of climate change on human health, esp. for most vulnerable communities	No	Initiated	Natural Resources & Sustainability, Emergency Management Team, Pubic Works, IT

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Build a community based sustainable food system which includes education and outreach that promotes seed access, growing edible gardens at home, encourages community supported agriculture, and local food consumption	No	Initiated	Sustainability, Communications
2023	Implement a food security policy. Must have community garden/ farm near most vulnerable areas and educate on reducing consumption of carbon-intensive foods	No	None	Sustainability, GIS
2024	Research and design policies to increase green building standard requirements in residential & commercial developments	No	None	Sustainability, Planning, Building & Permitting, Economic Development
2024	Update Land Development Code, to allow food processing and handling in accordance with F.S. 500.80 (Cottage Food Operations) as a home occupation to encourage local food production	No	None	Planning, Economic Development, Sustainability
Continue Annually	Develop a policy to replace gas-powered leaf blowers with electric alternatives	Yes	Completed	Sustainability, Economic Development
Continue Annually	Evaluate potential for increasing Winter Park Electric Utility's Energy Portfolio coming from renewable resources	Yes	Ongoing	Sustainability, WP Electric Utility
Continue Annually	Conduct Community-wide Greenhouse Gas Emissions Inventory and track proportion of renewables in the WP Electric Utility's portfolio. Continue to report to CWP	Yes	Ongoing	Sustainability

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
Continue Annually	Participate in Regional Sustainability and Resilience Professional Networks (Urban/Southeast/Florida Sustainability Directors Networks, East Central Florida Regional Resilience Collaborative, Good Food Central Florida Regional Policy Council, etc.)	Yes	Ongoing	Department of Natural Resources & Sustainability Dept.
Continue Annually	Provide green building best practices (e.g., energy/water efficiency, tree conservation, waste management) education to building professionals and residents	Yes	Ongoing	Building & Permitting, Sustainability, Urban Forestry
Continue Annually	Energy Conservation Rebate Program	Yes	Ongoing	Sustainability
Continue Annually	Develop recommendations to City Commission that would allow for broadband availability, expanding public WiFi, and enhanced public safety and security	Yes	Ongoing	IT, Sustainability, Planning, Police Dep., Public Works
Continue Annually	Explore opportunities for smart street lights able to gather local environmental data, optimize light energy consumption, and improve public safety	Yes	Ongoing	IT, WP Electric Utility, Planning, Police Dept., Sustainability
Continue Annually	Work with Planning Department to ensure Comprehensive Plan Update incorporates sustainability and resilience related goals, objectives and policies	Yes	Ongoing	Planning, Sustainability

Renewable Electric Utility Supply and Grid Analysis

In prior updates to the SAP, the city adopted a number of Objectives, Indicators, and Actions to drive improved energy efficiency of residential and commercial buildings and to incentivize the use of distributed solar energy in residential and commercial sectors. The city has in recent years purchased a portion of its energy supply from large solar photovoltaic projects, however the majority of its current energy supply is produced by fossil-fueled generators that contribute to greenhouse gas (GHG) and other emissions. With this 2023 update to the SAP, the city adopts a major new initiative to transition the city's electric energy supply to: 80% renewable energy by 2035; 89% renewable energy by 2042 to include an update on technologies available; and 100% renewable energy by 2050.

Prior to adopting these new goals, to transition to a renewable energy supply, the city completed an Integrated Resource Plan (IRP)- a feasibility analysis of the cost and options to transition the power supply to 100% renewable sources. A leading electric industry consulting firm, Quanta Technology, conducted the IRP that includes key assumptions of which are referenced in Appendix A. The IRP developed conservative assumptions and forecasts to assess costs and electric supply technology options from 2024 to 2050 across 18 different future scenarios. Each of the future scenarios included: variations to the forecasted generation costs, fuel costs, energy supply options, growth of customer-owned rooftop solar photovoltaic and electric vehicles (EVs); as well as variations on how rapidly the city would transition to renewable electric supply technologies.

The IRP analysis indicates, under scenario 3D, that city can feasibly transition to 80% renewable supply by 2035 for a cost of power comparable to the cost of continuing with the current fossil-fueled, GHG-emitting generation technologies. The cost projections after 2035 are more uncertain but indicate the city should expect increased power costs to attain the last 20% of its renewable supply. Should continuing on a path to reach a 100% renewable supply prove too costly in future years, such that the associated retail electric rates would exceed 105% of local and/or state averages, the city would adjust its energy supply renewable targets accordingly.

In addition to the city transitioning the electric supply to renewable technologies, the city's electric utility customers are in the process of evolving their energy usage and energy expectations through the adoption of various energy efficient (EE) applications such as smart thermostats/smart appliances that can be timer or remotely controlled; installation of rooftop solar (distributed generation) and battery storage; and the purchase of EVs and associated charging systems, among other changes.

The installation of customer owned rooftop solar generally will result in more solar energy being produced during the daylight hours than those rooftop solar customers consume during the daylight hours. If these rooftop solar owners do not have batteries to store the excess solar energy produced, the excess power from rooftop solar installations will flow backwards, into the city's electrical grid. As number of rooftop solar installations continue to grow, the backflow of power, as well as the normal variations in solar production that occur during daylight hours (i.e., from normal ramp up in solar output during the morning and ramp down in the afternoon, in addition to the rapid solar energy production variations that occur on days with scattered cloud cover), can create power quality problems and other issues for neighbors and the remainder of the utility grid.

The city's current Net Energy Metering (NEM) arrangement provides rooftop solar owners a credit for the excess solar energy that flows back onto the electric grid. The current NEM credit offsets the customer's retail purchases, providing a much higher level of compensation than the actual value of the energy. This premium credit to NEM customers for their excess solar energy results in higher electricity costs for all customers, including customers without rooftop solar installations. While the current cumulative value of the premium paid to NEM customers has only minimal impacts on electricity rates, due to the relatively few, current rooftop solar installations, the cumulative value will increase substantially and have a significant impact on energy rates as more customers add solar rooftop installations and is absent tariff reform.

Growth in the proliferation of customer-owned EV chargers may also: impact power quality; create the need to upgrade the electric system to accommodate the additional energy use; and increase the cost of the city's power supply. As customers add more rooftop solar and EV chargers to the city's grid, mitigation options must be proactively analyzed and implemented to avoid problems. Effective mitigation measures include, among other actions: assisting customers through implementation of EE and demand response (DR) programs (for example, using timers on appliances and EV chargers or effective use of customer-owned batteries); and changing existing electric tariff structures to: better match the utility cost of service, reduce energy consumption in the late afternoon and evening to lower system peak usage, and encourage increased consumption during hours when excess solar power is available. These are a few of the many methods that could be employed to change the time when customers consume their energy.

The following lists of Objectives, Indicators, and Actions summarizes the short-term, mid-term and long-term goals and plans for the city in order to transition to renewable energy supply in a manner that is cost comparable to the current fossil-fueled supply plan.

OBJECTIVES

1. Transition the energy supply of the city's Electric Utility to renewable energy to reduce the city's carbon footprint and reduce the city's dependence on energy derived from fossil fuels.
2. Maintain customer electric rates at rates competitive with other publicly owned utilities in Florida.
3. Develop cost effective programs to enable customers of the city's electric utility to increase their electric energy efficiency (EE) and manage their daily and seasonal peak demand (DR) for electricity.
4. Develop revised retail rates that enable continued growth, aligned with grid needs, of customer owned rooftop solar, energy storage and electric vehicle charging.
5. Develop a resource plan for grid modifications and hosting capabilities and perform periodic review, especially as new technologies become available, and incorporate into the Utility's Strategic Plan.

INDICATORS

	Indicator Description	2023 Baseline	2024 Target	2026 Target	2030 Target	2035 Target
ES-1	Annual renewable energy contribution to the total electric energy supply (%)	21.72%	21.72%	21.72%	50%	80%
ES-2	City residential rates as compared to FL public utilities (city rates/average of comparable utilities, measured in %)	<100%	<105%	<105%	<105%	<105%
ES-3	EE and DR program milestones	Not applicable	Complete studies and develop implementation plan for customer EE and DR programs	Implement programs for customer EE and DR		
ES-4	Milestones to implement changes to rate to enable substantial growth in customer owned distributed solar, distributed storage and electric vehicle charging	Not applicable	Complete rate studies and develop rate design options to enable growth in distributed solar, distributed storage, electric vehicle charging and demand response	Implement new rates as recommended by studies		
ES-5	Electric Utility strategy and grid analyses milestones		Complete a strategic plan, distributed solar and EV hosting capacity analyses and a roadmap for grid modernization			

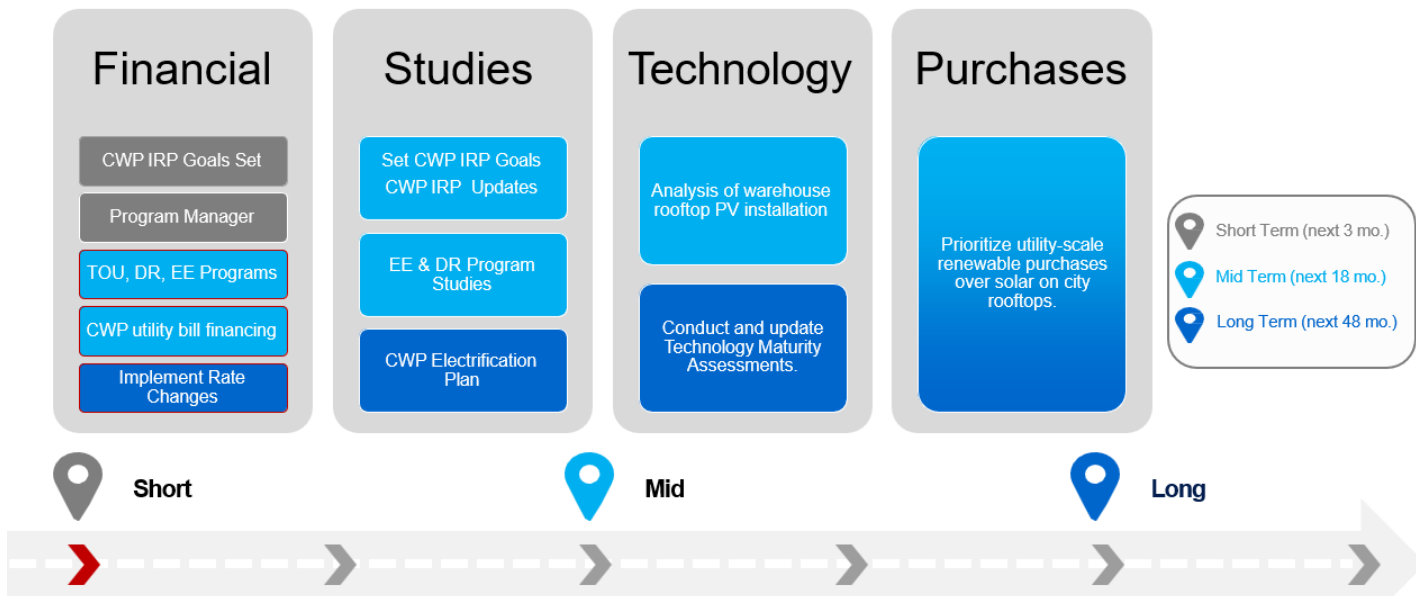
ACTIONS

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Assign a project manager to provide regular updates on the energy supply programs	Yes	Complete	Electric Utility
2024	Complete a baseline and potential study and consider a load research and appliance saturation survey gather better data to assess and design time of use (TOU), EE, and DR programs for residential, and commercial customers.	No	Planned	Sustainability

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2024	Continue to look for opportunities to pool city requirements and partner with FMPA and other Florida utilities for renewable and storage project power purchases and project development	Yes	Ongoing	Electric Utility
2024	Complete study to assess and prioritize which, if any, city owned facilities and/or land should have distributed solar and storage installed	No	Planned	Electric Utility
2024	Complete study to better quantify the expected timing and impacts of customer EV adoption in the city	No	Planned	Electric Utility
2024	Explore options for city to finance, or guarantee customer financing, of rooftop solar and storage additions	No	Planned	Finance
2024	Complete an Electric Utility strategic plan	No	Planned	Electric Utility
2024	Complete distributed solar and EV hosting capacity analyses	No	Planned	Electric Utility
2024	Create a roadmap for grid modernization, such as additions of an distributed energy management system or outage management system	No	Planned	Electric Utility
2025	Complete a study and plan for the electrification of city-owned vehicles	No	Planned	Electric Utility, Water and Waste Water Utilities, Public Works and Transportation, Finance

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2026	Perform regular, periodic updates of IRP (every 2 to 4 years)	No	Planned	Electric Utility
2026	Implement rate changes as recommended in rate study	No	Planned	Finance, Electric Utility
2026	Revise NEM rate credited to customers to better align with city energy supply costs	No	Planned	Finance, Electric Utility
2027	Create a roadmap for the implementation of city--owned Battery Storage for improved resiliency	No	Planned	Electric Utility
2028	Update Roadmap Action items (long-term goals) to the Renewable Electric Utility Supply and Grid Analysis Section of the SAP	No	Planned	Electric Utility, Natural Resources and Sustainability

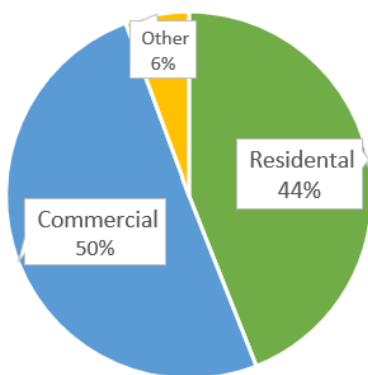
Roadmap Overview:



Energy

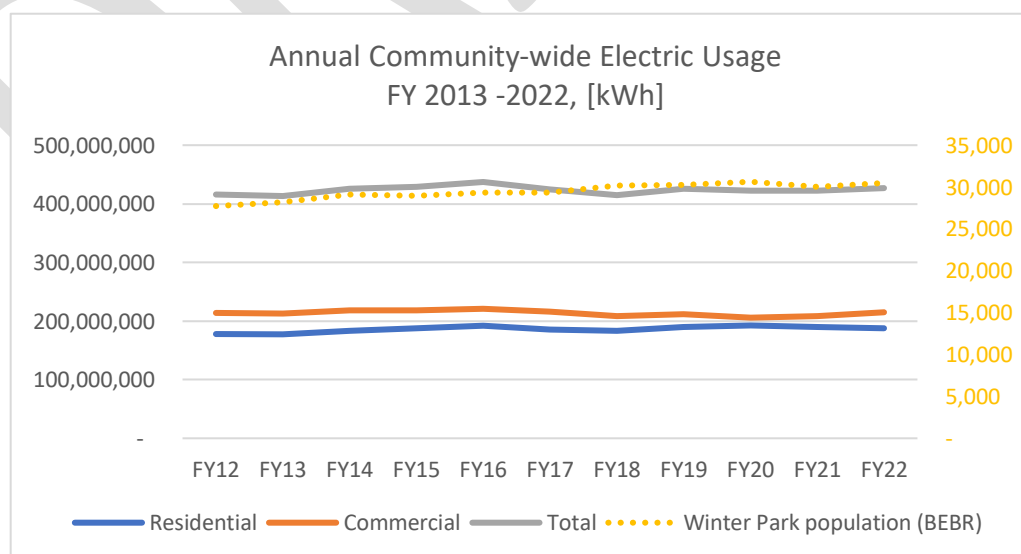
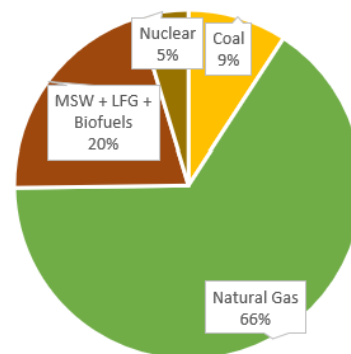
The Energy category focuses on measures that can reduce the environmental consequences of the construction, reconstruction and operation of buildings and infrastructure with a focus on energy efficiency, energy conservation, and clean energy sources. With buildings' energy usage contributing to nearly half of all of the community-wide greenhouse gas (GHG) emissions in 2021, implementing the prescribed actions is critical to achieving a more sustainable city. Electricity is primarily being used to power buildings for commercial (50%) and residential (44%) activities, while a smaller fraction (%) is being used to power city scale infrastructure such as streetlights and transporting water and [wastewater](#). Between 2012 and 2021, electric usage remained generally stable.

ELECTRICITY CONSUMPTION BY SECTOR, 2022 [%]



WP E-GRID FUEL MIX - 2022 PURCHASES

COVANTA - 87 GWH, OUC 65 GWH, FMPS 292 GWH



All utility data is sourced from the city's Comprehensive Annual Financial Reports, which can be reviewed on the city's website.

OBJECTIVES

1. Increase energy efficiency of residential and commercial buildings
2. Increase energy conservation in residential and commercial sectors
3. Increase solar energy in residential and commercial sectors
4. Increase educational awareness for energy efficiency and conservation best practices
5. Maintain utility rates that are competitively low for consumers

INDICATORS

	Indicator Description	Baseline	2021 Status	2022 Status	2025 Target	2035 Target	2042 Target	2050 Target
E-1	Energy usage in residential buildings [kWh/customer/year] ¹ – Baseline Year: 2012	15,263	14,739	14,791	13,718	12,064	13,560	12,710
E-2	Energy usage in commercial buildings [kWh/customer/year] ¹ – Baseline Year: 2012	-	86,704	91,527	81,004	73,312	73,858	70,838
E-3	Residential building audits performed annually – Baseline: Average # of audits/yr and between 2017-2020	63	91	93	125	200	240	300
E-4	Residential Rebates provided annually – Baseline: Average # of audits/ yr and between 2017-2020	-	26	17	75	100	125	150

¹Data provided by the IRP study without the assumption of EV charging.

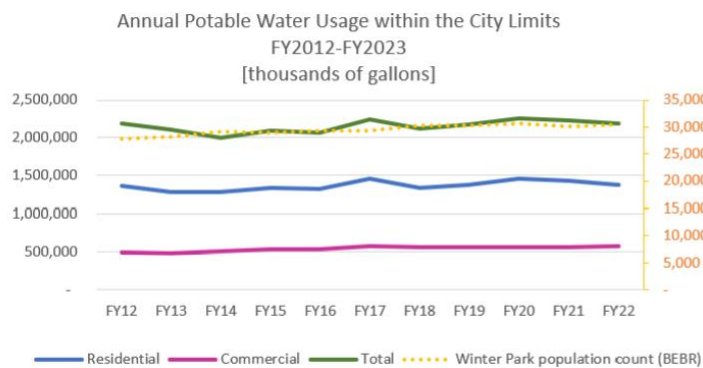
ACTIONS

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Conduct Energy Efficiency (EE) Study benchmarking city buildings and identify technologies to improve EE	Yes	Completed	Sustainability Division, WP Electric Utility, WP Water Utility
2024	Internal employee energy conservation training – reduction in energy and water use that provides incentives to motivate conservation	No	None	Sustainability Division; Human Resources
2024	Implement Energy Efficient Technologies based on Energy Efficiency Study i.e motion detection lighting and programmable thermostats	No	Initiated	Sustainability Division, WP Electric Utility, Public Works

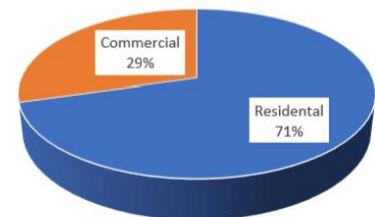
Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2024	Explore incentive programs for commercial customers that encourage energy conservation	No	None	Sustainability Division, WP Electric Utility, Economic Development
2024	Identify methodology for expressing energy use intensity in kWh per square foot for residential and commercial customers via Smart Works Technology and Energy Star	No	None	GIS, IT, WP Electric Utility, Sustainability
Continue Annually	Maintain competitive rates for WP Utility Customers	Yes	Ongoing	Sustainability Division, WP Electric Utility, WP Water Utility
Continue Annually	Promote Energy Conservation opportunities such as audits and rebates, providing energy conservation kits, and solar feasibility reports for customers that undergo energy audits including local schools	Yes	Ongoing	Sustainability Division, WP Electric Utility, Communications
Continue Annually	Provide technical assistance and education to commercial property owners and tenants on Energy Star Portfolio Manager	Yes	Ongoing	Sustainability
Continue Annually	Continue to pursue clean transportation options. Expanding City Fleet and EV Charging Stations for commuters	Yes	Ongoing	Sustainability Division, WP Fleet Services, WP Utility

Water

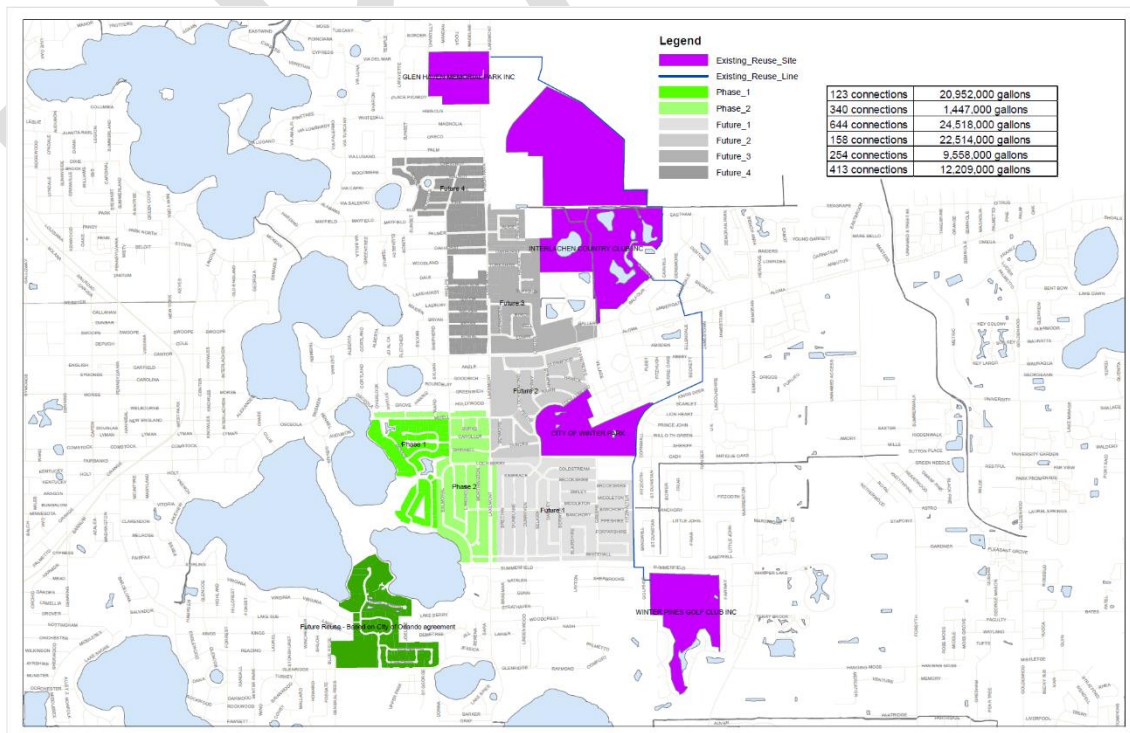
The Water category focuses on measures that can increase water efficiency and water conservation in residential and commercial sectors. In the City of Winter Park, residential and commercial customers use potable water for indoor and outdoor (irrigation) purposes. Over the last decade, potable water has remained generally stable, reflecting the minimal change in population growth over that time. The majority of potable water consumed in the city is used by residential customers (71%), with nearly half of residential water usage being spent on irrigation. Implementation of technological tools, such as Advanced Metering Infrastructure (AMI), will allow for effective monitoring of water usage, efficiency, and recognizing irregularities. The city will continue promoting irrigation rebate incentives in addition to providing water conservation education for residential, commercial, and Winter Park schools.



Water Consumption
by Sector, 2022 [%]



All utility data is sourced from the city's Comprehensive Annual Financial Reports, which can be reviewed on the city's website.



Reuse expansion map provided by Water/Wastewater Department

OBJECTIVES

1. Increase water efficiency of residential and commercial buildings
2. Increase water conservation in residential and commercial sectors
3. Increase residential and commercial customers knowledge of water efficiency and conservation best practices and benchmarking tools
4. Implementing smart technologies to aid in water conservation efforts

INDICATORS

	Indicator Description	2012 Baseline	2021 Status	2022 Status	2025 Target	2035 Target
W-1	Water usage in residential buildings [gallons/customer/year] ¹	127,777	130,849	127,606	TBD	TBD
W-2	Water usage in commercial buildings [gallons/customer/year] ¹	294,098	303,788	315,099	TBD	TBD
W-3	<u>Reclaimed water</u> usage [million gallons/year] ²	144.5	91.61	87.97	10% increase	30% increase
W-4	Residential Rebates provided annually	-	34	19	75	150

¹Targets will be determined upon renewal of St. Johns River Water Management District Consumptive Use Permit in 2025.

²Increase in reclaimed water usage due to reuse infrastructure change.

ACTIONS

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2022	Create more robust water conservation education to residential and commercial customers through online, print campaigns, and social media including water wise check list	No	Initiated	WP Water & Wastewater Utility, Sustainability, Communications, Economic Development
2022	Increase public awareness of Florida friendly landscaping and irrigation regulations for city (internal), residential, and commercial customers; i.e. raingardens	No	Initiated	Natural Resources & Sustainability Dept., Communications
2023	Implement Sewer Impact Fee Deferral Program throughout the city to reduce residential and commercial customer upfront costs for connecting to the sewer system	No	None	WP Water & Wastewater Utility

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Explore a code requirement for commercial customers that encourages water conservation	Yes	Completed	Sustainability, WP Water & Wastewater Utility, Economic Development
2023	Amend ordinance for grease trap collection for above ground unit collection & maintenance and maintenance requirements for private lift stations	No	None	Sustainability, WP Water & Wastewater Utility, Stormwater Div, Economic Development
2024	Identify methodology for expressing water use intensity in gallons per capita upon renewal of SJRWMD Consumptive Use Permit	No	None	WP Water & Wastewater Utility, Sustainability
2025	Upon renewal of SJRWMD Consumptive Use Permit, review inverted water utility rate structure to increase water conservation efforts	No	None	WP Water & Wastewater Utility
2025	Upon renewal of SJRWMD Consumptive Use Permit, expand reclaimed water system	No	None	WP Water & Wastewater Utility
Continue Annually	Explore grant opportunities for septic to sewer conversion projects	Yes	Initiated	WP Water & Wastewater Utility; PW; Sustainability
Continue Annually	Using AMI system to identify customers in non-compliance with SJRWMD irrigation policies and provide non-compliant customers with water conservation best practices	Yes	Initiated	WP Water & Wastewater Utility, Sustainability
Continue Annually	Promote existing water conservation educational opportunities such as audits and rebates including Schools	Yes	Initiated	WP Water & Wastewater Utility, Sustainability, Communications
Continue Annually	Replace Advanced Metering Infrastructure (AMIs) to allow for new, more effective monitoring of water usage, efficiency, detection/malfunctions, and recognizing irregularities	Yes	Initiated	WP Water & Wastewater Utility

Community Engagement & Green Economy

The Community Engagement and [Green Economy](#) category outlines long term objectives and actions focused on encouraging residents, business owners, schools and other organizations in the city of Winter Park to begin incorporating more sustainable solutions in their daily activities. To foster and build upon a culture that values health, environmental stewardship, and financial wellbeing, the city will support public engagement campaigns to educate, inspire and offer some of the most cost effective, healthy and easy solutions. The campaign will seek to engage diverse partners and sectors of the community; create a shared community vision, goals and progress indicators of a low-carbon future; connect individuals and organizations to education, tools and resources; and celebrate positive changes and successes. A fully engaged community is the key to successfully making the city a more sustainable community.

OBJECTIVES

1. Communicate, educate and motivate residents to begin incorporating more sustainable solutions in their daily actions to change their behaviors in ways that support the objectives of the Sustainability Action Plan
2. Engage businesses, offer sustainable solutions and recognition for greening their daily operations that support the objectives of the Sustainability Action Plan
3. Provide opportunities for schools to implement sustainable practices in their daily operations that support the objectives of the Sustainability Action Plan
4. Work collaboratively with community organizations to identify and implement sustainable solutions that support the objectives of the Sustainability Action Plan

INDICATORS

	Indicator Description	Baseline	2021 Status	2022 Status	2025 Target	2035 Target
CEGE-1	Volunteer hours for Community engagement events – Baseline Year: 2012	240	1,304	433	No less than 1,500	No less than 2,000
CEGE-2	New Green Businesses Recognized per year – Baseline Year: 2012	0	26	3	No less than 10	No less than 10
CEGE-3	Green School Grant Funding – Baseline: Average amount of funding between 2017-2020	\$3,300	\$2,890	\$3,500	Equal or more than \$3,500/year	Equal or more than \$3,500/year
CEGE-4	Number of Community Engagement Events	-	-	29	No less than 20	No less than 20

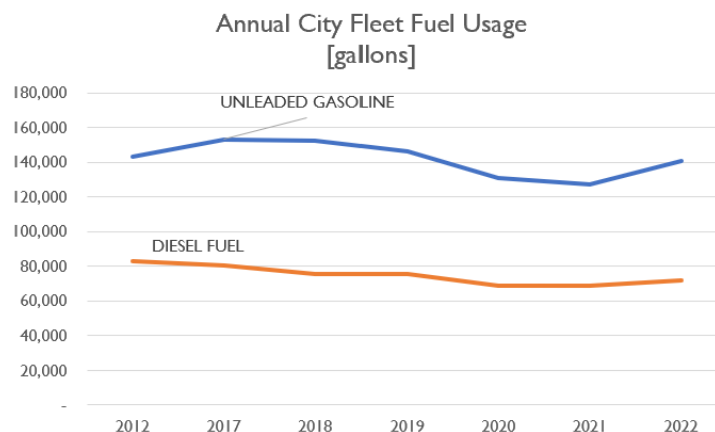
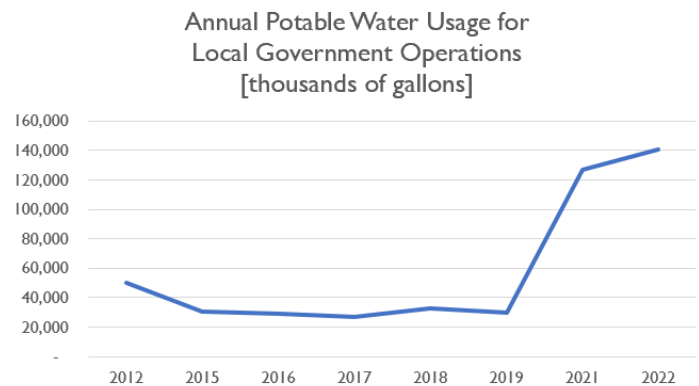
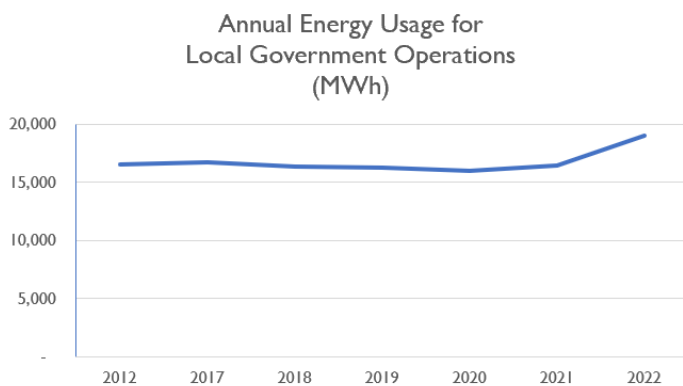
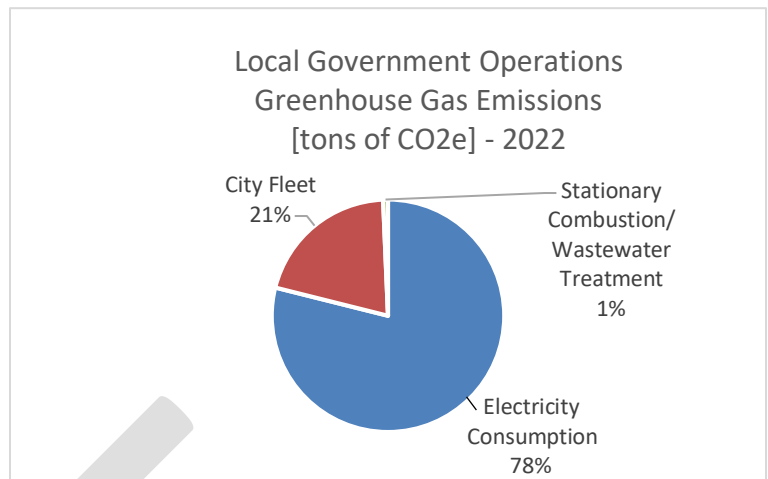
ACTIONS

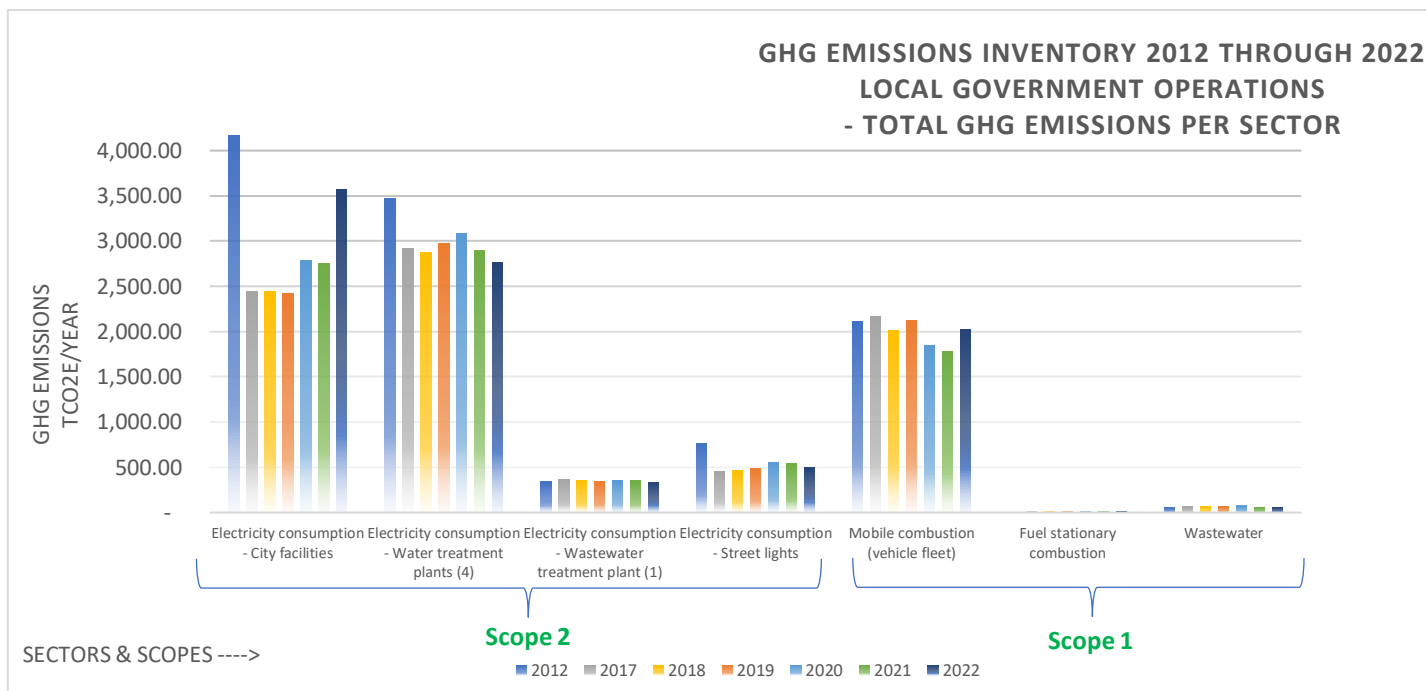
Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2024	Create Green Event Guide for city events and Champions Volunteer Program	No	Initiated	Sustainability, Parks & Recreation, Communications
Continue Annually	Promote sustainability program initiatives through various social media platforms and traditional print media, at inperson events, and maintain and update Program's website	Yes	Yes	Sustainability, Communications
Continue Annually	Administer Green Business Recognition Program and promote Green Business initiatives: Facilitate Green Business networking events	Yes	Yes	Sustainability, Communications, Economic Development
Continue Annually	Administer Green School Grant Program and Green Education opportunities for educators	Yes	Yes	Sustainability
Continue Annually	Partner with local universities (e.g., University of Central Florida, Rollins College) to provide educational trainings on sustainability-related subjects	Yes	Yes	Sustainability
Continue Annually	Ensure all requirements are met for remaining a Keep America Beautiful affiliate	Yes	Yes	Sustainability
Continue Annually	Provide volunteer opportunities for litter cleanups of city's lakes and rights-of-way and opportunities for beautification of city parks and greenspaces	Yes	Yes	Sustainability, Lakes Division, Parks and Recreation
Continue Annually	Provide education on Sustainability at Neighboring Community Events	Yes	Yes	Sustainability
Continually Annually	Create and implement environmental education opportunities at parks and city buildings (e.g., Mead Gardens, Howell Branch Creek, Dinky Dock and Fort Maitland)	Yes	Yes	Sustainability, Parks & Recreation, Communications

Local Government Operations

The Local Government Operations category outlines long term objectives and actions focused on reducing GHG emissions of municipal operations, increasing municipal facilities' resiliency to the impacts of climate change, and encouraging resource protection and conservation. Creating healthier and more comfortable environment for employees and building occupants are also anticipated benefits from the city renovating existing buildings and building new city facilities to meet high performance, green building standards.

The city's Local Government Operations GHG Emissions Inventory consists of all major direct emissions from the burning of fossil fuels by the City's fleet and indirect GHG emissions associated with the electricity consumption for local government operations. City Fleet-related (20%) and electricity consumption-related (79%) activities contribute the largest proportion of greenhouse gases emissions in government operations. Energy usage has remained generally stable since the baseline year of 2012.





Workforce commute also contributes to GHG emissions. City adoption of a flexible work plan to a four-day work week would decrease carbon emission. This provides both climate and employee well-being benefits.

Energy audits of city facilities would allow for projects to be selected that will provide the greatest energy reduction at the best return on investment. Several city parks use reclaimed water, lake or well water, reducing the amount of high-quality potable water being used by the city to irrigate. Efforts to expand the use of reuse water for park irrigation is planned.

City fleet gasoline and diesel consumption has remained generally stable since the baseline year of 2012. In 2020, there was a decrease in both unleaded gasoline and diesel due to the pandemic. It is expected to jump back to average consumption in 2022 with a goal to steadily decrease over the next decade with the establishment of a fleet electrification policy as identified in the city's Comprehensive Plan. This policy prioritizes zero tail pipe emissions and high fuel efficiency vehicles that would help further fleet electrification and fuel usage reduction when a vehicle replacement/new vehicle is required. The city plans to expand EV charging stations that would be used for both city employees and for public use.

Sustainability education and incentivization for city employees also plays a vital role. By providing a green procurement guideline, the guesswork of selecting sustainable and compostable products is taken out while the city implements greener purchasing choices. City sponsored events, and hired vendors such as catering services, should be required to follow green event policies. While green choices are made at the workplace, this could help make greener choices at home as well.

OBJECTIVES

1. Increase the city's municipal facilities resiliency and energy use efficiency to the impacts of climate change
2. Improve city services and broaden public access to information about city performance
3. Reduce Local Government Operations (LGO) greenhouse gas emissions
4. Increase energy and water efficiency of existing and new city-owned and city-operated facilities
5. Encourage on-site renewable energy generation at city-owned and city-operated facilities and reduce fossil fuel consumption by city fleet vehicles
6. Communicate, educate and motivate city employees to incorporate more sustainable solutions in their daily actions to change their behaviors in ways that support the objectives of the Sustainability Action Plan
7. Reduce the amount of waste generated from local government operations
8. Encourage reuse and other means of disposal that divert generated waste away from the landfill
9. Consider reducing carbon emission by implementing four-day work week where applicable

INDICATORS

	Indicator Description	Baseline	2021 Status	2022 Status	2025 Target	2035 Target
LGO-1	Local Government Operations greenhouse gas emissions [tons of carbon dioxide equivalent] ¹	11,315	8,735	8,735	40% less than baseline year	80% less than baseline year
LGO-2	Energy use for Local Government Operations [MWh/yr] ²	16,471	16,443	18,912	5% less	15% less
LGO-3	City-owned and city-operated facilities audited	3	3	23	50%	100%
LGO-4	Potable water usage [thousands of gallons]	-	70,172	66,030	50% less	TBD
LGO-5	City Fleet fuel usage [gallons of unleaded gasoline]	143,268	126,747	140,486	Downward trend	TBD
LGO-6	City Fleet fuel usage [gallons of diesel fuel] ³	83,142	64,929	71,697	Downward trend	TBD
LGO-7	Number of city-owned Electric Vehicles ³	0	8	11	Increase	Increase
LGO-8	Number of Electric Vehicle charging Stations available for city use [ports] ³	1	13	13	Increase	Increase

¹By the end of 2020, the city had 266kW of installed solar capacity (City Fleet Building, Aloma Water Treatment Plant)

²Target based on data received from utility reporting based on all city facilities meters

³By the end of 2020, the city had 6 electric vehicles (2% of total fleet) and 7 EV Charging Ports for Fleet Use

ACTIONS

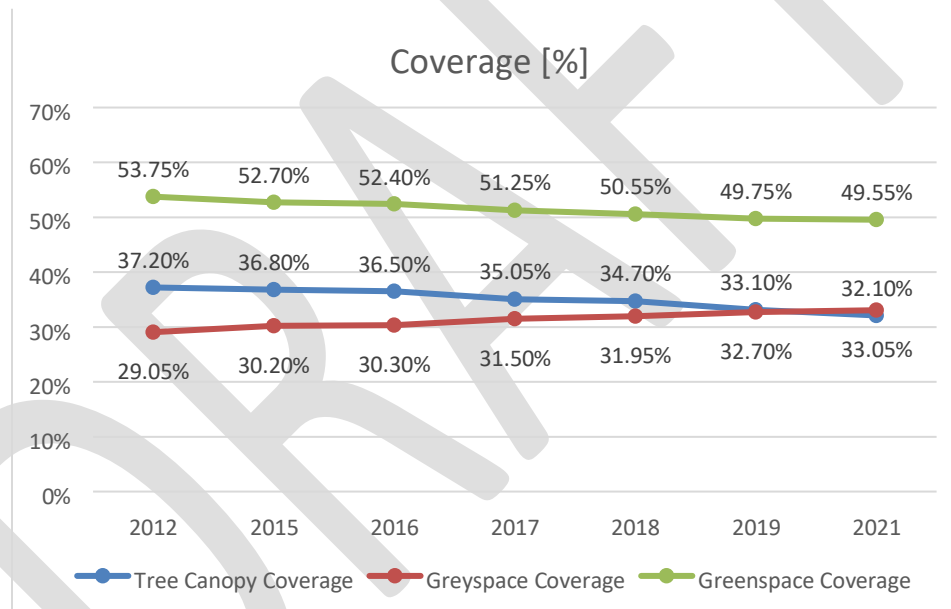
Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2022	Solicit proposals for energy conservation audits for all city facilities	Yes	Completed	Public Works, Procurement, Sustainability, WP Electric Utility
2022	Conduct Renewable Energy Feasibility Study – 5.25.22 commission approved to move forward	Yes	Completed	Public Works, Sustainability, Procurement, WP Electric Utility
2023	Pilot food waste collection program at a city facility (City Hall and or Center Street)	No	Initiated-Center St.	Sustainability
2023	Create & establish sustainable fleet policy that creates vehicle replacement EV hybridization	Yes	Yes	Fleet, Sustainability
2024	Develop educational programs for city employees on best practices for workplace energy & water conservation, sustainable transportation modes and waste management; include incentives like Sustainability Olympics/Challenges	No	No	Sustainability, Human Resources
2024	Reestablish Single Use Product Policy	No	No	Sustainability, City Administration, Parks & Recreation
2024	Research energy and water management software capable of identifying low efficiency city facilities and early detection of usage anomalies	No	No	Sustainability, Public Works
2023	Install high efficiency dishwashing machines and water bottle filling stations at city facilities to facilitate the reuse of dishware for city-business meetings and gatherings	No	Initiated	Public Works, Sustainability
2023	City adoption of a flexible work plan to a four-day work week to decrease carbon emission	No	Initiated	City Management, All City Departments
2024	Explore ways to quantify waste generated from city offices	No	No	Sustainability

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2024	Design/implement a sustainability procurement policy that is fiscally responsible and aligns with sustainability goal that will include in the cities current comprehensive procurement policy	No	No	Procurement, Sustainability
2025	Upon renewal of SJRWMD Consumptive Use Permit, assess and identify opportunities for water conservation measures for all city facilities	No	No	WP Water & Wastewater Utility
2025	Ensure that all new, significantly renovated, occupied, city-owned buildings will be designed to incorporate measures that would allow them to be FGBC or minimum of LEED “Silver Certification” level	No	No	Public Works, Sustainability
Continue Annually	Use data and analytics to improve city services and broaden public access on information about city performance	Yes	Ongoing	IT, All City Departments
Continue Annually	Utilize racial equity lens to assess city policies, initiatives, programs, and budget issues	Yes	Ongoing	All City Departments
Continue Annually	Work with OMB annually to identify sustainability-related project needs and budget with city departments on Capital Improvement Plan	Yes	Ongoing	Office of Management & Budget, Sustainability Division, All City Departments
Continue Annually	Monitor city buildings’ energy and water usage through ENERGY STAR Portfolio Manager	Yes	Ongoing	Sustainability
Continue Annually	Conduct Local Government Operations Greenhouse Gas Emissions Inventory	Yes	Ongoing	Sustainability
Continue Annually	Shift from fossil-fuel to electric powered landscaping equipment upon replacement; exception to leaf blowers with due date of 2024	Yes	Ongoing	Parks & Recreation
Continue Annually	Continue to partner with FDOT’s reThink Your Commute program to encourage employees’ use of SunRail, Lynx, vanpools, bikes, and walking to work	Yes	Ongoing	Human Resources, Sustainability

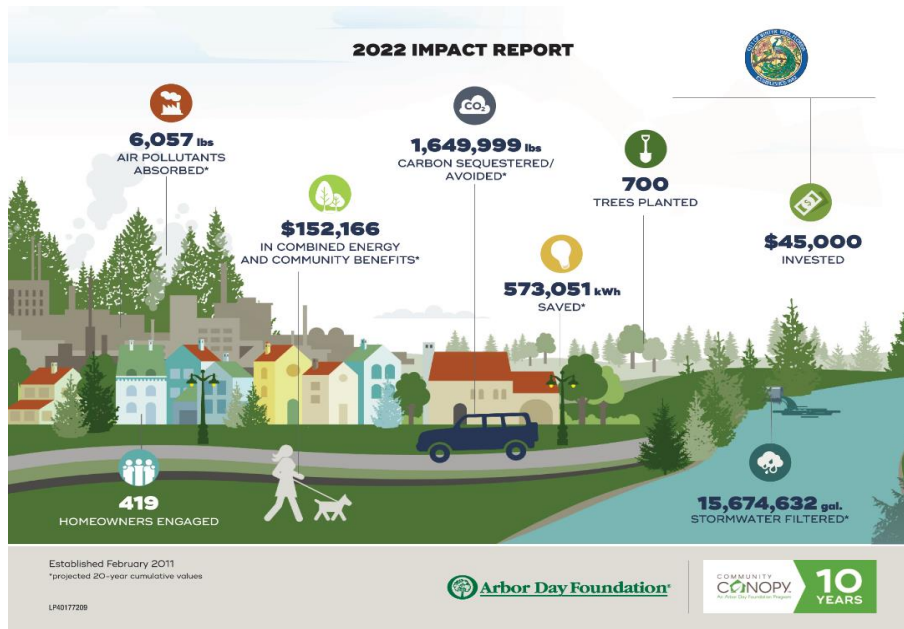
Natural Resources

The Natural Resources category is focused on preserving and enhancing the City of Winter Park's valuable natural features that help make the city such a great place to live. The city is known for its lush tree canopy and pristine lakes. Both of these features provide a multitude of benefits including improved air quality, wildlife habitat, cooler temperatures through reduced [urban heat island](#) effect, beautification and increased property values. In recognition of a downward trend from 2012 to 2019, the target goals for tree canopy coverage and greenspace coverage reflect a commitment to reversing the trend.

In 2020, the city's Urban Forestry Division began using [i-Tree Canopy](#). The online tool randomly lays points onto Google Earth imagery and then the user manually classifies what cover class (e.g., tree) each point falls upon. While 500-1,000 points are suggested, the Urban Forestry Division classified 2,000 points, increasing the accuracy of the estimates. Since the aerial imagery from Google Earth is normally about 2 years old, the assessment presented goes only through 2021.

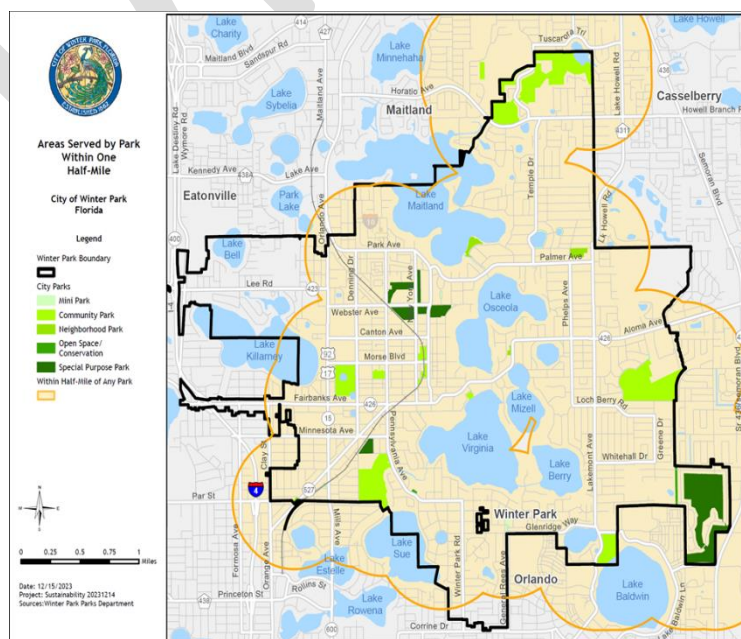


Using i-Tree Canopy, Urban Forestry was able to determine the city's tree canopy coverage (includes trees and shrubs), greenspace coverage (includes trees, shrubs, grass and herbaceous cover) and greyspace coverage (includes impervious surfaces and buildings). A trend of gradual decline in tree canopy and greenspace coverage and gradual incline of greyspace coverage is evident during the reporting years. Tree canopy loss is most likely attributable to changes in land development use. Land development regulations and city programs that protect and expand the existing canopy are critical to ensure tree canopy coverage does not continue to decline.



City parks play a crucial role in residents and visitors mental and physical well-being and stimulate social cohesion. The city's Parks and Recreation Division has consistently exceeded its goal of more than 10 park acres per 1,000 people. Maintaining the percentage of residents living within a half mile from park space will not only ensure that residents are within walking distance of places that are good for their mind and body, but these green areas also help mitigate localized air pollution and provide habitat for numerous animal and plant species.

In addition, by adding designated “no-smoking zones” to city parks and events reinforces clean air initiatives. In 2023, The Parks & Recreation Advisory Board met to review all open spaces and land use to review Winter Park’s greenspace distribution and accessibility to residents. Definitions on the Open Space, Green Space, and Park Land were agreed upon as well as if certain spaces met criteria based on these updated definitions. Figure below shows these updated changes moving forward.



In 2021, the city's Lakes Division will begin tracking the city's Main Lakes meeting the "Good" Water Quality Standard [average annual [*trophic state index \(TSI\)*](#) below 60]. The city's Main Lakes include Lakes Baldwin, Berry, Killarney, Maitland, Mizell, Osceola, Sue and Virginia. TSI is a classification system designed to "rate" individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water. Using the index, one can gain a quick idea about how productive a lake is.

In 2022, the Natural Resources and Sustainability Department implemented discussions with Mead Botanical Garden in efforts to create a Comprehensive Plan. The Comprehensive Plan is intended to become a guiding document between Mead Garden, City of Winter Park, and Stakeholder groups (such as Winter Park Land Trust and Native Plant Societies). The plan would address projects, management plans (both removal and revegetation), and Howell Creek water quality and stabilization. This further illustrates the City of Winter Park's partnership with Mead Botanical Garden in allowing for further success of our current and future projects. Mead Botanical Garden not only brings tourism to our city, but provides environmental conservation and educational opportunities for our citizens to experience and enjoy.

The restoration and preservation of Howell Branch Preserve is equally vital to environmental conservation efforts. Continuing with invasive species management and restoring with native species, to include a robust reforestation plan, is key to the long-term protection of this unique park/preserve system.

OBJECTIVES

1. Maintain and expand an equitable urban tree canopy
2. Increase overall greenspace
3. Increase parks and conservation space
4. Increase street trees within the city's rights of way
5. Maintain number of lakes meeting good water quality standard
6. Increase residents' and businesses' knowledge of best practices for urban tree canopy maintenance
7. Increase residential awareness on pollution prevention of natural water resources, including impacts of stormwater runoff and over-fertilizing for Winter Park lakes
8. Designate "no-smoking zones" for city parks and events
9. Creating a Mead Botanical Garden Comprehensive Plan document

INDICATORS

	Indicator Description	Baseline	2021 Status	2022 Status	2025 Target	2035 Target
NR-1	Tree Canopy Coverage – Baseline Year: 2019	33.10%	32.10%	TBD	Maintain	5% more
NR-2	Greenspace Coverage – Baseline Year: 2019	49.75%	49.55%	TBD	Maintain	5% more
NR-3	Greyspace Coverage – Baseline Year: 2019	32.70%	33.05%	TBD	Maintain	5% less
NR-4	# of Trees Removed	-	120	160	Maintain	TBD
NR-5	# of Trees Planted	-	150	150	Increase trend	TBD
NR-6	Percentage of City of Winter Park's Main Lakes ¹ meeting Good Water Quality Standard [Average Annual Trophic State Index (TSI) below 60] – Baseline Year: 2012	100%	100%	100%	Maintain	Maintain

¹Lakes Baldwin, Berry, Killarney, Maitland, Mizell, Osceola, Sue and Virginia

ACTIONS

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2022	Provide education on pollution prevention of natural water resources (e.g., impacts of stormwater runoff and over-fertilizing) to residents and businesses through on-line, print campaigns, and social media	Yes	Ongoing	Lakes Division, Sustainability Division, Communications
2023	Establishing a Tree Giveaway Program that delivers a diverse variety of canopy and understory trees to residents	Yes	Ongoing	Urban Forestry, Sustainability
2023	Explore opportunities to preserve existing trees on private property such as increase front set backs on septic for property owners and developers	No	Initiated	Building & Permitting, Urban Forestry, Sustainability

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Conduct <i>tree equity score</i> study to determine if tree canopy cover is distributed in a way that all residents can experience the climate, health and other benefits that trees provide	No	No	Urban Forestry
2023	Develop a checklist of trees for residents to reference	No	No	Urban Forestry, Communications
2024	Incorporate opportunities to build a green infrastructure (bio-swales, rain gardens, green roofs, etc.) demonstration project within the city limits	No	Initiated	Sustainability, Stormwater Division
2022	Adopt Artificial Turf Ordinance	Yes	Ongoing	Natural Resources & Sustainability, Planning, Public Works
2023	Periodic Review for Natural Resources Protection. Increase policy to save more trees within building code – land development code	No	Initiated	Urban Forestry, Natural Resources and Sustainability, Building & Permitting
2023	Explore implementation of Tree Equity Score indexing	No	No	Urban Forestry & Sustainability
2023	Water quality data readily accessible for all WP citizens to utilize	No	Initiated	Communications, WP Electric Utility
2023	GIS Modeling to predict tree canopy	No	No	GIS & Urban Forestry
2023	Establish Lakes Newsletter to inform citizens on the importance of lake side living	Yes	Ongoing	Lakes Division, Communications

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Establish a lakeside living checklist for use when hiring lawn care/maintenance to prevent excess fertilizers and grass clippings from entering our waterways	No	No	Lakes Division, Communications
2023	Implement lake vegetation bioassessment to benchmark and track the health of WP's Shorelines	No	Initiated	Lakes Division
2023	Add pollinator gardens to the initial landscape plan throughout the city	Yes	Initiated	Parks & Recreation, Landscaping, Natural Resources & Sustainability
2024	Enhance tree canopy coverage via the urban forest management plan and update every 5 years	No	No	Urban Forestry, Natural Resources & Sustainability
Continue Annually	Increase beneficial native aquatic plant shorelines for all Winter Park Lakes	Yes	Ongoing	Natural Resources & Sustainability
Continue Annually	Explore funding to support green infrastructure and tree canopy development	Yes	Ongoing	Urban Forestry, Natural Resources & Sustainability
Continue Annually	Administer city's Urban Forest Management Plan and Program	Yes	Ongoing	Urban Forestry
Continue Annually	Consider the usefulness and availability of state and federal grant programs for the acquisition of lands for conservation areas or passive recreation	Yes	Ongoing	City Administration, Parks & Recreation, Planning & Transportation

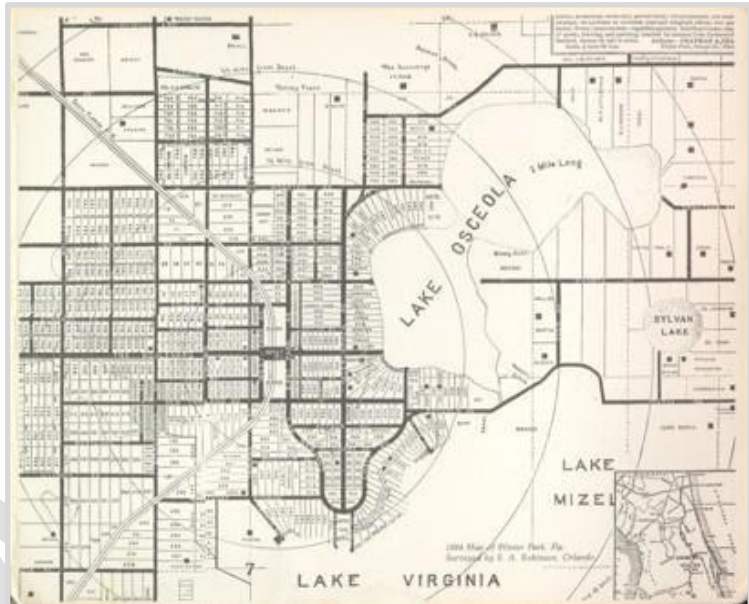
Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
Continue Annually	Administer <u>integrated aquatic plant management program</u>	Yes	Ongoing	Lakes Division
Continue Annually	Provide Tree Canopy Conservation education (e.g., environmental/health benefits, cost savings, aesthetics) to residents, building professionals, realtors and businesses through on-line, social media, print campaigns and inperson workshops	Yes	Ongoing	Urban Forestry, Sustainability Division, Building & Permitting, Communications
Continue Annually	Increase Watershed Clean Ups, Tree Plantings, and Shore Restoration Events	Yes	Ongoing	Natural Resources & Sustainability Dept., Urban Forestry

Transportation and Urban Form

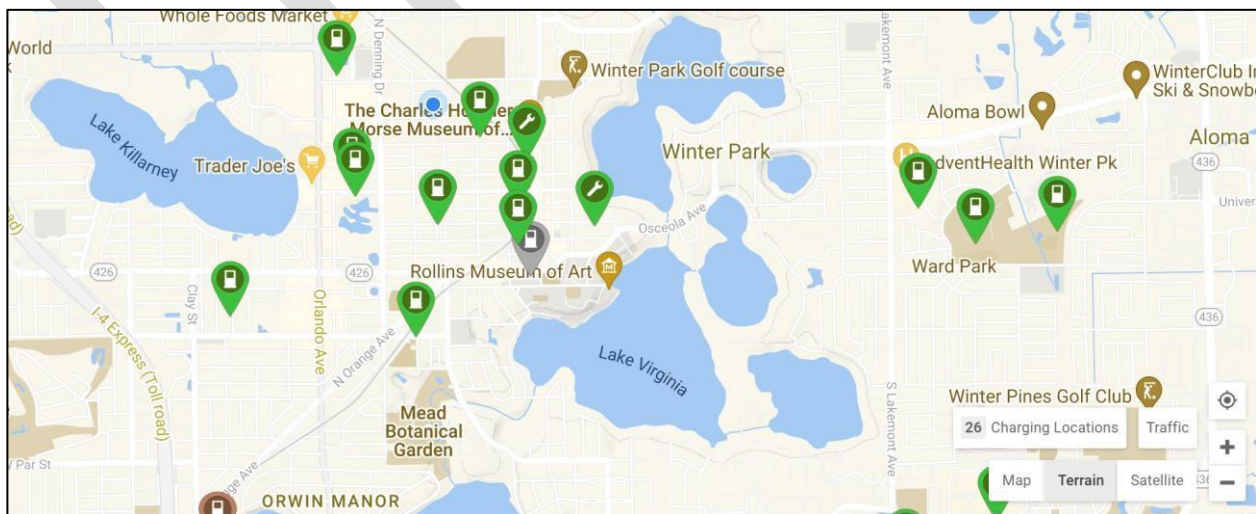
The Transportation and Urban Form category is focused on encouraging healthier, more active forms of transportation such as walking, bicycling and using mass transit such as LYNX bus and SunRail commuter rail and increased [connectivity](#). As the first planned community in Florida, the city was founded around the concept of walkability and human scaled urbanism. Since owning a car was a rarity in the 1880s, the city's founders designed the original plan around the Train Station which was the town's first constructed building. Future development was patterned off quarter mile walks around the station.

As discussed in the Climate Resiliency category, transportation is a significant (50%) contributor to the city's community-wide GHG emissions. Climate Resiliency emphasizes the need for people to choose more sustainable transportation options.

Common design elements of [complete streets](#) includes continuous sidewalks, bike lanes, landscaping, and shade trees. These design characteristics, combined with green infrastructure such as bio-swales and rain gardens, also help reduce stormwater runoff, enhance lakes water quality, and reduce the urban heat island effect.



The original Town Plan for Winter Park, FL placing the train station in the center with development planned around it. The circles represent quarter mile distances.



Map from PlugShare showing City of Winter Park's public charging stations in green.

OBJECTIVES

1. Improve pedestrian and bicyclist environments with sustainable and safe transportation infrastructure such as sidewalks, multimodal paths, and transit shelters
2. Encourage more complete streets in planning and development
3. Create an environment that encourages residents, businesses, and visitors to transition to electric and less carbon-intensive modes of transportation to achieve a level of air quality that is healthy for all residents and the natural environment (e.g., meeting and exceeding regional indoor and outdoor [air quality standards](#))
4. Increase residents' and businesses' knowledge of benefits and importance of sustainable transportation choices
5. Execute Transportation Masterplan initiatives

INDICATORS

	Indicator Description	2012 Baseline	2021 Status	2022 Status	2025 Target	2035 Target
TUF-1	Sidewalk/Street improvements allowing for pedestrian and bicyclist use [Linear feet] ^{1,2} - <i>Starting year 2022</i>	-	930 LF	937 LF	1 mile (cumulative)	3.5 miles (cumulative)
TUF-2	Pedestrian infrastructure improvements (enhanced crossings) [improved site/year] ² - <i>Starting year 2022</i>	-	5	2	10	25
TUF-3	Bicyclist infrastructure improvements (enhanced crossings, & bike racks) [improved site/year] ² - <i>Starting year 2022</i>	-	22	5	15	30
TUF-4	Improved transit stops (benches, transit shelters, waste receptacles, etc.) [improved transit stop/year] ² - <i>Starting year 2022</i>	-	0	0	2	4
TUF-5	Public EV Charging Stations ³	7	11	11	5 additional	15 additional

¹e.g., converting a sidewalk to a mixed-use trail or adding a bike lane to an existing road

²Targets for TUF-1, TUF-2, TUF-3 and TUF-4 will be determined and baseline adjusted upon completion of Transportation Master Plan

³As of 2022, data represents only city-owned public charging stations and excludes private charging stations

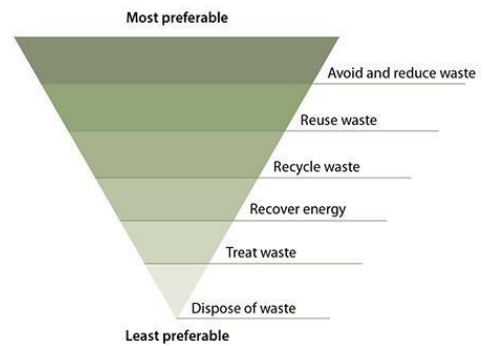
ACTIONS

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Develop Transportation Masterplan, considering safe routes to schools, Complete Streets, and linkages of the City's trails with adjacent counties and municipalities	Yes	Yes	Planning & Zoning, Communications, Public Works, Sustainability

Projected Implementation Year	Action	Accomplished	Status	Responsible Department/ Division
2023	Explore feasibility of an incentive program for EV Charging Station installation in multifamily and commercial properties	No	None	Sustainability, Building & Permitting, WP Electric Utility
2023	Develop EV infrastructure needs assessment and master plan	Yes	Ongoing	Sustainability, WP Electric Utility, Planning & Zoning
2025	Explore opportunities to pilot electric shuttle (Smart Bus)	No	Initiated	City Administration, Economic Development, Planning & Zoning, Sustainability
2025	Implement public and private rideshare partnership opportunities that will promote the use of the cities SunRail System	No	No	Economic Development, Planning & Zoning, SunRail, Uber, & Lyft
Continue Annually	Maintain Electric Vehicle Charging Stations available to the public	Yes	Ongoing	Sustainability
Continue Annually	Encourage private developments to increase safety and ease of walking and cycling through site plan review process	Yes	Ongoing	Planning
Continue Annually	Assess affordable & workforce housing during the Comprehensive Plan's planning process.	No	Ongoing	Economic Development, Planning & Zoning
Continue Annually	Provide education on pedestrian and bicyclist safety, routes, and proximity to amenities to residents and businesses through on-line, social media, interactive map, and print campaigns	Yes	Ongoing	Planning & Zoning, Public Works, Police Department, Communications
Continue Annually	Evaluate bus stop infrastructure with Lynx for accessibility and amenities (such as water)	Yes	Ongoing	Planning, Sustainability, Lynx
Continue Annually	Provide education on benefits and importance of sustainable transportation choices to residents and businesses through on-line, print campaigns, social media, and in-person events	Yes	Ongoing	Planning & Zoning, Public Works, Sustainability, Communications
Continue Annually	Work with Sustainability to ensure Comprehensive Plan Update incorporates sustainability and resilience objectives and policies as it relates to transportation	Yes	Ongoing	Planning & Zoning, Public Works, Sustainability

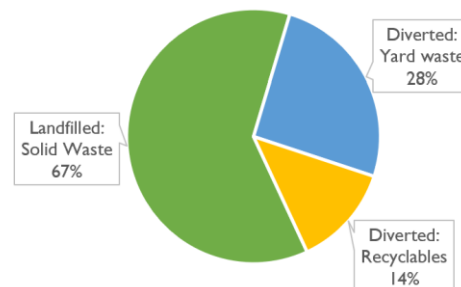
Waste Management

The Waste Management category is focused on reducing the amount of waste generated, encouraging the reuse and repair of products, and diverting waste from the landfill. The EPA developed the non-hazardous materials and [waste management hierarchy](#) in recognition that no single waste management approach is suitable for managing all materials and waste streams in all circumstances. The hierarchy ranks the various management strategies from most to least environmentally preferred.

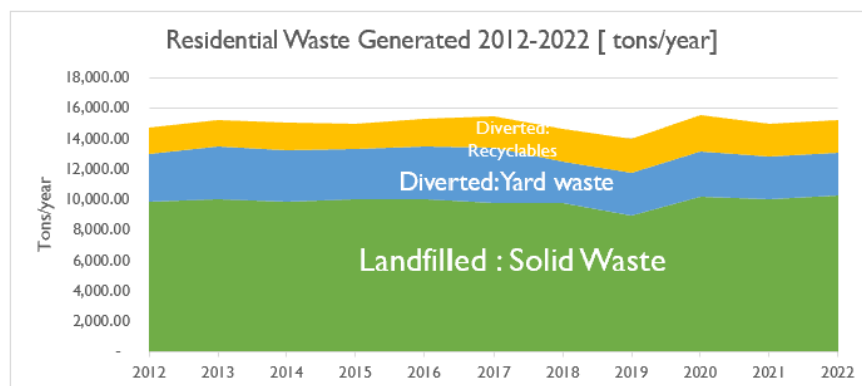


The City of Winter Park has a franchise agreement with WastePro for hauling solid waste, yard waste, and recyclables from residential properties. Under this contract, WastePro hauls solid waste to the Seminole County Transfer Station with exceptions during diversion events. Solid waste is landfilled, and yard waste is primarily used as road cover at the landfill, allowing yard waste to be counted as diverted waste. WastePro hauls recyclables to the Orange County Transfer Station. There, the recyclables are graded by Waste Management as being “acceptable” or “rejectable” based on the level of contamination. Acceptable loads are transported to Waste Management’s sorting facility for sorting, bailing, and compaction and then prepared for market. Unacceptable loads are landfilled. Consistency in updating residents to what is acceptable and not acceptable in the recycling bin is key to keeping rejections, or contamination rate, low.

Residential Waste Generated, 2022 [%]



It is important to recognize that at the top of the waste management hierarchy is avoidance and reduction of waste. The city is leading by example with its Single Use Product Policy Pilot program that prohibits plastic bags, plastic straws and styrofoam products at city facilities. The Green Business Recognition Program provides a way for businesses to receive recognition for switching from single-use to reusable and compostable alternatives. It is critical to reinforce the message that most environmentally preferable choice an individual can make in regards to waste is to not create it in the first place.



OBJECTIVES

1. Reduce the amount of waste generated
2. Increase repair, reuse and donation of materials
3. Divert waste generated away from the landfill
4. Increase residents and businesses' knowledge of the benefits and importance of waste prevention and reduction
5. Increase composting awareness

INDICATORS

	Indicator Description	2012 Baseline	2021 Status	2022 Status	2025 Target	2035 Target
WM-1	Residential Waste Generated [tons] ¹	14,714	15,018	15,242	5% less	10% less from prior target
WM-2	Residential Solid Waste Landfilled [tons]	9,890	10,004	10,240	10% less	20% less
WM-3	Residential Waste Diverted from Landfill [tons] ²	4,824	5,014	5,003	10% more	20% more

¹Includes tonnage collected from residential households (solid waste, yard waste and recycling)

²Includes tonnage of waste diverted for other purposes (i.e., recyclables recycled and yard waste used for landfill cover)

ACTIONS

Projected Implementation Year	Action	Accomplished	Status	Responsible Department(s)
2022	Provide composting education and backyard composters to residents	Yes	Initiated	Sustainability
2022	Analyze implementation of a Food Waste Diversion Program for Center Street and Farmer's Market	Yes	Initiated	Sustainability

Projected Implementation Year	Action	Accomplished	Status	Responsible Department(s)
2023	Maintain the list of the city's Registered Haulers	Yes	Ongoing	Sustainability
2023	Assist multi-family and commercial buildings with creating recycling education and outreach plans	No	No	Sustainability Division, Economic Development
2023	Increase recycling opportunities at city-owned public facilities and parks	Yes	Initiated	Parks and Recreation, Sustainability
2023	Consider food scrap collection and Pay As You Throw options in Scope of Work description for Solid Waste Services Solicitation	No	No	City Administration, Sustainability
2025	Establishing an ordinance to ban all Styrofoam products city-wide	No	No	City Administration, Sustainability
2026	Consider a mandate for commercial ordinance for recycling and composting	No	No	City Administration, Sustainability
Continue Annually	Host "Fix It, Don't Pitch It" regional community repair event	Yes	Ongoing	Sustainability
Continue Annually	Provide residents with online waste management tool that provides collection schedules, reminders and look-up tool to determine how items should be disposed of	Yes	Ongoing	Sustainability
Continue Annually	Provide in-person, online and print education on waste management hierarchy (reduce, reuse, recycle)	Yes	Ongoing	Sustainability
Continue Annually	Participate in Florida Food Waste Prevention Week	Yes	Ongoing	Sustainability
Continue Annually	Hold Annual Household Hazardous Waste (HHW) and Electronics Waste Collection Event	Yes	Ongoing	Sustainability
Continue Annually	Increase availability of water bottle filling stations at city-owned public facilities and parks	Yes	Ongoing	Parks and Recreation, Sustainability

2022 Action Item Tracker List:

Climate Resiliency	Conduct Renewable Energy Feasibility Study
Climate Resiliency	Implement an Artificial Turf Ordinance which will help mitigate the number of houses that have artificial turf by addressing stormwater and sustainability concerns
Climate Resiliency	Adopt Backyard Chicken Program (exp. September 2022) to evaluate program outcomes and possibility of expanding and extending the program
Water	Create water conservation education to residential and commercial customers through on-line, print campaigns, and social media including water wise check list
Water	Increase public awareness of Florida-friendly landscaping and irrigation regulations for city (internal), residential, and commercial customers; i.e. raingardens
Community Engagement and Green Economy	Re-participate in America In Bloom's annual nationwide competition in addition to researching grant opportunities to help aid KWPB&S
Local Government Operations	Solicit proposals for energy conservation audits for all city facilities
Local Government Operations	Conduct Renewable Energy Feasibility Study – 5.25.22 commission approved to move forward
Natural Resources	Provide education on pollution prevention of natural water resources (e.g., impacts of stormwater runoff and over-fertilizing) to residents and businesses through on-line, print campaigns, and social media
Natural Resources	Establish Lakes Newsletter to inform citizens about lake stewardship
Waste Management	Provide composting education and backyard composters to residents
Waste Management	Analyze implementation of a Food Waste Diversion Program for Center Street and Farmer's Market

Glossary

Air quality standards. The [Orange County Air Quality Management \(AQM\) section](#) ensures that the air quality of Orange County meets standards set forth in the Federal Clean Air Act and in the Florida Statutes. The goal of the [Florida Department of Health Indoor Air Program](#) is to improve the health of Floridians by reducing exposure to indoor air contaminants.

[Best Workplaces for Commuters](#) is an innovative membership program that provides qualified employers with national recognition and an elite designation for offering outstanding commuter benefits such as offering at least \$30 per month towards a transit pass to employees, employee shuttle to transit stations, etc.

[Carbon Footprint](#) The total amount of greenhouse gases that are emitted into the atmosphere each year by a person, family, building, organization, or company. A person's carbon footprint includes greenhouse gas emissions from fuel that an individual burns directly, such as by heating a home or riding in a car. It also includes greenhouse gases that come from producing the goods or services that the individual uses, including emissions from power plants that make electricity, factories that make products, and landfills where trash gets sent.

[Carbon-intensive foods](#) include beef (6.61 lbs. of CO₂e per serving), cheese (2.45 lbs. of CO₂e per serving), and other animal-based products.

[Climate change](#) refers to a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external forcings such as modulations of the solar cycles, volcanic eruptions and persistent anthropogenic changes in the composition of the atmosphere or in land use.

[Climate Resilience](#) The capacity of social, economic and environmental systems to cope with a hazardous event or trend or disturbance, responding or reorganizing in ways that maintain their essential function, identity and structure while also maintaining the capacity for adaptation, learning and transformation.

[Complete Streets](#) are streets for everyone. They are designed and operated to prioritize safety, comfort, and access to destinations for all people who use the street, especially people who have experienced systemic underinvestment or whose needs have not been met through a traditional transportation approach, including older adults, people living with disabilities, people who cannot afford or do not have access to a car, and Black, Native, and Hispanic or Latino/a/x communities. Complete Streets make it easy to cross the street, walk to shops, jobs, and schools, bicycle to work, and move actively with assistive devices. They allow buses to run on time and make it safe for people to walk or move actively to and from train stations.

[Connectivity](#) reduces the distances traveled to reach destinations, increases the options for routes of travel, and can facilitate walking and bicycling. Well-connected, multimodal

networks are characterized by seamless bicycle and pedestrian infrastructure, direct routing, accessibility, few dead-ends, and few physical barriers. Increased levels of connectivity are associated with higher levels of physical activity from transportation. Connectivity via transportation networks can also improve health by increasing access to health care, goods and services, etc.

[Florida Food Waste Prevention Week](#) raises awareness and inspires action to prevent food waste, save money, reduce hunger and protect the environment.

[Florida Green Building Coalition](#) has developed green certification programs that apply to construction projects and local government operations. Seeking FGBC certification demonstrates a commitment to providing your customers with products or services that are green and sustainable.

[Food Recovery](#) is the practice of collecting wholesome food that would otherwise go to waste and donating it to local food distribution agencies to help feed those in need.

[Google EIE](#) uses exclusive data sources and modeling capabilities in a freely available platform to help cities measure emission sources, run analyses, and identify strategies to reduce emissions — creating a foundation for effective action. Starting in 2021, the city's Greenhouse Gas emissions inventory uses Google EIE estimates for transportation emissions (baseline year 2018).

[Green Economy](#) is defined as an economy that is low carbon, resource efficient and socially inclusive. In a green economy, growth in employment and income are driven by public and private investment into such economic activities, infrastructure and assets that allow reduced carbon emissions and pollution, enhanced energy and resource efficiency, and prevention of the loss of biodiversity and ecosystem services.

[Green Infrastructure](#) includes a range of measures that use plant or soil systems, permeable pavement or other permeable surfaces or substrates, stormwater harvest and reuse, or landscaping to store, infiltrate, or evapotranspire stormwater and reduce flows to sewer systems or to surface waters.

[Greenhouse gases](#) are those gaseous constituents of the *atmosphere*, both natural and *anthropogenic*, that absorb and emit radiation at specific wavelengths within the spectrum of terrestrial radiation emitted by the Earth's surface, the atmosphere itself and by clouds. This property causes the greenhouse effect. Water vapour (H₂O), *carbon dioxide* (CO₂), *nitrous oxide* (N₂O), *methane* (CH₄) and *ozone* (O₃) are the primary GHGs in the Earth's atmosphere.

[Integrated Aquatic Plant Management Program](#), established by the City of Winter Park, attempts to meet the challenges of maintaining beneficial plants while minimizing undesirable ones. The program includes chemical, biological and mechanical control methods.

[LEED](#) (Leadership in Energy and Environmental Design) is the most widely used green building rating system in the world. Available for virtually all building types, LEED provides

a framework for healthy, highly efficient, and cost-saving green buildings. LEED certification is a globally recognized symbol of sustainability achievement and leadership.

[Open Space](#) is any open piece of land that is undeveloped and is accessible to the public. In your community, there could be many creative opportunities for open space preservation that could help connect the community and revitalize its economy and social connectivity. Some opportunities for community open space can include: playgrounds, public plazas, or vacant lots as well as Green space (land that is partly or completely covered with grass, trees, shrubs, or other vegetation) such as parks, community gardens, and cemeteries.

[Pay As You Throw](#) is a system in which residents pay for municipal solid waste (MSW) services per unit of waste discarded rather than solely through a fixed fee or property tax.

[Racial Equity](#) occurs when race can no longer be used to predict life outcomes and outcomes for all groups are improved. For more detailed information review the GARE [Advancing Racial Equity and Transforming Government](#) Resource Guide.

[Racial Equity Lens](#) is the set of questions we ask ourselves throughout the decision-making process. The lens interrupts the impact of unintended consequences by taking into consideration the lived experiences and perspectives of the racially diverse communities we intend to serve.

[Reclaimed water](#) is wastewater that has been thoroughly treated to remove harmful organisms and substances, such as bacteria, viruses and heavy metals, so it can be reused.

[Renewable energy](#) is energy from sources that are naturally replenishing but flow-limited; renewable resources are virtually inexhaustible in duration but limited in the amount of energy that is available per unit of time. The major types of renewable energy sources are: Biomass, Hydropower, Geothermal, Wind and Solar.

[Resilience Hubs](#) are community-serving facilities augmented to support residents, coordinate communication, distribute resources, and reduce carbon pollution while enhancing quality of life. Hubs provide an opportunity to effectively work at the nexus of community resilience, emergency management, climate change mitigation, and social equity while providing opportunities for communities to become more self-determining, socially connected, and successful before, during, and after disruptions.

[Urban Heat Islands](#) occur when cities replace natural land cover with dense concentrations of pavement, buildings, and other surfaces that absorb and retain heat. This effect increases energy costs (e.g., for air conditioning), air pollution levels, and heat-related illness and mortality.

[Tree Equity Score](#) is an indicator of whether an area has a sufficient amount of tree canopy cover distributed in a way that all residents can experience the climate, health and other benefits that trees provide.

[Tree Management Program](#), established by the City of Winter Park, maintains existing vigorous trees, removes dead/diseased/dying trees, and replants with a diverse species. The Urban Forestry division is also responsible for maintaining trees in parks and around

facilities, trees coexisting with electrical facilities, rights of way trees, and community outreach and education.

[Trophic State Index \(TSI\)](#) is a classification system designed to “rate” individual lakes, ponds and reservoirs based on the amount of biological productivity occurring in the water. Using the index, one can gain a quick idea about how productive a lake is.

Trophic State Index	Trophic State Classification	Water Quality
0-59	Oligotrophic through Mid-Eutrophic	Good
60-69	Mid-Eutrophic through Eutrophic	Fair
70-100	Hypereutrophic	Poor

[Climate Risk & Vulnerability Assessment](#): a structured process that identifies ways in which a community is susceptible to harm from climate threats and identify corrective actions that can reduce or mitigate the risk of serious consequences due to climate change. This assessment will look at the City’s critical facilities, water infrastructure, economic factors, our natural resources, people and socioeconomic statistics, property, transportation, and mobility. As a city that is mostly in land but surrounded by wetlands, Winter Park is still no stranger to climate events such as hurricanes, flooding, and extreme heat. As rapid growth in development continues, we continue to find ways to be adaptable to these climate changes. Within this assessment we will have key indicators which will allow us to keep track of this data for continued planning and prevention. These indicators include: GHG Emissions, Heat (Rising Temperatures and Extreme Heat), and Precipitation.

[Waste Management Hierarchy](#): EPA developed the non-hazardous materials and waste management hierarchy in recognition that no single waste management approach is suitable for managing all materials and waste streams in all circumstances. The hierarchy ranks the various management strategies from most to least environmentally preferred. The hierarchy places emphasis on reducing, reusing, and recycling as key to sustainable materials management.

[Wastewater](#) is used water. It includes substances such as human waste, food scraps, oils, soaps and chemicals. In homes, this includes water from sinks, showers, bathtubs, toilets, washing machines and dishwashers.

Appendix A- Key Assumptions for Renewable Energy

Key Assumptions for Renewable Energy Study

1. In adopting these targets, the commission has assumed that the cost of renewable technologies will drop over time. Historically, emerging technologies have achieved similar reductions in cost as economies of scale and engineering advances work together. For example: the microprocessor computing power for an iPad 2 dropped from \$100,000,000 in 1980 to \$1,000,000 in 1990 to \$100 in 2010, huge reductions over 30 years; and the cost of solar power dropped from \$700 per kWh in 2010 to under \$200 per kWh in 2018, an 8-year period. See Forbes article “Declining Cost Curves Create Opportunities for Investors” 10-17-2018. There is no assurance however that the costs will decline as assumed.

2. Battery cost/kWh will drop over time

The table below provides the costs for residential, commercial, and utility scale batteries for key milestone years.

Table 1. Battery Storage Costs for Key Milestone Years (Installed Cost - \$/kWh)

Battery Energy Storage Technology	2023	2035	2042	2050
Residential BESS–2.5 hr	\$1,443	\$1,359	\$1,359	\$1,359
Commercial BESS–4 hr	\$774	\$729	\$729	\$729
Utility Scale BESS–4 hr (ESS-4)	\$514	\$484	\$484	\$484

3. Solar cost/kW will drop over time

- a. Solar Cost per kWh

Table 2. Solar PV Costs for Key Milestone Years (Installed Cost - \$/kW)

Solar PV Technology	2023	2035	2042	2050
Residential Rooftop Solar	\$3,400	\$2,892	\$2,892	\$2,892
Commercial Solar PV, Rooftop (Dsolar-CommRoof)	\$2,121	\$1,804	\$1,804	\$1,804
Commercial Solar PV, Ground-mount (Dsolar-CommGround)	\$2,236	\$1,902	\$1,902	\$1,902
Utility Scale Solar PV (USolar)	\$1,331	\$1,253	\$1,253	\$1,253
Green Hydrogen-Fueled CT (CT-Hydrogen)	\$1,561	\$1,828	\$1,828	\$1,828
Biofuel Internal Combustion Reciprocating Engine (Biomass)	\$520	\$552	\$552	\$552

Note – While FMPPA will be the source of some of the early solar contracts they may not be the provider for future contracts. The source of our future cost estimates is based on DOE (Department of Energy) and National Renewable Energy Laboratory (NREL) data.

- b. Generation Technology cost projects

The general industry consensus is that the forecasted installed cost for solar and battery storage technologies will continue to decline in cost for the foreseeable future through continued manufacturing and solar PV performance improvements. In addition, legacy technologies such as

combustion turbines are expected to continue to increase in cost based on inflationary pressures. The NREL Annual Technology Baseline (ATB) projects cost declines in renewable technologies and battery storage and cost increases in legacy technologies through 2050. Supply disruptions and changing tariff structures resulted in an increase in solar PV costs in 2021 and 2022. These recent cost increases are expected to be temporary as the solar PV manufacturers adjust in response to the changing world market.

To remain conservative in the cost projections of future technology costs used in this study, Quanta Technology estimated a lower near-term price decline for solar PV and batteries than the NREL ATB estimate. In addition, Quanta Technology estimated the price declines would stabilize after ten years for solar PV and after five years for battery storage. Further price increases for the legacy generation technologies also had a similar end to their forecasted continuing escalation where their costs would stabilize. The combination of these adjustments to the future escalation of technology costs provides a conservatively high cost for solar PV and battery storage and a conservatively low cost for legacy technologies.

The graph shown in Figure 1 below presents the annual costs of the subset of technologies that were ultimately included in the supply portfolios described later in this report.

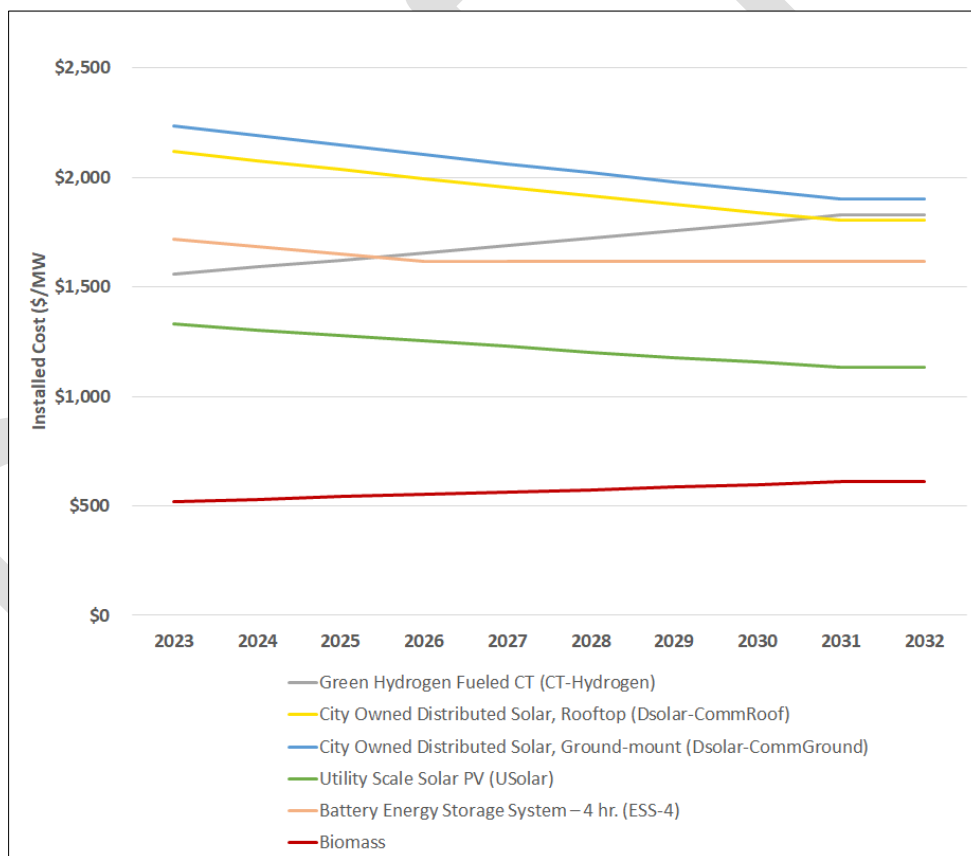


Figure 1. Projections of Generation and Storage Technologies Installed Costs

4. **Assumes that Underground Project will be completed by 2030** and the existing bonds will be paid off in 2036.
5. Burning garbage and trash emits carbon and other harmful emissions, and while it reduces dependence on fossil fuels, it is not considered by most in the industry to be renewable energy. On the other hand,

biomass generation is considered renewable energy even though it also emits carbon and other emissions. Biomass generation is renewable since it is a carbon-neutral fuel that traps carbon from the atmosphere during its growth cycle and then releases the same amount of carbon during the combustion process. Biomass generation is assumed to be a “Dispatchable” (On-Demand) Power source available at any time of day. Even though it also emits carbon and other emissions. Biomass generation is considered renewable since it is a carbon-neutral fuel that traps carbon from the atmosphere during the growth cycle of biofuels and then releases only the same amount of carbon during the combustion process. In addition, unlike solar PV, biomass generation is generally a “dispatchable” (on-demand) power source available at any time of day.

6. Quanta Technology used PPA pricing from existing CWP contracts and other data available for Florida power costs to estimate that future purchases from the Florida grid would. Florida currently relies principally on fossil-fueled resources. However, **as FPL and other utilities evolve their system to cleaner resources the power costs from the Florida grid are estimated to escalate at 2% annually regardless of the CWP decisions for its power supply.** Quanta Technology also assumed that the purchased power market in Florida would continue to provide CWP options to purchase specific types of power from large suppliers, such as FPL, OUC, and the FMPA.
7. In addition to “Variable Costs” of power such as the cost per kWh to buy from suppliers and the pass through of fuel costs, WPPC has “Fixed Costs” of maintaining the distribution system including the grid, power lines, and transformers. **WPPC’s Fixed Costs are expected to inflate by approximately 3%.**
8. WPPC expects that demand will increase to accommodate Electric Vehicles and will decrease as homes and businesses become more Energy Efficient.
 1. “Expected” Demand Growth Rate = 0.09%/yrs. “High” Demand Growth = 1.15%
 2. **“Expected” Energy Reduction from Energy Efficiency = 2% reduction/year for 5 years, which means that 10% less energy (compared to 2023) will be used by homes and businesses by 2028.**
Efficiency comes from:
 - a. LED lighting, Heat Pumps instead of old resistance heating in Winter, better attic and wall Insulation, double pane energy efficient Windows
 - b. Distributed Batteries and Solar from residential and commercial which allows the peak energy periods to level out with [Demand Response (DR) or Demand Side Management (DSM)] programming. In other words, homes and businesses use their own batteries during the times when the most energy is needed.
9. **This study DOES NOT assume electric grid upgrades are needed or funded for larger power lines or transformers.** Evaluating the Grid requirements as Residents install more Solar and Battery Walls will be part of the Strategic Planning background study.
10. Hurricane Outage Management: Sizing the Batteries or planning for back-up “Dispatchable”/On-Demand power for a Hurricane Event were not part of the Consultant’s original scope. However, in a subsequent addition to the Consultant’ scope two new scenarios 4A and 4B were added to estimate the increase in supply costs of a plan that provides resiliency for the potential of four days of disruptions to the CWP solar energy supply due to a hurricane or a severe tropical storm. The costs for repeated severe events occurring in 2023, 2035, 2042, and 2050 were estimated.
 - A new scenario 4A assumes the production output of all utility-scale solar PV contracted by CWP is significantly impacted for four days while all other generation sources remain unchanged. 100% of

the replacement energy during severe weather events is assumed to come from batteries contracted for or owned by CWP.

- A second new scenario 4B assumes the production output of all utility-scale solar PV contracted by CWP is significantly impacted for four days while all other generation sources remain unchanged. **The replacement energy during severe weather events is assumed to come from grid purchases from reserve units, generally older and less efficient fossil units in scenario 4B. Presumably, this premium will be recovered in the fuel cost adjustment.**

All other assumptions for the hurricane scenarios follow those defined in Scenario 3A. The results of the analysis are provided below.

Table 3 of Scenarios 3A, 4A and 4B

Year	Scenario 3A	Scenario 4A	Scenario 4B
20-year PVRR – 2023 to 2042 (\$M)	505	637	558
LCOE based on 20-year PVRR (\$/MWh)	90	113	99

11. Under Scenario 3A, While the Consultant recommends prioritizing Utility Scale Battery Storage over City owned ground and rooftop solar, the report assumes that the City Invests heavily in Solar Power as follows:

Table 4 and Costs of Solar PV on CWP Owned Buildings and Vacant Land

Year	Cumulative City Rooftop PV (MW)	Cumulative City Ground Mount PV (MW)	Cumulative Total MW)	Cumulative Cost (\$M)
2035	0.98	0.98	1.96	\$3.8
2042	0.98	2.95	3.94	\$7.5
2050	0.98	2.95	3.94	\$7.5

Currently there is no city land set aside for Ground based Solar.

However, Under Scenario 3E, there is no requirement of the City to own Solar on City Owned property. However, there is an expectation that, depending on the capacity to issue bonds and borrow for the cost of construction, the City may own Solar if the business case and benefit are deemed appropriate.

12. Assumes that the purchased power market continues to allow WPPC to purchase power from large suppliers, such as Florida Power, OUC, Florida Municipal Power Authority and independent power developers.
13. Adoption of Residential Electric Vehicles, Solar Panels, and Energy Storage/Batteries are assumed to be closely aligned and increasingly adopted as roofs and vehicles are replaced. The study expects a reduction in net energy supplied to residents. The study does NOT assume significant buyback of Solar power under net metering and does NOT assume any “Virtual Power Plant” benefits, although both may occur if “Time of Use” rates are implemented as recommended. The study assumes Residents will invest in Electric Vehicles, Roof top Solar and Batteries voluntarily at their personal cost. **By 2042, the study forecasts:**

- **Up to 95% of the registered vehicles in CWP may be electric vehicles.**
- **Approximately 35% of residential rooftops will have solar PV installed,** with the capacity to generate approximately 49,000 MWh of energy per year, which is approximately 11% of the total CWP requirement.
- **Approximately 35% of residences will have battery energy storage systems (BESS) installed.**

Proforma Financial Projection Assumptions- Based on Actual History and Experience. Incorporates Cost of Electricity and estimated demand originating from the Quanta Study.

14. In the forecast of the production costs for years 2043-2050 when Clean Hydrogen Combustion Turbine (CT-Hydrogen) begins to play an important role in the renewable energy strategy, the Commission has assumed a cost for power from a portfolio of substantially carbon free resources will average of \$133/MWh for power costs in 2042. These costs reflect the costs prior to the introduction of any costs associated with a CT-Hydrogen resource or another clean technology that could supply a firm dispatchable resource. In this analysis, the addition of the CT-Hydrogen resource is forecast to drive the average power costs to \$255/MWh in 2050, largely due to the cost forecast of clean hydrogen costs of \$366/MWh in 2050.

The Commission is unwilling at this time to accept a plan through 2050 that includes the current costs assumptions for CT-Hydrogen. At this time, the Commission can support a conditional plan that establishes an upper limit to the average power costs after 2042 that would not exceed 3% escalation from the costs forecast for 2042. This 3% escalation limit would require a significant reduction in the costs of CT-Hydrogen or an alternate carbon free generation technology that could serve the same role in the City's power portfolio.

The Commission is willing to accept power costs reflecting a 3% escalation from the 2042 costs of \$133/MWh, yielding a maximum acceptable average power costs in 2050 of \$168/MWh. More specifically, **the commission adopts values for the Maximum Annualized Power costs shown in the right column of the following table.**

Table 5 Power Costs

Year	Annualized Cost (\$/MWh)	Annualized Cost (\$/MWh) escalated at 3% after 2042	LCOE (\$/MWh) with a 3% escalation	Maximum Acceptable Annualized Power Costs
2023	\$72		\$70	
2024	\$72		\$73	
2025	\$72		\$75	
2026	\$74		\$77	
2027	\$75		\$79	
2028	\$77		\$82	
2029	\$78		\$84	
2030	\$77		\$87	
2031	\$76		\$89	
2032	\$80		\$92	
2033	\$84		\$95	
2034	\$89		\$97	
2035	\$91		\$100	\$91
2036	\$107		\$103	
2037	\$112		\$106	
2038	\$119		\$110	
2039	\$126		\$113	
2040	\$133		\$116	
2041	\$133		\$120	
2042	\$133	\$133	\$123	\$133
2043	\$132	\$137	\$127	
2044	\$131	\$141	\$131	
2045	\$127	\$145	\$135	
2046	\$131	\$150	\$139	
2047	\$136	\$154	\$143	
2048	\$140	\$159	\$147	
2049	\$138	\$164	\$152	
2050	\$255	\$168	\$156	\$168

15. Residential Revenues Average \$/kWh are based on rates effective May 1, 2023. **The baseline Proforma assumes a 3% annual cost of power increase** (which corresponds to the 3% “Cost Recovery Growth/Escalation Rate” illustrated by the orange line on Figure 30 of the study report results for Scenario 3D).
16. Commercial Revenues Average \$/kWh are based on Trailing 12 months history but have been adjusted to reflect the elimination of “Legacy Time of Use Rates” (which are carryovers from the City’s acquisition of the Power Company from Duke Power) and the current rates which became effective May 1, 2023. **The baseline Proforma assumes a 3% annual cost of power increase** (which corresponds to the 3% “Cost Recovery Growth/Escalation Rate” illustrated by the orange line on Figure 30 of the study report results for Scenario 3D).

17. No "Time of Use" or "TOU" rates are currently in effect, nor are they included in the cash flow forecast at this time. Future strategic plans will likely add TOU rates to incentivize load management.
18. Revenues include franchise fees. Revenues do NOT include Utility Taxes or Sales Taxes, which are a pass through to the city and state, respectively. Revenues include Fuel Cost Adjustments even though they are a "pass through" and are also shown as part of the Cost of Electricity expenses.
19. **Fixed Operating and Grid Costs are based on the City's ten-year proforma for the fiscal year beginning October 1, 2023.**
20. Cost of Electricity is itemized based on source of energy. The Fuel Cost Adjustment Expense is itemized based on the source of fuel and equals the Fuel Cost Adjustment Revenue. In other words, the Fuel Cost Adjustment is an "in and out" line item.
21. Operating Transfers Out is the franchise fee and the revenue share transferred to the General Fund for general government purposes.
22. Cumulative Reserves are the working capital (current assets minus current liabilities) requirements established by the City's Administrative Policy which requires a minimum of 45 days operating expenses excluding amortization. Any excess would be used for capital projects and for the transitional costs to renewable energy.
23. Debt Service is the principal and interest required on bonds.
24. Capital Projects include the undergrounding project and other construction projects. Inventory Purchases are for major equipment and supplies such as transformers. Replacement Reserves are reserves set aside for periodic replacement of capitalized equipment, systems and building components.
25. **Investment in or Debt Service on Renewable Energy generation or storage. This includes construction of City owned solar; construction of City owned Battery storage systems; debt service on "green bonds" issued to construct city owned assets; co-investment in joint ventures that will own renewable energy generation or storage. This does not include long-term purchase power commitments.**
26. **The Baseline Budget and Proforma financial projections both assume the same amortization of the CWP debt incurred to finance the undergrounding of the CWP distribution system. with the existing bonds paid off in 2036.**