



William P. Cox  
Senior Counsel  
Florida Power & Light Company  
700 Universe Boulevard  
Juno Beach, FL 33408-0420  
(561) 304-5662  
(561) 691-7135 (Facsimile)

July 12, 2024

**-VIA ELECTRONIC FILING -**

Adam Teitzman  
Commission Clerk  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, FL 32399-0850

**Re: Docket No. 20240012-EG: Commission Review of Numeric Conservation Goals (Florida Power & Light Company) - Errata of Andrew W. Whitley**

Dear Mr. Teitzman:

Enclosed for filing on behalf of Florida Power & Light Company (FPL) are the following documents correcting certain portions of the Direct Testimony of Andrew W. Whitley and certain associated exhibits previously filed on April 2, 2024 [DN 01562-2024]:

- Errata of Andrew W. Whitley
- Attachment 1 – Complete clean version of Corrected Direct Testimony of Andrew Whitley
- Attachment 2 – Complete clean versions of Corrected Exhibits AWW-6, AWW-7, AWW-10, AWW-11, AWW-12, AWW-13, AWW-14, and AWW-15

The above-referenced documents update the numbers and analyses in the direct testimony and exhibits of FPL witness Andrew W. Whitley to reflect a correction in the per installation savings for FPL's proposed Low Income program as identified by the Errata of FPL witness John N. Floyd, which is being filed contemporaneously in this docket. This correction results in a revised total savings of 69 Summer MW, 20 Winter MW, and 153 GWh over the ten years of the goals period. There are no other changes or corrections to FPL witness Whitley's direct testimony and exhibits at this time.

Please contact me if there are any questions related to this filing.

Sincerely,

s/ William P. Cox  
William P. Cox  
Fla. Bar No. 0093531

Enclosures  
cc: Counsel for Parties of Record (w/encl.)

Florida Power & Light Company

700 Universe Boulevard, Juno Beach, FL 33408

**CERTIFICATE OF SERVICE**

**Docket No. 20240012-EG**

I **HEREBY CERTIFY** that a true and correct copy of the foregoing was served by electronic delivery this 12th day of July, 2024 to the following:

Jacob Imig  
Jonathan Rubottom  
Office of the General Counsel  
Florida Public Service Commission  
2540 Shumard Oak Blvd.  
Tallahassee, Florida 32399-0850  
[jimig@psc.state.fl.us](mailto:jimig@psc.state.fl.us)  
[jrubotto@psc.state.fl.us](mailto:jrubotto@psc.state.fl.us)  
[discovery-gcl@psc.state.fl.us](mailto:discovery-gcl@psc.state.fl.us)

Bradley Marshall  
Jordan Luebke  
EarthJustice  
111 S. Martin Luther King Jr. Blvd.  
Tallahassee, Florida 32301  
[bmarshall@earthjustice.org](mailto:bmarshall@earthjustice.org)  
[jluebke@earthjustice.org](mailto:jluebke@earthjustice.org)  
[flcaseupdates@earthjustice.org](mailto:flcaseupdates@earthjustice.org)  
**Attorneys for Florida Rising, League of  
United Latin American Citizens of  
Florida, and Environmental  
Confederation of Southwest Florida**

Sean T. Garner, General Counsel  
Erik Sayler, Senior Attorney  
Florida Department of Agriculture  
& Consumer Services  
Office of General Counsel  
The Mayo Building  
407 S. Calhoun Street, Suite 520  
Tallahassee, FL 32399-0800  
[GeneralCounsel@fdacs.gov](mailto:GeneralCounsel@fdacs.gov)  
[Erik.Sayler@fdacs.gov](mailto:Erik.Sayler@fdacs.gov)  
[Kelly.wright@fdacs.gov](mailto:Kelly.wright@fdacs.gov)  
**Attorneys for Florida Department of  
Agriculture & Consumer Services**

Jon C. Moyle, Jr.  
Karen A. Putnal  
Moyle Law Firm, P.A.  
118 North Gadsden Street  
Tallahassee, Florida 32301  
[jmoyle@moylelaw.com](mailto:jmoyle@moylelaw.com)  
[kputnal@moylelaw.com](mailto:kputnal@moylelaw.com)  
**Attorneys for Florida Industrial Power Users  
Group**

Stephanie U. Eaton  
Spilman Thomas & Battle, PLLC  
110 Oakwood Drive, Suite 500  
Winston-Salem, NC 27103  
[seaton@spilmanlaw.com](mailto:seaton@spilmanlaw.com)  
and  
Steven W. Lee  
Spilman Thomas & Battle, PLLC  
1100 Bent Creek Boulevard, Suite 101  
Mechanicsburg, PA 17050  
[slee@spilmanlaw.com](mailto:slee@spilmanlaw.com)  
**Attorneys for Walmart Inc.**

Brooks Rumenik, Director  
Office of Energy  
**Florida Department of Agriculture  
& Consumer Services**  
[Brooks.Rumenik@fdacs.gov](mailto:Brooks.Rumenik@fdacs.gov)

William C. Garner  
Law Office of William C. Garner, PLLC  
3425 Bannerman Road Unit 105, No. 414  
Tallahassee, FL 32312  
[wgarner@wclawoffice.com](mailto:wgarner@wclawoffice.com)  
**Attorney for Southern Alliance for Clean  
Energy**

By: s/ William P. Cox  
William P. Cox

**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**

Commission Review of Numeric  
Conservation Goals (Florida Power & Light  
Company)

Docket No: 20240012-EG

Filed: July 12, 2024

**ERRATA SHEET OF ANDREW W. WHITLEY**

Florida Power & Light Company (“FPL”) hereby submits this errata sheet to correct certain portions of the Direct Testimony of Andrew W. Whitley and certain associated exhibits filed in the above referenced docket on April 2, 2024.

<b><u>DIRECT TESTIMONY</u></b>	<b><u>CHANGE</u></b>
Page 6, line 13	<ul style="list-style-type: none"> <li>• Replace 408 with 419</li> </ul>
Page 6, line 14	<ul style="list-style-type: none"> <li>• Replace 316 with 326</li> </ul>
Page 6, line 14	<ul style="list-style-type: none"> <li>• Replace 885 with 931</li> </ul>
Page 32, line 2	<ul style="list-style-type: none"> <li>• Replace \$2.3 with \$2.5</li> </ul>
Page 33, line 19	<ul style="list-style-type: none"> <li>• Replace 408 with 419</li> </ul>
Page 33, line 20	<ul style="list-style-type: none"> <li>• Replace 316 with 326</li> </ul>
Page 33, line 20	<ul style="list-style-type: none"> <li>• Replace 885 with 931</li> </ul>

<b><u>EXHIBIT</u></b>	<b><u>CHANGE</u></b>
Exhibit AWW-6	<ul style="list-style-type: none"> <li>• Corrected FPL Proposed and TRC Plan Summer MWs</li> </ul>
Exhibit AWW-7	<ul style="list-style-type: none"> <li>• Corrected FPL Proposed and TRC Plan Cumulative DSM Additions MWs</li> </ul>
Exhibit AWW-10	<ul style="list-style-type: none"> <li>• Corrected column (7) DSM Energy Reduction GWh values and Levelized System Average Electric Rate from 14.8485 to 14.8516</li> </ul>
Exhibit AWW-11	<ul style="list-style-type: none"> <li>• Corrected column (7) DSM Energy Reduction GWh values and Levelized System Average Electric Rate from 14.8849 to 14.8880</li> </ul>
Exhibit AWW-12	<ul style="list-style-type: none"> <li>• Corrected Levelized System Average Electric Rates for the Proposed Plan from 14.8485 to 14.8516 and the TRC Plan from 14.8849 to 14.8880</li> </ul>

Exhibit AWW-13	<ul style="list-style-type: none"> <li>Corrected column (5) “What If” One-Time Cost from 2,369,877 to 2,504,860 and Levelized System Average Electric Rate from 14.8849 to 14.8880</li> </ul>
Exhibit AWW-14	<ul style="list-style-type: none"> <li>Corrected column (5) “What If” One-Time Cost from 1,593,230 to 1,593,560 and Levelized System Average Electric Rate from 14.8849 to 14.8880</li> </ul>
Exhibit AWW-15	<ul style="list-style-type: none"> <li>Corrected the Projected Electric Rate values for the FPL Proposed Resource Plan and TRC Resource Plan</li> </ul>

Provided as “**Attachment 1**” is a complete clean version of the Direct Testimony of Andrew W. Whitley that reflects the above referenced corrections. Provided as “**Attachment 2**” are complete clean version of Corrected Exhibits AWW-6, AWW-7, AWW-10, AWW-11, AWW-12, AWW-13, AWW-14, and AWW-15 that reflect the above-referenced corrections.

Respectfully submitted this 12th day of July 2024,

By: s/William p. Cox

William P. Cox, Senior Counsel

Fla. Bar No. 0093531

Christopher T. Wright, Managing Attorney

Fla. Auth. House Counsel No. 1007055

Florida Power & Light Company

700 Universe Boulevard

Juno Beach, Florida 33408-0420

Telephone: (561) 304-5662

Facsimile: (561) 691-7135

Email: [will.p.cox@fpl.com](mailto:will.p.cox@fpl.com)

Email: [christopher.wright@fpl.com](mailto:christopher.wright@fpl.com)

**ATTACHMENT 1**

**Florida Power & Light Company  
Docket No. 20240012-EG**

**Corrected Direct Testimony of Andrew W. Whitley  
Corrected by Errata Filed July 12, 2024**

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**BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION**  
**FLORIDA POWER & LIGHT COMPANY**  
**CORRECTED DIRECT TESTIMONY OF ANDREW W. WHITLEY**  
**DOCKET NO. 20240012-EG**  
**APRIL 2, 2024**

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1 **I. INTRODUCTION**

2

3 **Q. Please state your name, business address, employer and position.**

4 A. My name is Andrew W. Whitley. My business address is 700 Universe Blvd.,  
5 Juno Beach, Florida 33408. I am employed by Florida Power & Light Company  
6 (FPL) as Engineering Manager in the Integrated Resource Planning department  
7 of FPL's Finance Business Unit.

8 **Q. Please describe your duties and responsibilities in that position.**

9 A. In my current position as Engineering Manager of Integrated Resource  
10 Planning, I am responsible for the management and coordination of economic  
11 analyses of alternatives to meet FPL's resource needs and maintain system  
12 reliability. These analyses are designed to determine the magnitude and timing  
13 of resource needs for the FPL system and then develop the integrated resource  
14 plan with which those resource needs will be met. The analyses are also  
15 designed to identify potential opportunities to improve system economics  
16 and/or enhance system reliability for customers.

17 **Q. Please describe your educational background and professional experience.**

18 A. I graduated from Lehigh University in 2004 with a Bachelor of Science in  
19 Mechanical Engineering. I joined FPL in 2004 as part of FPL's Distribution  
20 Business Unit (now part of the Power Delivery business unit) and performed  
21 various engineering tasks related to providing new service as well as  
22 maintaining the reliability of existing services to FPL's customers. In 2007, I  
23 joined the team now known as the Integrated Resource Planning (IRP) group.  
24 Since that time, I have been involved in and supported a variety of resource



1 planning projects for FPL, including FPL's Ten Year Site Plans (TYSP), Solar  
2 Base Rate Adjustments (SoBRA), need determination proceedings for new  
3 power plants under the Florida Power Plant Siting Act, (including the  
4 Okeechobee Clean Energy Center in 2015 and the Dania Beach Clean Energy  
5 Center in 2018), Base Rate proceedings, and the Demand-Side Management  
6 (DSM) goals proceedings. I became the Manager of the IRP group in 2022 and  
7 have served as the project leader for FPL's TYSPs since 2022.

8 **Q. Have you previously testified on resource planning issues before the**  
9 **Florida Public Service Commission (FPSC or the Commission)?**

10 A. Yes. I testified in FPL's 2019 DSM goals proceeding (Docket No. 20190015-  
11 EG). My testimony in that docket focused on FPL's resource planning process  
12 and how it related to the development of demand-side management portfolios.  
13 I also provided testimony on resource planning topics in FPL's 2024 Fuel and  
14 Purchased Power Cost-Recovery Clause Docket (Docket No. 20230001-EI). In  
15 addition, I appeared before the Commission at its 2022 and 2023 workshops on  
16 the Florida utilities' TYSPs.

17 **Q. Are you sponsoring any exhibits in this case?**

18 A. Yes. I am sponsoring Exhibits AWW-1 through AWW-17, which are attached  
19 to my testimony:

- 20 • Exhibit AWW-1 – Economic Elements Accounted for in DSM  
21 Preliminary Screening Tests: Benefits & Costs
- 22 • Exhibit AWW-2 – Summary Results of Preliminary Economic  
23 Screening of Individual DSM Measures

- 1 • Exhibit AWW-3 – Summary Results of Preliminary Economic  
2 Screening of Individual DSM Measures: Sensitivity Cases
- 3 • Exhibit AWW-4 – Forecasted Fuel and Environmental Compliance  
4 Costs
- 5 • Exhibit AWW-5 – Projection of FPL's Resource Needs for 2024 - 2035  
6 with No Incremental DSM Signups After 2024
- 7 • Exhibit AWW-6 – Comparison of DSM Reasonably Achievable  
8 Summer MW Values with FPL's Projected Summer Resource Needs
- 9 • Exhibit AWW-7 – Overview of Supply Only and With DSM Resource  
10 Plans
- 11 • Exhibit AWW-8 – Levelized System Average Electric Rate Calculation  
12 for the Supply Only Resource Plan
- 13 • Exhibit AWW-9 – Levelized System Average Electric Rate Calculation  
14 for the RIM Resource Plan
- 15 • Exhibit AWW-10 – Levelized System Average Electric Rate  
16 Calculation for the FPL Proposed Resource Plan
- 17 • Exhibit AWW-11 – Levelized System Average Electric Rate  
18 Calculation for the TRC Resource Plan
- 19 • Exhibit AWW-12 – Comparison of the Resource Plans: Economic  
20 Analyses Results
- 21 • Exhibit AWW-13 – Additional Cost Needed to be Added to the RIM  
22 Plan to Increase its Levelized System Average Electric Rate to That of  
23 the TRC Plan

- 1 • Exhibit AWW-14 – Additional Cost Needed to be Added to the FPL  
2 Proposed Plan to Increase its Levelized System Average Electric Rate  
3 to That of the TRC Plan
- 4 • Exhibit AWW-15 – Comparison of the Resource Plans: Projection of  
5 System Average Electric Rates and Customer Bills (Assuming 1,000  
6 kWh Usage)
- 7 • Exhibit AWW-16 – Comparison of the Resource Plans: Projection of  
8 System Emissions
- 9 • Exhibit AWW-17 – Comparison of the Resource Plans: Projection of  
10 System Oil and Natural Gas Usage

11 **Q. Please summarize your testimony.**

- 12 A. Using FPL’s resource planning process and the latest forecasts, assumptions,  
13 and cost estimates, FPL’s proposed DSM goals are 419 megawatts (MW)  
14 Summer demand, 326 MW Winter demand, and 931 gigawatt-hours (GWh)  
15 energy reduction for the period 2025 through 2034. In my testimony, I explain:
- 16 - FPL’s resource planning process, how it applies to DSM options, and  
17 how it treats DSM and supply options equally;
  - 18 - A review of the relevant assumptions used in FPL’s resource planning  
19 process;
  - 20 - The various tests used in the preliminary cost-effectiveness screening  
21 and the results of this screening of DSM measures;

22

- 1                   - How the projected portfolios of DSM compare to FPL’s resource needs
- 2                   in the 2025-2034 timeframe;
- 3                   - The Supply Only Resource Plan, With DSM Resource Plans, and how
- 4                   all of these plans compare on both economic and non-economic bases;
- 5                   and
- 6                   - How the final resource plan based on FPL’s proposed DSM goals will
- 7                   continue to provide reliable electric service for FPL’s customers at low
- 8                   electric rates.

9

10                   **II. FPL’S RESOURCE PLANNING PROCESS**

11

12                   **Q. Are FPL’s proposed DSM goals based on FPL’s most recent resource**

13                   **planning process?**

14                   A. Yes. Beginning in 2023, and continuing into the first quarter of 2024, FPL

15                   undertook a months-long process to determine its resource plan for use in the

16                   2024 DSM goals filing, as well as all other 2024 analyses, including the 2024

17                   TYSP. The assumptions used in FPL’s planning process were developed in late

18                   2023 and early 2024 and accurately represent a current projection of FPL’s

19                   system for the ten-year planning period of 2025 through 2034.

1       **Q.     Why did FPL develop its proposed DSM goals based upon its most recent**  
2       **planning process?**

3       A.     There are two important reasons FPL used its most recent planning process to  
4       develop its DSM goals. First, it is required by the Commission’s DSM Goals  
5       Rule 25-17.0021(3), Florida Administrative Code. Second, it is important for  
6       a utility to use its own resource planning process while setting DSM goals, or  
7       performing the analysis of any resource option, because each utility’s system  
8       has its own specific characteristics that can alter the timing and magnitude of  
9       its resource needs and influence the cost-effectiveness of resource options.

10      **Q.     What are the objectives of FPL’s integrated resource planning process?**

11      A.     There are three main goals of FPL’s resource planning process:

- 12           1. Identify the timing of FPL’s resource needs. The timing of future  
13           resource needs is largely determined by reliability standards (such as  
14           reserve margins and loss-of-load probability requirements).
- 15           2. Identify the magnitude of these resource needs, *i.e.*, how many MW of  
16           capacity are needed to satisfy reliability criteria.
- 17           3. Identify the type of resources, either supply-side or demand-side, that  
18           can meet these capacity needs. On an economic basis, this selection is  
19           determined by the option that is projected to result in the lowest electric  
20           rates for FPL’s customers.

21      **Q.     Please provide an overview of FPL’s IRP process.**

22      A.     An overview of FPL’s IRP process is presented annually in FPL’s TYSP.  
23      FPL’s IRP process can be summarized by the following four tasks:

- 1                   - Task 1: Determine the magnitude and timing of FPL’s new resource
- 2                   needs.
- 3                   - Task 2: Identify the resource options and resource plans that are
- 4                   available to meet the determined magnitude and timing of FPL’s
- 5                   resource needs (*i.e.*, identify the available competing options and
- 6                   resource plans).
- 7                   - Task 3: Evaluate the competing resource options and resource plans
- 8                   based on system economics and non-economic factors.
- 9                   - Task 4: Select a resource plan, as needed, to meet nearer-term options.

10       **Q.    How does FPL apply its IRP process to the specific analyses that are needed**  
11       **to develop DSM goals?**

12       A.    To develop proposed DSM goals for the Commission’s review, FPL freezes  
13       DSM additions in its assumptions before the start of the next DSM goals period.  
14       FPL assumes no incremental DSM and, “starting from scratch,” projects how  
15       much DSM should be implemented for the next ten years. FPL approaches that  
16       task by applying its IRP process through a well-established six-step analysis.  
17       This same basic process has been used by FPL in prior DSM goals dockets.

1       **Q.    When evaluating the economics of supply-side or demand-side resource**  
2       **options to meet its reliability criteria, does FPL select these resources on**  
3       **the basis of lowest cumulative present value of revenue requirements**  
4       **(CPVRR)?**

5       A.    No.  When evaluating the economics among supply-side and demand-side  
6       resource alternatives, FPL bases its evaluation on the system average electric  
7       rates.  If, for example, two resource plans satisfy all of FPL’s reliability  
8       requirements, the more economic plan for all of FPL’s customers is the plan  
9       that results in the lowest Levelized System Average Electric Rate.  This  
10      calculation is performed by dividing a utility’s annual revenue requirements for  
11      that year by the utility’s Net Electric Load (NEL) for that year.  This same  
12      calculation is performed for each year of the analysis, then the results for all  
13      years are summed on a present value basis.  This cumulative present value is  
14      then converted into a Levelized System Average Electric Rate for the period of  
15      the analysis.

16  
17      Note that if one were comparing two resource plans that have the same level of  
18      DSM, the two plans will have the same NEL.  Therefore, the plan with the lower  
19      CPVRR in that scenario also would have the lower Levelized System Average  
20      Electric Rate.  However, when comparing plans with different DSM portfolios,  
21      those plans will have different NELs and cannot be evaluated on CPVRR alone.  
22      Therefore, in order to compare plans with different DSM

1 portfolios on an economic basis, it is appropriate to analyze each plan based on  
2 the Levelized System Average Electric Rate.

3 **Q. Please summarize the six-step resource planning process for developing**  
4 **DSM goals.**

5 A. The process can be summarized as follows:

6 Step 1: The Technical Potential for DSM is determined in which practical  
7 considerations of cost, market forces, the utility's resource needs, and  
8 other factors are all ignored. The end result of this step is a list of  
9 individual DSM measures that are theoretically available in a utility's  
10 service territory. Witness Herndon with Resource Innovations  
11 describes in his direct testimony the development of the projected  
12 Technical Potential values for FPL that were used in the rest of FPL's  
13 analyses.

14 Step 2: Assuming no incremental DSM signups occur after December 31,  
15 2024, FPL's projected resource needs for 2025 through 2034 were  
16 determined. Two determinations of resource needs are made: one if  
17 the resource needs are theoretically met solely by Supply options; and  
18 one if the resource needs are theoretically met solely by DSM options.  
19 These two projections are different because of FPL's 20% total  
20 reserve margin criterion. For example, if the resource need to be met  
21 solely by DSM options for a given year is 100 MW, the resource need  
22 to be met solely by Supply options for the same year is  $100 \text{ MW} \times (1$   
23  $+ 0.2) = 120 \text{ MW}$ .



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The results of these determinations are used in two ways. First, using the projected resource needs, if the needs are met solely by Supply options, a generation addition is selected for use in the preliminary economic screening of DSM measures, which occurs in Step 3. Second, these determinations are used later in Step 5 to create a “Supply Only” Resource Plan and “With DSM” Resource Plans, which are then used for the detailed system economic and non-economic analyses that occur in Step 6.

Step 3: In this step, each individual DSM measure identified in the Step 1 Technical Potential work is analyzed using a series of preliminary economic screening evaluations against a single Supply option that DSM could potentially avoid or defer. The screening evaluations divide into two separate paths depending on the primary cost-effectiveness test used in the analysis. Consistent with the Commission’s DSM Goals Rule 25-17.0021, one path utilizes both the Rate Impact Measure (RIM) test and the Participant test, while the other path utilizes the Total Resource Cost (TRC) test and the Participant test. At the end of the screening for both of these paths, two more steps are conducted on both of the screening paths. First, the remaining measures are screened for free riders based on a “years-to-payback” test. Second, the maximum incentive the utility can offer and preserve cost-effectiveness for each remaining DSM measure is calculated.

1 Step 4: The remaining DSM measures that pass the respective economic  
2 screening tests in Step 3, together with their accompanying maximum  
3 incentive levels, are then analyzed to develop potential DSM  
4 programs and portfolios over the 2025 through 2034 DSM goals  
5 period. Again, this step is divided into two separate paths of analysis  
6 depending on the cost-effectiveness screening tests that are being  
7 applied. The resulting projection for each DSM program represents  
8 the projected maximum annual signups for each year of the ten-year  
9 DSM goals period. Cumulatively, the sum of these projected  
10 maximum annual signups for each DSM program identifies how many  
11 MW of DSM resources are projected to be available each year to  
12 potentially meet FPL’s projected annual resource needs. FPL witness  
13 Floyd addresses the process of evaluating the DSM program portfolios  
14 from the remaining DSM measures, using program-specific  
15 administrative costs, incentives, and adoption projections to determine  
16 the reasonably achievable DSM program potential over the period  
17 2025-2034 in his direct testimony.

18 Step 5: In this step, the projections of resource needs developed previously in  
19 Step 2 are used again in several ways. First, FPL uses the projection  
20 of resource needs, if the needs are met solely by Supply options, to  
21 develop a resource plan in which only Supply options are added. This  
22 resource plan is referred to as the “Supply Only”

1 Resource Plan. Next, FPL compares the projected maximum annual  
2 DSM MW signups identified in Step 4 to the projected annual  
3 resource needs if those needs are met solely by DSM options. From  
4 this comparison, the “With DSM” Resource Plans are developed.  
5 These resource plans may consist solely of DSM measures, or a  
6 combination of DSM and Supply options, for the ten-year period. At  
7 the conclusion of Step 5, the Supply Only and the With DSM  
8 Resource Plans have been developed for more detailed system  
9 analyses in Step 6.

10 Step 6: The resource plans from Step 5 are analyzed from both economic and  
11 non-economic perspectives. The recommended resource plan based on  
12 these perspectives is identified, and the amount of incremental DSM  
13 included in that plan is selected as FPL’s proposed DSM goals for the  
14 2025 - 2034 time period.

15 **Q. Does FPL’s six-step analytical resource planning process outlined above**  
16 **result in Supply and DSM resource options being evaluated on a level**  
17 **playing field?**

18 A. Yes. FPL’s analyses evaluate both Supply and DSM resource options in terms  
19 of each resource option’s ability to meet FPL’s resource needs. In addition,  
20 these analyses allow the resources to be fully evaluated from both economic  
21 and non-economic perspectives, using an identical set of evaluation metrics.  
22 For the economic analyses, all projected cost impacts on the electric rate levels  
23 of FPL’s customers are accounted for in these analyses.

1       **Q.     Which of the six steps outlined above will you be addressing in your**  
2       **testimony?**

3       A.     My testimony addresses Steps 2, 3, 5, and 6 of this process, along with other  
4       topics. Witness Herndon addresses Step 1, and witness Floyd addresses Step 4  
5       and portions of Step 5 along with other topics.

6

7       **III.    STEP 2 OF FPL’S PLANNING PROCESS: METHODS AND**

8       **ASSUMPTIONS USED TO PROJECT FPL’S RESOURCE NEEDS**

9

10      **Q.     How does FPL determine its projected future resource needs?**

11      A.     FPL uses three reliability criteria in projecting its future resource needs. One  
12      criterion is a minimum total reserve margin of 20% for both Summer and  
13      Winter peak hours. The 20% total reserve margin criterion was approved by  
14      the FPSC in Order No. PSC-99-2507-S-EU issued in Docket No. 981890-EU.

15

16      The second reliability criterion used by FPL is a Loss-of-Load-Probability  
17      (LOLP) criterion. LOLP is a projection of how well an electric utility system  
18      may be able to meet its firm demand (*i.e.*, a measure of how often firm load  
19      may exceed available resources). In contrast to a reserve margin approach that  
20      looks at the one Summer peak hour and the one Winter peak hour, the LOLP  
21      approach looks at the peak hourly demand for each day of the year. The LOLP  
22      approach takes into consideration the probability of individual generators being  
23      out-of-service due to scheduled maintenance or forced

1 outages. LOLP is typically expressed in terms of “numbers of times per year”  
2 that the system firm demand could not be served. FPL’s LOLP criterion is a  
3 maximum of 0.1 days per year. This LOLP criterion is commonly used  
4 throughout the electric utility industry.

5  
6 The third reliability criterion used by FPL is a minimum generation-only  
7 reserve margin (GRM) of 10%. The issue of having a sufficient generation  
8 component of the projected total reserve margin has been discussed annually in  
9 FPL’s TYSP beginning in 2011, and the GRM was adopted by FPL as a  
10 reliability criterion beginning in 2014. The GRM must be applied only after  
11 evaluating the amount of DSM in a resource plan to determine whether the  
12 resource plan is too dependent upon DSM.

13 **Q. What forecasts and assumptions did FPL use in its 2024 planning process?**

14 A. Every year, FPL updates its forecasts as part of its IRP process and in support  
15 of filing its yearly TYSP, including considerations of supply-side efficiencies.  
16 In its 2024 resource planning work, including the DSM portfolio analyses for  
17 this docket, FPL is using the following forecasts:

- 18 1. A forecast of fuel prices (natural gas, coal, and oil), dated September 1,  
19 2023;
- 20 2. A forecast of projected hourly load, dated November 1, 2023; and

21



1 context, FPL's 2024 NEL forecast for the year 2034 is 155,677,526 MWh,  
2 which means that the energy reduction delivered through Codes and Standards  
3 represents more than 7% of the total of FPL's projected NEL.

4 **Q. From a resource planning perspective, does the energy-efficiency impact**  
5 **of Codes and Standards differ at all from energy efficiency resulting from**  
6 **utility DSM programs?**

7 A. No. Both types of energy efficiency act to reduce FPL's peak demand and  
8 energy on the customer side of the meter. One kW of peak demand reduction  
9 will avoid or defer new generation whether it comes from Codes and Standards  
10 or from a utility-sponsored DSM program. Likewise, the associated fuel and  
11 emission impacts from one kWh of energy reduction will be realized regardless  
12 of the impetus for that energy reduction.

13 **Q. Once all of these forecasts and assumptions were developed, how did FPL**  
14 **develop the resource plans you discuss in this docket?**

15 A. FPL developed these resource plans using the AURORA planning model. The  
16 AURORA model utilizes dynamic programming to conduct an extensive  
17 evaluation of all possible resource plans that can meet a utility's reliability  
18 requirements. FPL and the Commission have relied upon this model in  
19 numerous prior proceedings, and it was used to develop FPL's 2024 TYSP.  
20 AURORA incorporated a number of FPL forecasts and assumptions into its  
21 analysis including the following:

22 - The 20% total Reserve Margin reliability criterion described earlier;

- 1           - Forecasts for peak load, energy, fuel prices, and environmental
- 2           compliance costs;
- 3           - The existing capabilities of the units on FPL’s systems, and any planned
- 4           changes to those units; and
- 5           - Projections of fixed and variable costs, and the operating characteristics,
- 6           of a variety of generation options to meet FPL’s resource needs in the
- 7           future.

8           After incorporating all of these parameters, AURORA evaluated hundreds of  
9           possible resource plans that met FPL’s future resource needs using only  
10          generation or supply options. At the end of this evaluation, the resource plan  
11          with the lowest projected electric rate and best reliability for FPL’s customers  
12          was identified as FPL’s Supply Only Plan.

13          **Q.    What Supply option was selected for use in the preliminary cost-**  
14          **effectiveness screening?**

15          A.    A 1,991 MW (Summer) combined-cycle (CC) unit with a projected in-service  
16          year of 2033 was selected as the unit to be considered potentially avoidable for  
17          the preliminary screening work. As much of the screening work was conducted  
18          in 2023 (before the 2024 TYSP was finalized), the screening analysis was based  
19          on the 2033 CC unit that was in FPL’s resource plan from the 2023 TYSP.

20          **Q.    Why did FPL select the 2033 CC unit as its avoided unit?**

21          A.    This unit was selected based on several factors. First, as part of the 2023 TYSP,  
22          it was one of the most economic generation additions available.



1 Second, it was located far enough in the future to allow DSM additions a  
2 meaningful chance to potentially avoid or defer it. Finally, selection of a fossil  
3 unit conforms to the legislative policy in Section 366.82(2), Florida Statutes, to  
4 design DSM goals that increase the conservation of expensive resources, such  
5 as petroleum fuels, as well as the legislative policy in Section 366.92, Florida  
6 Statutes, to promote the development of renewable energy and lessen Florida's  
7 dependence on natural gas and fuel oil for the production of electricity.<sup>2</sup>  
8

9 **IV. STEP 3 OF FPL'S PLANNING PROCESS: OVERVIEW OF**  
10 **PRELIMINARY ECONOMIC SCREENING TESTS FOR DSM**  
11

12 **Q. Which preliminary screening tests for DSM were used in this step of FPL's**  
13 **DSM goals development analyses?**

14 A. FPL used four DSM screening tests in these analyses. Three of these screening  
15 tests address cost-effectiveness: the Participant screening test, the RIM  
16 preliminary screening test, and the TRC preliminary screening test. The fourth  
17 screening test addresses an evaluation of free ridership, the years-to-payback  
18 screening test using a two-year criterion. All four tests are designed

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<sup>2</sup> See also *In re: Commission review of numeric conservation goals (Florida Power & Light Company)*, Docket Nos. 130199-EI *et al.*, Order No. PSC-14-0696-FOF-EU, p. 14 (FPSC Dec. 16, 2014) ("Demand-side management is an alternate resource to generation driven by economic and reliability considerations for Florida's electric utilities. The economics of demand-side management are similar to generation, with a focus on fixed capacity and avoidable fossil fuel cost. The reliability considerations of demand-side management are significantly different, however, as measures tend to be implemented in small increments over time, rely upon voluntary participation of customers, and are typically not dispatchable by the utility.")

1 to provide preliminary economic screening information regarding the  
2 individual DSM measures being evaluated. The intent of the Participant test is  
3 to determine if it makes economic sense for an individual customer to  
4 participate in a specific DSM measure. The intent of the RIM test is to measure  
5 the effect of a DSM measure on FPL’s electric rates, which impact both  
6 participants and non-participants. The intent of the TRC test is to measure the  
7 cost of a DSM measure to both the utility and its customers, without  
8 consideration of the impact to rates. The intent of the years-to-payback test is  
9 to address the “free rider” issue so the utility and all of its customers are not  
10 making incentive payments and incurring administrative costs for DSM  
11 measures that customers likely would install even without an incentive  
12 payment.

13 **Q. Is FPL accounting for any projected environmental compliance costs in the**  
14 **screening tests in the current analyses?**

15 A. Yes, but only for two types of emissions. FPL is accounting for projected  
16 compliance costs for sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>) in both the  
17 RIM and TRC preliminary screening tests. However, consistent with the  
18 direction provided in the Order Establishing Procedure for this docket (Order  
19 No. PSC-2024-0022-PCO-EG), FPL is not accounting for projected CO<sub>2</sub>  
20 compliance costs in these screening tests. Rather, because FPL considers CO<sub>2</sub>  
21 compliance costs in all of its other resource planning analyses, FPL analyzed  
22 the impact of projected CO<sub>2</sub> compliance costs in a sensitivity screening  
23 analysis. In order to indicate whether CO<sub>2</sub> costs are included in the screening

1 analyses, I will use the terminology of “w/ CO<sub>2</sub>” and “w/o CO<sub>2</sub>” for the different  
2 analyses.

3 **Q. Have the four preliminary screening tests been used by FPL in prior DSM**  
4 **goals filings?**

5 A. Yes, all four tests have been used in prior filings. However, the goals proposed  
6 in FPL’s prior DSM goals dockets have been based on the RIM and Participant  
7 tests and a years-to-payback screen of two years.

8 **Q. Please discuss the primary differences between the Participant, RIM, and**  
9 **TRC preliminary screening tests.**

10 A. A summary of the costs and benefits considered by each test during the cost-  
11 effectiveness screening is provided in Exhibit AWW-1. As shown in Exhibit  
12 AWW-1, the primary differences between these three tests result from the  
13 perspective that each test attempts to capture. FPL witness Floyd provides a  
14 more detailed description of the different cost-effectiveness tests and what each  
15 one does and does not account for.

16 **Q. What is the objective of the preliminary economic screening of individual**  
17 **DSM measures with the Commission’s DSM cost-effectiveness tests that is**  
18 **carried out in Step 3 of FPL’s resource planning process?**

19 A. The objective of the economic screening of DSM measures with the  
20 Commission’s cost-effectiveness tests (Participant, TRC, and RIM tests) is to  
21 identify all of the measures that are potentially cost-effective (in that their  
22 benefits are higher than their associated costs). These measures that are  
23 potentially cost-effective can be combined first into DSM programs and then

1 into one or more DSM portfolios that meet some or all FPL's projected resource  
2 needs. The resource plans can then be compared on an economic basis to the  
3 Supply Only Plan established earlier.

4 **Q. Please provide an overview of how the preliminary economic screening of**  
5 **individual DSM measures was conducted.**

6 A. The economic screening process begins when the Technical Potential study is  
7 complete. That study describes all the prospective individual DSM measures  
8 and their associated characteristics, such as life of measure, kW reduction, and  
9 kWh savings. These measures are then screened to develop two DSM  
10 portfolios: (1) a RIM portfolio that is comprised of all measures that pass the  
11 RIM and Participant cost-effectiveness tests and the years-to-payback screen;  
12 and (2) a TRC portfolio that passes the TRC test, the Participant test and the  
13 years-to-payback screen. Based on the results of these screens, the passing  
14 measures have their maximum incentives determined.

15 **Q. Why does the screening process differ depending on the tests used for cost-**  
16 **effectiveness?**

17 A. The paths of the cost-effectiveness screening diverge depending on if the RIM  
18 or the TRC test is used as the primary determinant of cost-effectiveness. In  
19 both cases, there are four overall steps in the screening process. The details of  
20 these steps and how they differ from test to test are provided below:

21 Step 1: For the RIM path, the benefits of the measure are compared to the  
22 unrecovered revenue requirements. For the TRC path, the benefits of  
23 the measure are compared to the participants' incremental cost.

1 Step 2: For both the RIM and TRC paths, the benefits of the measure are  
2 compared to the administrative costs being added to the costs already  
3 accounted for in Step 1.

4 Step 3: For the RIM path only, the incentive payments needed for the measure  
5 to pass the Participant test are now accounted for.

6 Step 4: For both the RIM and TRC paths, any measures that do not pass the  
7 years-to-payback test for free riders are screened out.

8 **Q. How does a years-to-payback screening test account for free riders?**

9 A. A years-to-payback screening with a two-year criterion assumes that a customer  
10 would adopt an energy-efficiency measure with no additional incentive if the  
11 economic payback for that measure was less than two years. This screening  
12 test recognizes that “rational” customers will act in their own economic interest  
13 and engage in energy efficiency measures that reduce their energy  
14 consumption, if it is economic to do so even without incentives. This ensures  
15 that incentives (and their associated impact to the electric rates of both  
16 participants and non-participants) will not be provided unnecessarily. FPL  
17 witness Floyd provides further details on the use of the two-year payback  
18 screening to account for free ridership.

19 **Q. What were the results of the preliminary economic screening?**

20 A. The results of the economic screening are provided in Exhibit AWW-2. In  
21 summary, of the 20,068 measure permutations that came out of the Technical  
22 Potential study, 20 passed the RIM and Participant tests and the two years-to-  
23 payback screen path, and 3,433 measures passed the TRC test, the Participant

1 test, and the two years-to-payback screening path. The difference in the number  
2 of measures that pass under the RIM path versus the TRC path is a result of the  
3 different costs that are included in each cost-effectiveness screening test as  
4 explained above and in the testimony of FPL witness Floyd.

5 **Q. Did FPL perform any additional sensitivity case screening analyses of the**  
6 **DSM measures?**

7 A. Yes. Sensitivities were developed for High and Low forecasts of fuel prices,  
8 longer and shorter years-to-payback criteria, and inclusion of compliance costs  
9 for CO<sub>2</sub>. The results of these sensitivities can be seen in Exhibit AWW-3 (and  
10 the results with CO<sub>2</sub> are also presented in Exhibit AWW-2).

11 **Q. How were the various fuel cost sensitivity forecasts and years-to-payback**  
12 **sensitivity periods developed?**

13 A. FPL followed its usual practice in the development of the High and Low fuel  
14 cost forecasts. A Medium fuel cost forecast was first developed. Then FPL  
15 adjusted the Medium fuel cost forecast upwards (for the High fuel cost forecast  
16 sensitivity) and downwards (for the Low fuel cost forecast sensitivity), by  
17 multiplying the annual cost values from the Medium fuel cost forecast by a  
18 factor of (1 plus the historical volatility in the 12-month forward price, one year  
19 ahead) for the High fuel cost forecast sensitivity, and by a factor of (1 minus  
20 the historical volatility of the 12-month forward price, one year ahead) for the  
21 Low fuel cost forecast sensitivity.

22

1 For the development of years-to-payback criterion sensitivity values, FPL  
2 added or subtracted one year to or from its base case two years-to-payback  
3 criterion, resulting in three years-to-payback, and one year-to-payback,  
4 sensitivity case criteria. FPL believes that this variation is sufficient to illustrate  
5 the sensitivity of the screening process to differences in the years-to-payback  
6 criterion.

7 **Q. What fuel cost forecast is FPL basing its proposed DSM goals on and why?**

8 A. FPL is basing its proposed 2025-2034 DSM goals on its Medium fuel forecast  
9 that is presented in Exhibit AWW-4. The Medium fuel forecast represents a  
10 middle ground of fuel scenarios and is consistent with the methodology used in  
11 all of FPL's recent filings before the Commission.

12 **Q. Please discuss the CO<sub>2</sub> compliance cost forecast values in Column (8) of  
13 Exhibit AWW-4.**

14 A. Since 2007, FPL has evaluated potential CO<sub>2</sub> regulation and/or legislation and  
15 has used projected compliance costs for CO<sub>2</sub> emissions from the consultant ICF  
16 in its resource planning work. The values for CO<sub>2</sub> compliance costs in Exhibit  
17 AWW-4 represent the latest forecast FPL received from ICF in October of  
18 2022.

19 **Q. Does FPL use a CO<sub>2</sub> compliance cost forecast in all of its other resource  
20 planning analyses?**

21 A. Yes, FPL has consistently used a forecast of CO<sub>2</sub> compliance in all of its  
22 resource plan analyses for more than fifteen years.

1       **Q.     Earlier you stated that, at the conclusion of the cost-effectiveness screening,**  
2       **maximum incentives were calculated for each passing measure. How were**  
3       **these maximum incentives calculated?**

4       A.     For the RIM path of cost-effectiveness testing, the maximum incentives for  
5       measures that pass all four steps were calculated based on two parameters:

- 6             1. How much incentive can be offered and still allow the measure to pass  
7             the RIM and Participant tests?
- 8             2. How much incentive can be offered and still allow the measure to pass  
9             the years-to-payback test?

10       The smaller of these two incentives is the maximum incentive that could be  
11       offered for measures that pass the RIM path of cost-effectiveness testing. For  
12       example, assume that a measure passes all four screening steps in the RIM path.  
13       The one-time payment that can be offered for this measure that still allows a  
14       RIM test result greater than 1.005 is \$1,000. The one-time payment that can be  
15       offered for this measure while still allowing it to pass the years-to-payback test  
16       is \$500. Based on these two values, the maximum incentive that could be  
17       offered is \$500 – offering a larger incentive would cause the measure to fail the  
18       years-to-payback test.

19  
20       For the TRC path of cost-effectiveness testing, only the years-to-payback  
21       criterion was used to determine the maximum incentive, as the TRC test does  
22       not include the consideration of incentive payments as a cost. For example, a  
23       particular measure could pass the TRC test and have a one-time payment of



1 \$500 that still passes the two-year payback screen. Lowering this one-time  
2 payment below \$500 would have no effect on the outcome of the TRC test.

3 **Q. How were these maximum incentives used in the overall DSM analysis?**

4 A. The two sets (RIM path and TRC path) of passing measures and their associated  
5 maximum incentives developed in Step 3 are used in Step 4 to develop the  
6 programs for each of the goals scenarios required by the rule. This process is  
7 described in detail by FPL witness Floyd. The goals and programs developed  
8 in Step 4 for FPL’s recommended portfolio and for each of the cost-  
9 effectiveness scenarios are used in Step 5 to develop the associated resource  
10 plans, which I describe next, to accurately compare all of the impacts of the  
11 DSM goals in Step 6.

12  
13 **V. STEP 5 OF FPL’S PLANNING PROCESS: DEVELOPMENT OF THE**  
14 **RESOURCE PLANS**

15  
16 **Q. What are FPL’s resource needs during the 2025-2034 DSM goals**  
17 **timeframe?**

18 A. Exhibit AWW-5 details FPL’s resource needs for this timeframe and two  
19 additional years using the resource planning process I previously described.

1       **Q.     What were the reasonably achievable DSM program values and how does**  
2       **this DSM program potential match up with FPL’s projected resource**  
3       **needs?**

4       A.     The results of the evaluation of reasonably achievable DSM, which are  
5       discussed in detail in FPL witness Floyd’s direct testimony, were used as inputs  
6       for the resource planning process. Exhibit AWW-6 presents the projected total  
7       annual Summer MW for DSM programs identified in each of FPL’s goals  
8       scenarios in Columns 1 through 3. These annual DSM Summer MW values are  
9       also compared to the annual resource need projections in Exhibit AWW-5 and  
10      presented in Column 4 of Exhibit AWW-6.

11      **Q.     Please describe the “Supply Only” Resource Plan and the “With DSM”**  
12      **Resource Plans that were developed for further analyses.**

13      A.     A summary of these four plans is presented in Exhibit AWW-7. For the  
14      “Supply Only” plan, DSM additions were assumed to be “frozen” after 2024.  
15      All of the resource needs identified in Exhibit AWW-6 were met with future  
16      supply-side resource options, including battery storage units.

17  
18      A total of three “With DSM” resource plans were developed for further  
19      analysis. The first “With DSM” plan is the RIM Resource Plan. This plan is  
20      based on the measures that passed both the RIM and Participant tests, as well  
21      as passing the two-year payback screening for free riders. The second “With  
22      DSM” plan is the TRC Resource Plan. This plan is based on measures that  
23      passed the TRC test and Participant test for cost-effectiveness and the two-

1 year payback screening for free riders. The final “With DSM” plan is the FPL  
2 Proposed Resource Plan. This plan was developed based on FPL’s  
3 recommended DSM portfolio that largely continues the currently offered DSM  
4 programs with notable enhancements as further described by FPL witness  
5 Floyd. The DSM additions in the FPL Proposed Resource Plan are essentially  
6 an approach that results in DSM goals that have demand and energy impacts in  
7 between those under the RIM Resource Plan and the TRC Resource Plan. The  
8 economic and non-economic impacts of each of these plans are analyzed in Step  
9 6, which I describe next.

10  
11 **VI. STEP 6 OF FPL’S PLANNING PROCESS: ANALYSES OF THE**  
12 **RESOURCE PLANS**

13  
14 **Q. Please describe how the economic analysis of the Supply Only and “With**  
15 **DSM” Resource Plans is conducted.**

16 A. The economic analysis of the resource plans compares the Levelized System  
17 Average Electric Rate for each plan. Exhibits AWW-8 through AWW-11  
18 present the calculations of the Levelized System Average Electric Rate and the  
19 fixed and variable costs that comprise the projected annual revenue  
20 requirements from which the rate is derived for each resource plan evaluated.  
21 The calculation consists of three basic steps. First, the projected annual revenue  
22 requirements and annual GWh served are used to calculate a projected system  
23 average electric rate for each year as shown in Column 9 of

1 Exhibits AWW-8 through AWW-11. Second, each of these projected annual  
2 electric rates is converted to a present value, and these present values are  
3 summed in Column 10. Third, an annual electric rate value is developed in  
4 Column 11 that, when held constant in each year, with these values converted  
5 to a present value and summed, has an identical net present value sum in  
6 Column 12 to that of the present value sum in Column 10. This constant electric  
7 rate value is the Levelized System Average Electric Rate for this resource plan.

8 **Q. What were the results of the economic analysis of the resource plans?**

9 A. The results of the economic analysis of the resource plans are presented in  
10 Exhibit AWW-12, which provides the projected Levelized System Average  
11 Electric Rate for each resource plan. As shown on Exhibit AWW-12, the RIM  
12 Resource Plan provides the lowest Levelized System Average Electric Rate for  
13 FPL's customers, while the TRC Resource Plan provides the highest Levelized  
14 System Average Electric Rate for FPL's customers. The Levelized System  
15 Average Electric Rate for the FPL Proposed Resource Plan is between those of  
16 the RIM and TRC Resource Plans.

17 **Q. Are the differences in the Levelized System Average Electric Rates**  
18 **between the three resource plans presented in Exhibit AWW-12**  
19 **meaningful?**

20 A. Yes. This is demonstrated in Exhibit AWW-13. This exhibit compares the  
21 levelized rates for the RIM Resource Plan, the TRC Resource Plan, and the FPL  
22 Proposed Resource Plan. As shown in the exhibit, the seemingly modest

1 differential in levelized rates between the RIM-based and TRC-based plans  
2 equates to a very large one-time cost of approximately \$2.5 billion in year 2034  
3 being added to the RIM-based DSM plan. Exhibit AWW-14 shows a similar  
4 comparison between the FPL Proposed Plan and the TRC Plan.

5 **Q. Were electric rates and customer bills projected and compared for the ten-**  
6 **year goal-setting period for each resource plan?**

7 A. Yes. Exhibit AWW-15 provides a comparison of electric rates and customer  
8 bills for the “Supply Only Resource Plan and the three “With DSM” Resource  
9 Plans. In comparing the three “With DSM” Resource Plans during 2025-2034,  
10 the RIM Resource Plan is projected to result in the lowest electric rates and  
11 average customer bills in each year. The TRC Resource Plan is projected to  
12 result in the highest electric rates and the highest average customer bills in each  
13 year. The FPL Proposed Resource Plan falls in between the RIM and TRC  
14 Resource Plans.

15 **Q. How would you summarize the economic analyses results?**

16 A. Two results from the economic analyses are noteworthy. First, the RIM  
17 Resource Plan helps meet FPL’s resource needs through 2034 while providing  
18 the lowest Levelized System Average Electric Rates over the analysis period  
19 and the lowest electric rates of the “With DSM” Resource Plans for each year  
20 in the 2025-2034 time period. The FPL Proposed Resource plan also meets all  
21 of FPL’s resource needs through 2034, and while the FPL Proposed Resource  
22 Plan raises customer electric rates relative to the RIM Resource Plan, it results  
23 in minimal incremental rate impact beyond what customers are

1 incurring under FPL's current approved DSM goals. The TRC Resource Plan  
2 meets FPL's resource needs through 2034 and increases customer electric rates  
3 relative to both the RIM Resource Plan and FPL Proposed Resource Plan.

4 **Q. What different perspectives of the FPL system were considered in the non-**  
5 **economic analyses?**

6 A. The non-economic analyses focused on two perspectives that address the years  
7 2025-2034. The first perspective is a direct comparison of projected annual  
8 SO<sub>2</sub>, NO<sub>x</sub>, and CO<sub>2</sub> emissions for the FPL system for each of the resource plans.  
9 The second perspective is a direct comparison of projected annual FPL system  
10 oil and natural gas usage for the resource plans.

11 **Q. Would you please present the results of the non-economic analyses?**

12 A. Yes. The results of the non-economic analyses are presented in Exhibits AWW-  
13 16 and AWW-17. There is very little difference among the four resource plans  
14 for these non-economic factors.

15 **Q. Does FPL's 10% GRM requirement impact FPL's proposed DSM goals?**

16 A. No. The GRM criterion does not impact FPL's proposed DSM goals.

17 **Q. What are the proposed DSM goals under the FPL Proposed Resource**  
18 **Plan?**

19 A. The proposed DSM goals based on the FPL Proposed Resource Plan are 419  
20 MW Summer demand, 326 MW Winter demand, and 931 GWh energy  
21 reduction for the period 2025 through 2034, which are further explained by FPL  
22 witness Floyd.

1       **Q.     From a resource planning perspective, are the DSM goals based on the FPL**  
2       **Proposed Resource Plan reasonable?**

3       A.     Yes. The resource plan associated with FPL’s proposed DSM goals fulfills the  
4       primary drivers of FPL’s resource planning process:

5             - The timing and magnitude of resource needs: via a combination of  
6             DSM and supply resources, the FPL Proposed Resource Plan ensures  
7             that all of FPL’s resources needs are met throughout the time period of  
8             the analysis and all of FPL’s reliability criteria are satisfied.

9             - The FPL Proposed Resource Plan is consistent with the Commission’s  
10            DSM Goals Rule 25-17.0021, which was recently amended to require  
11            utilities to submit DSM goals based on programs developed under both  
12            the RIM and TRC cost-effectiveness tests.

13            - The rate impact to FPL’s customers: the FPL Proposed Resource Plan  
14            has minimal incremental rate impact to customers beyond what they are  
15            currently paying under the existing DSM goals, which have been in  
16            place for the last ten years.

17            FPL witness Floyd further explains why FPL believes the proposed DSM goals  
18            are reasonable and appropriate.

19       **Q.     Does this conclude your direct testimony?**

20       A.     Yes.

**ATTACHMENT 2**

**Florida Power & Light Company  
Docket No. 20240012-EG**

**Corrected Exhibits AWW-6, AWW-7, AWW-10, AWW-11,  
AWW-12, AWW-13, AWW-14, and AWW-15  
Corrected by Errata Filed July 12, 2024**



**Comparison of DSM Reasonably Achievable Summer MW Values  
with FPL's Projected Summer Resource Needs  
(Assuming the Resource Needs are Met Solely by DSM)  
(MW at Generator)**

	(1)	(2)	(3)	(4)
Year	<b>FPL Proposed Plan</b> Cumulative DSM Reasonably Achievable MW (Summer MW)	<b>RIM Plan</b> Cumulative DSM Reasonably Achievable MW (Summer MW)	<b>TRC Plan</b> Cumulative DSM Reasonably Achievable MW (Summer MW)	Projected FPL Resource Needs if Resource Needs are Met Solely by DSM * (Summer MW)
-----	-----	-----	-----	-----
2024	---	---	---	---
2025	42	20	50	---
2026	85	40	101	---
2027	128	60	152	---
2028	169	79	202	---
2029	210	98	253	---
2030	251	117	305	(684)
2031	293	137	358	(474)
2032	334	157	412	(9)
2033	376	177	467	410
2034	419	198	522	1,133

\* The projected Summer resource need values in Column (4) are from Exhibit AWW-5, Column 11.

**Overview of Supply Only and With DSM Resource Plans**

Supply Only Resource Plan			
Year	Generation Additions (MW)	Cumulative DSM Additions (MW)	Total Reserve Margin (%)
2025	1,490 MW Solar	0	23.4%
2026	522 MW Battery Storage	0	25.2%
2027	300 MW Battery Storage	0	25.3%
2028	300 MW Battery Storage	0	24.8%
2029	300 MW Battery Storage	0	23.6%
2030	300 MW Battery Storage	0	23.0%
2031	300 MW Battery Storage	0	22.0%
2032	300 MW Battery Storage	0	20.0%
2033	1,700 MW Battery Storage	0	20.0%
2034	700 MW Battery Storage	0	24.4%
2035	--	0	21.7%
2036	1 x 660 MW Filler	0	21.0%

FPL Proposed DSM Resource Plan			
Year	Generation Additions (MW)	Cumulative DSM Additions (MW)	Total Reserve Margin (%)
2025	1,490 MW Solar	42	23.6%
2026	522 MW Battery Storage	85	25.7%
2027	300 MW Battery Storage	128	26.1%
2028	300 MW Battery Storage	169	25.8%
2029	300 MW Battery Storage	210	24.8%
2030	300 MW Battery Storage	251	24.4%
2031	300 MW Battery Storage	293	23.7%
2032	300 MW Battery Storage	334	21.9%
2033	400 MW Battery Storage	376	20.5%
2034	3,000 MW Battery Storage	419	27.5%
2035	--	419	24.7%
2036	--	419	21.7%

RIM Resource Plan			
Year	Generation Additions (MW)	Cumulative DSM Additions (MW)	Total Reserve Margin (%)
2025	1,490 MW Solar	20	23.5%
2026	522 MW Battery Storage	40	25.5%
2027	300 MW Battery Storage	60	25.8%
2028	300 MW Battery Storage	79	25.4%
2029	300 MW Battery Storage	98	24.3%
2030	300 MW Battery Storage	117	23.8%
2031	300 MW Battery Storage	137	23.0%
2032	300 MW Battery Storage	157	21.2%
2033	500 MW Battery	177	20.0%
2034	1,000 MW Battery Storage	198	25.0%
2035	--	198	22.3%
2036	1 x 660 MW Filler	198	21.5%

TRC Resource Plan			
Year	Generation Additions (MW)	Cumulative DSM Additions (MW)	Total Reserve Margin (%)
2025	1,490 MW Solar	50	23.6%
2026	522 MW Battery Storage	101	25.7%
2027	300 MW Battery Storage	152	26.1%
2028	300 MW Battery Storage	202	25.9%
2029	300 MW Battery Storage	253	25.0%
2030	300 MW Battery Storage	305	24.6%
2031	300 MW Battery Storage	358	23.9%
2032	300 MW Battery Storage	412	22.1%
2033	300 MW Battery Storage	467	20.6%
2034	2,300 MW Battery Storage	522	27.3%
2035	--	522	24.5%
2036	--	522	21.5%

**Levelized System Average Electric Rate Calculation for the FPL Proposed Resource Plan**

Year	(1) Annual Discount Factor 8.14%	(2) Resource Plan Variable Costs (\$000, Nom)	(3) Resource Plan Fixed Costs (\$000, Nom)	(4) Non-Resource Plan Other System Costs *	(5) = (2)+(3)+(4) System Revenue Requirements (\$000, Nom)	(6) Load Forecast NEL (GWh)	(7) DSM Energy Reduction ** (GWh)	(8) = (6) - (7) Load Forecast NEL Adjusted by DSM (GWh)	(9) = ((5)/(8))/10 Annual Electric Rate (cents/kWh, Nom)	(10) = (9) *(1) Annual Electric Rate (cents/kWh, NPV)	(11) Nominal Levelized System Average Rate (cents/kWh)	(12) = (11) * (1) NPV Levelized System Average Rate (cents/kWh)
2024	1.000	2,698,824	172,693	10,999,155	13,870,672	140,469	113	140,356	9.88250	9.88250	14.8516	14.8516
2025	0.925	2,844,460	378,968	11,341,613	14,565,041	141,761	205	141,555	10.28929	9.51445	14.8516	13.7332
2026	0.855	2,955,492	1,015,395	12,296,936	16,267,824	142,991	297	142,694	11.40053	9.74812	14.8516	12.6990
2027	0.791	2,531,108	1,531,236	12,934,262	16,996,606	144,053	390	143,663	11.83086	9.35428	14.8516	11.7427
2028	0.731	2,340,043	2,012,082	13,212,472	17,564,597	145,101	482	144,619	12.14540	8.87981	14.8516	10.8584
2029	0.676	2,068,999	2,481,309	13,591,962	18,142,269	146,551	574	145,977	12.42819	8.40230	14.8516	10.0407
2030	0.625	1,550,197	2,893,964	13,974,533	18,418,694	148,290	667	147,623	12.47684	7.79996	14.8516	9.2845
2031	0.578	1,163,233	3,308,892	14,390,022	18,862,146	149,578	760	148,817	12.67469	7.32695	14.8516	8.5854
2032	0.535	909,703	3,719,379	14,842,757	19,471,839	151,677	854	150,823	12.91037	6.90117	14.8516	7.9388
2033	0.494	799,057	4,098,843	15,344,989	20,242,889	153,686	949	152,737	13.25340	6.55103	14.8516	7.3410
2034	0.457	846,719	4,696,437	15,895,257	21,438,413	155,678	1,044	154,633	13.86402	6.33679	14.8516	6.7882
2035	0.423	1,235,907	4,506,974	16,484,421	22,227,302	157,715	1,044	156,671	14.18723	5.99620	14.8516	6.2770
2036	0.391	1,722,448	4,321,798	17,107,511	23,151,757	159,679	1,044	158,634	14.59441	5.70378	14.8516	5.8043
2037	0.361	2,293,857	4,186,624	17,748,649	24,229,130	161,502	1,044	160,457	15.10004	5.45698	14.8516	5.3672
2038	0.334	2,904,770	4,485,667	18,403,005	25,793,442	163,154	1,044	162,110	15.91107	5.31706	14.8516	4.9630
2039	0.309	3,502,023	4,450,104	19,064,579	27,016,706	164,627	1,044	163,583	16.51561	5.10346	14.8516	4.5893
2040	0.286	4,224,490	4,461,454	19,741,619	28,427,563	165,935	1,044	164,891	17.24025	4.92620	14.8516	4.2437
2041	0.264	4,799,755	4,499,155	20,139,168	29,438,079	164,919	1,044	163,874	17.96380	4.74640	14.8516	3.9241
2042	0.244	5,454,498	4,481,986	20,570,229	30,506,713	166,511	1,044	165,467	18.43677	4.50453	14.8516	3.6286
2043	0.226	6,148,262	4,504,729	21,008,142	31,661,132	168,119	1,044	167,075	18.95025	4.28131	14.8516	3.3553
2044	0.209	6,772,594	4,457,055	21,453,011	32,682,660	169,744	1,044	168,700	19.37329	4.04728	14.8516	3.1026
2045	0.193	7,393,400	4,405,548	21,904,944	33,703,892	171,385	1,044	170,341	19.78617	3.82226	14.8516	2.8690
2046	0.179	7,807,402	4,450,236	22,364,049	34,621,688	173,042	1,044	171,998	20.12909	3.59567	14.8516	2.6529
2047	0.165	8,445,471	4,319,912	22,830,437	35,595,819	174,717	1,044	173,673	20.49593	3.38549	14.8516	2.4532
2048	0.153	9,145,723	4,339,017	23,304,219	36,788,959	176,408	1,044	175,364	20.97863	3.20427	14.8516	2.2684
2049	0.141	9,906,850	4,391,602	23,785,509	38,083,960	178,116	1,044	177,072	21.50757	3.03768	14.8516	2.0976
2050	0.131	10,978,179	4,305,484	24,274,422	39,558,085	179,842	1,044	178,798	22.12444	2.88949	14.8516	1.9396
2051	0.121	11,240,533	4,282,113	24,771,076	40,293,722	181,585	1,044	180,541	22.31829	2.69530	14.8516	1.7936
2052	0.112	11,759,395	4,560,642	25,275,591	41,595,629	183,346	1,044	182,302	22.81687	2.54801	14.8516	1.6585
2053	0.103	12,860,981	4,836,349	25,788,088	43,485,418	185,125	1,044	184,081	23.62302	2.43937	14.8516	1.5336
2054	0.095	13,391,506	4,828,110	26,307,139	44,526,756	186,921	1,044	185,877	23.95491	2.28736	14.8516	1.4181
2055	0.088	13,654,207	4,864,268	26,834,393	45,352,869	188,736	1,044	187,692	24.16343	2.13352	14.8516	1.3113
2056	0.082	14,595,288	5,194,695	27,369,977	47,159,960	190,569	1,044	189,525	24.88319	2.03162	14.8516	1.2126
2057	0.075	14,996,865	5,295,014	27,914,017	48,205,896	192,421	1,044	191,377	25.18896	1.90171	14.8516	1.1213
2058	0.070	15,219,363	5,214,789	28,466,646	48,900,799	194,292	1,044	193,248	25.30474	1.76658	14.8516	1.0368
2059	0.065	15,594,296	5,273,132	29,027,995	49,895,423	196,181	1,044	195,137	25.56943	1.65064	14.8516	0.9587
2060	0.060	15,921,899	5,354,935	29,598,199	50,875,033	198,090	1,044	197,046	25.81891	1.54123	14.8516	0.8865
2061	0.055	16,175,609	5,374,204	30,177,395	51,727,208	200,018	1,044	198,974	25.99703	1.43499	14.8516	0.8198
2062	0.051	16,519,169	5,138,209	30,765,721	52,423,099	201,965	1,044	200,921	26.09141	1.33175	14.8516	0.7580
2063	0.047	17,349,218	5,636,001	31,363,319	54,348,538	203,932	1,044	202,888	26.78745	1.26431	14.8516	0.7010
2064	0.044	17,861,299	5,551,696	31,363,319	54,776,315	205,919	1,044	204,875	26.73643	1.16687	14.8516	0.6482
2065	0.040	18,219,167	5,508,714	31,363,319	55,091,201	207,926	1,044	206,882	26.62924	1.07467	14.8516	0.5994
2066	0.037	18,608,157	5,576,712	31,363,319	55,548,188	209,954	1,044	208,910	26.58954	0.99226	14.8516	0.5542
2067	0.035	18,961,075	5,693,950	31,363,319	56,018,344	212,002	1,044	210,958	26.55426	0.91632	14.8516	0.5125
2068	0.032	19,254,978	5,820,945	31,363,319	56,439,243	214,071	1,044	213,027	26.49395	0.84539	14.8516	0.4739
2069	0.030	19,645,491	6,016,986	31,363,319	57,025,797	216,161	1,044	215,117	26.50924	0.78218	14.8516	0.4382
2070	0.027	20,055,695	5,979,662	31,363,319	57,398,677	218,272	1,044	217,228	26.42328	0.72093	14.8516	0.4052
										192.24043		192.24043

\* Includes system costs not affected by the resource plan such as existing generation, T&D, staff, and DSM costs not tied directly to new DSM signups (such as rebates to existing load management participants, etc.).

\*\* DSM energy reductions are incremental from 2024.

Levelized System Average Electric Rate (cents/kWh) = **14.8516**

**Levelized System Average Electric Rate Calculation for the TRC Resource Plan**

Year	(1) Annual Discount Factor 8.14%	(2) Resource Plan Variable Costs (\$000, Nom)	(3) Resource Plan Fixed Costs (\$000, Nom)	(4) Non-Resource Plan Other System Costs *	(5) = (2)+(3)+(4) System Revenue Requirements (\$000, Nom)	(6) Load Forecast NEL (GWh)	(7) DSM Energy Reduction ** (GWh)	(8) = (6) - (7) Load Forecast NEL Adjusted by DSM (GWh)	(9) = ((5)/(8))/10 Annual Electric Rate (cents/kWh, Nom)	(10) = (9)*(1) Annual Electric Rate (cents/kWh, NPV)	(11) Nominal Levelized System Average Rate (cents/kWh)	(12) = (11) * (1) NPV Levelized System Average Rate (cents/kWh)
2024	1.000	2,698,623	172,693	10,999,155	13,870,471	140,469	113	140,356	9.88236	9.88236	14.8880	14.8880
2025	0.925	2,844,400	386,766	11,341,613	14,572,779	141,761	248	141,513	10.29787	9.52238	14.8880	13.7668
2026	0.855	2,952,245	1,022,625	12,296,936	16,271,806	142,991	386	142,605	11.41042	9.75658	14.8880	12.7301
2027	0.791	2,521,157	1,537,980	12,934,262	16,993,399	144,053	528	143,525	11.84006	9.36155	14.8880	11.7714
2028	0.731	2,333,739	2,018,815	13,212,472	17,565,026	145,101	676	144,425	12.16203	8.89197	14.8880	10.8850
2029	0.676	2,058,457	2,487,622	13,591,962	18,138,040	146,551	829	145,721	12.44707	8.41506	14.8880	10.0653
2030	0.625	1,538,779	2,899,752	13,974,533	18,413,064	148,290	989	147,301	12.50027	7.81461	14.8880	9.3073
2031	0.578	1,148,079	3,313,983	14,390,022	18,852,083	149,578	1,153	148,425	12.70143	7.34241	14.8880	8.6064
2032	0.535	895,360	3,723,571	14,842,757	19,461,688	151,677	1,321	150,356	12.94373	6.91900	14.8880	7.9583
2033	0.494	792,534	4,086,542	15,344,989	20,224,064	153,686	1,493	152,193	13.28845	6.56835	14.8880	7.3590
2034	0.457	865,797	4,579,193	15,895,257	21,340,247	155,678	1,668	154,010	13.85644	6.33332	14.8880	6.8048
2035	0.423	1,249,219	4,390,428	16,484,421	22,124,069	157,715	1,668	156,047	14.17779	5.99221	14.8880	6.2924
2036	0.391	1,737,042	4,215,341	17,107,511	23,059,895	159,679	1,668	158,011	14.59389	5.70357	14.8880	5.8185
2037	0.361	2,298,608	4,201,430	17,748,649	24,248,688	161,502	1,668	159,834	15.17121	5.48270	14.8880	5.3803
2038	0.334	2,912,005	4,501,895	18,403,005	25,816,905	163,154	1,668	161,486	15.98707	5.34246	14.8880	4.9752
2039	0.309	3,512,284	4,475,560	19,064,579	27,052,423	164,627	1,668	162,959	16.60075	5.12977	14.8880	4.6005
2040	0.286	4,239,091	4,488,825	19,741,619	28,469,535	165,935	1,668	164,267	17.33127	4.95220	14.8880	4.2541
2041	0.264	4,813,004	4,526,809	20,139,168	29,478,982	164,919	1,668	163,251	18.05750	4.77116	14.8880	3.9337
2042	0.244	5,462,500	4,532,499	20,570,229	30,565,229	166,511	1,668	164,843	18.54204	4.53025	14.8880	3.6375
2043	0.226	6,158,485	4,414,237	21,008,142	31,580,863	168,119	1,668	166,451	18.97305	4.28646	14.8880	3.3635
2044	0.209	6,779,633	4,491,689	21,453,011	32,724,333	169,744	1,668	168,076	19.46999	4.06748	14.8880	3.1102
2045	0.193	7,405,588	4,464,300	21,904,944	33,774,833	171,385	1,668	169,717	19.90070	3.84438	14.8880	2.8760
2046	0.179	7,814,333	4,356,646	22,364,049	34,535,028	173,042	1,668	171,374	20.15180	3.59973	14.8880	2.6594
2047	0.165	8,444,184	4,374,245	22,830,437	35,648,866	174,717	1,668	173,049	20.60047	3.40276	14.8880	2.4592
2048	0.153	9,148,518	4,406,143	23,304,219	36,858,880	176,408	1,668	174,740	21.09354	3.22182	14.8880	2.2740
2049	0.141	9,872,287	4,472,492	23,785,509	38,130,287	178,116	1,668	176,449	21.60986	3.05212	14.8880	2.1027
2050	0.131	10,940,222	4,362,777	24,274,422	39,577,421	179,842	1,668	178,174	22.21276	2.90102	14.8880	1.9444
2051	0.121	11,203,080	4,357,553	24,771,076	40,331,710	181,585	1,668	179,917	22.41679	2.70720	14.8880	1.7980
2052	0.112	11,724,902	4,629,925	25,275,591	41,630,419	183,346	1,668	181,678	22.91437	2.55889	14.8880	1.6626
2053	0.103	12,812,669	4,901,020	25,788,088	43,501,777	185,125	1,668	183,457	23.71226	2.44859	14.8880	1.5374
2054	0.095	13,345,004	4,912,309	26,307,139	44,564,452	186,921	1,668	185,254	24.05593	2.29701	14.8880	1.4216
2055	0.088	13,598,544	4,758,942	26,834,393	45,191,879	188,736	1,668	187,068	24.15795	2.13304	14.8880	1.3145
2056	0.082	14,542,736	5,298,583	27,369,977	47,211,296	190,569	1,668	188,902	24.99254	2.04055	14.8880	1.2155
2057	0.075	14,937,463	5,181,290	27,914,017	48,032,770	192,421	1,668	190,753	25.18058	1.90108	14.8880	1.1240
2058	0.070	15,170,736	5,294,757	28,466,646	48,932,139	194,292	1,668	192,624	25.40296	1.77344	14.8880	1.0394
2059	0.065	15,538,477	5,399,931	29,027,995	49,966,402	196,181	1,668	194,513	25.68792	1.65829	14.8880	0.9611
2060	0.060	15,840,759	5,456,667	29,598,199	50,895,626	198,090	1,668	196,422	25.91140	1.54675	14.8880	0.8887
2061	0.055	16,125,402	5,457,524	30,177,395	51,760,320	200,018	1,668	198,350	26.09549	1.44043	14.8880	0.8218
2062	0.051	16,479,221	5,242,035	30,765,721	52,486,977	201,965	1,668	200,297	26.20456	1.33752	14.8880	0.7599
2063	0.047	17,284,456	5,487,346	31,363,319	54,135,122	203,932	1,668	202,264	26.76455	1.26323	14.8880	0.7027
2064	0.044	17,791,700	5,645,792	31,363,319	54,800,811	205,919	1,668	204,251	26.83009	1.17096	14.8880	0.6498
2065	0.040	18,147,909	5,610,127	31,363,319	55,121,355	207,926	1,668	206,259	26.72440	1.07852	14.8880	0.6008
2066	0.037	18,528,442	5,693,293	31,363,319	55,585,054	209,954	1,668	208,286	26.68688	0.99590	14.8880	0.5556
2067	0.035	18,880,307	5,787,747	31,363,319	56,031,373	212,002	1,668	210,334	26.63921	0.91925	14.8880	0.5137
2068	0.032	19,188,003	5,968,639	31,363,319	56,519,962	214,071	1,668	212,403	26.60977	0.84909	14.8880	0.4751
2069	0.030	19,580,059	5,777,783	31,363,319	56,721,161	216,161	1,668	214,493	26.44431	0.78027	14.8880	0.4393
2070	0.027	19,998,477	6,097,445	31,363,319	57,459,241	218,272	1,668	216,604	26.52734	0.72377	14.8880	0.4062
										192.71146		192.71146

\* Includes system costs not affected by the resource plan such as existing generation, T&D, staff, and DSM costs not tied directly to new DSM signups (such as rebates to existing load management participants, etc.).

\*\* DSM energy reductions are incremental from 2024.

Levelized System Average Electric Rate (cents/kWh) = **14.8880**

**Comparison of the Resource Plans:  
Economic Analyses Results**

<u>Resource Plan</u> -----	Levelized System Average Electric Rate (cents/kWh) -----
RIM Plan	14.8311
Supply Only Plan	14.8366
Proposed Plan	14.8516
TRC Plan	14.8880

**Additional Cost Needed to be Added to the RIM Plan to Increase its Levelized System Average Electric Rate to That of the TRC Plan**

Year	(1) Annual Discount Factor 8.14%	(2) Resource Plan Variable Costs (\$000, Nom)	(3) Resource Plan Fixed Costs (\$000, Nom)	(4) Non-Resource Plan Other System Costs * (\$000, Nom)	(5) "What If" One-Time Cost (\$000, Nom)	(6) = (2)+(3)+(4)+(5) System Revenue Requirements (\$000, Nom)	(7) Load Forecast NEL (GWh)	(8) DSM Energy Reduction ** (GWh)	(9) = (7) - (8) Load Forecast NEL Adjusted by DSM (GWh)	(10) = ((6)/(9))/10 Annual Electric Rate (cents/kWh, Nom)	(11) = (10) *(1) Annual Electric Rate (cents/kWh, NPV)	(12) Nominal Levelized System Average Rate (cents/kWh)	(13) = (12) * (1) NPV Levelized System Average Rate (cents/kWh)
2024	1.000	2,699,246	172,693	10,999,155	0	13,871,093	140,469	113	140,356	9.88280	9.88280	14.8880	14.8880
2025	0.925	2,847,613	366,493	11,341,613	0	14,555,719	141,761	113	141,647	10.27603	9.50218	14.8880	13.7668
2026	0.855	2,961,980	1,004,777	12,296,936	0	16,263,693	142,991	113	142,878	11.38296	9.73310	14.8880	12.7301
2027	0.791	2,534,978	1,522,352	12,934,262	0	16,991,592	144,053	114	143,939	11.80469	9.33359	14.8880	11.7714
2028	0.731	2,353,351	2,005,256	13,212,472	0	17,571,079	145,101	114	144,987	12.11904	8.86054	14.8880	10.8850
2029	0.676	2,086,767	2,476,150	13,591,962	0	18,154,878	146,551	114	146,437	12.39775	8.38171	14.8880	10.0653
2030	0.625	1,569,627	2,890,450	13,974,533	0	18,434,610	148,290	114	148,176	12.44103	7.77758	14.8880	9.3073
2031	0.578	1,186,025	3,307,007	14,390,022	0	18,883,054	149,578	114	149,464	12.63389	7.30337	14.8880	8.6064
2032	0.535	932,796	3,719,112	14,842,757	0	19,494,666	151,677	114	151,563	12.86240	6.87553	14.8880	7.9583
2033	0.494	812,095	4,123,196	15,344,989	0	20,280,280	153,686	114	153,572	13.20574	6.52747	14.8880	7.3590
2034	0.457	987,075	4,408,393	15,895,257	2,504,860	23,795,585	155,678	115	155,563	15.29643	6.99150	14.8880	6.8048
2035	0.423	1,374,102	4,265,690	16,484,421	0	22,124,213	157,715	115	157,601	14.03814	5.93318	14.8880	6.2924
2036	0.391	1,844,494	4,215,201	17,107,511	0	23,167,207	159,679	115	159,564	14.51906	5.67433	14.8880	5.8185
2037	0.361	2,412,485	4,213,275	17,748,649	0	24,374,409	161,502	115	161,387	15.10308	5.45808	14.8880	5.3803
2038	0.334	3,031,481	4,502,938	18,403,005	0	25,937,424	163,154	115	163,040	15.90866	5.31626	14.8880	4.9752
2039	0.309	3,635,852	4,491,492	19,064,579	0	27,191,924	164,627	115	164,512	16.52879	5.10753	14.8880	4.6005
2040	0.286	4,371,817	4,512,871	19,741,619	0	28,626,306	165,935	115	165,820	17.26346	4.93283	14.8880	4.2541
2041	0.264	4,954,973	4,539,708	20,139,168	0	29,633,849	164,919	115	164,804	17.98127	4.75101	14.8880	3.9337
2042	0.244	5,607,834	4,545,868	20,570,229	0	30,723,931	166,511	115	166,396	18.46432	4.51125	14.8880	3.6375
2043	0.226	6,312,067	4,428,547	21,008,142	0	31,748,756	168,119	115	168,005	18.89755	4.26941	14.8880	3.3635
2044	0.209	6,941,810	4,482,669	21,453,011	0	32,877,491	169,744	115	169,629	19.38198	4.04910	14.8880	3.1102
2045	0.193	7,581,281	4,476,140	21,904,944	0	33,962,365	171,385	115	171,270	19.82970	3.83067	14.8880	2.8760
2046	0.179	7,991,831	4,376,717	22,364,049	0	34,732,597	173,042	115	172,928	20.08502	3.58780	14.8880	2.6594
2047	0.165	8,630,540	4,376,952	22,830,437	0	35,837,929	174,717	115	174,602	20.52547	3.39037	14.8880	2.4592
2048	0.153	9,344,055	4,432,045	23,304,219	0	37,080,319	176,408	115	176,294	21.03328	3.21262	14.8880	2.2740
2049	0.141	10,121,546	4,489,324	23,785,509	0	38,396,378	178,116	115	178,002	21.57076	3.04660	14.8880	2.1027
2050	0.131	11,201,318	4,375,839	24,274,422	0	39,851,579	179,842	115	179,728	22.17331	2.89587	14.8880	1.9444
2051	0.121	11,471,454	4,391,153	24,771,076	0	40,633,683	181,585	115	181,471	22.39130	2.70412	14.8880	1.7980
2052	0.112	11,992,264	4,676,253	25,275,591	0	41,944,108	183,346	115	183,232	22.89130	2.55632	14.8880	1.6626
2053	0.103	13,079,727	4,933,238	25,788,088	0	43,801,052	185,125	115	185,010	23.67493	2.44473	14.8880	1.5374
2054	0.095	13,601,306	4,983,412	26,307,139	0	44,891,857	186,921	115	186,807	24.03115	2.29464	14.8880	1.4216
2055	0.088	13,850,868	4,847,019	26,834,393	0	45,532,280	188,736	115	188,622	24.13946	2.13140	14.8880	1.3145
2056	0.082	14,801,911	5,372,049	27,369,977	0	47,543,937	190,569	115	190,455	24.96335	2.03816	14.8880	1.2155
2057	0.075	15,203,330	5,260,021	27,914,017	0	48,377,369	192,421	115	192,307	25.15636	1.89925	14.8880	1.1240
2058	0.070	15,425,469	5,370,422	28,466,646	0	49,262,536	194,292	115	194,177	25.36989	1.77113	14.8880	1.0394
2059	0.065	15,797,078	5,438,062	29,027,995	0	50,263,134	196,181	115	196,067	25.63574	1.65492	14.8880	0.9611
2060	0.060	16,102,643	5,513,827	29,598,199	0	51,214,668	198,090	115	197,975	25.86924	1.54423	14.8880	0.8887
2061	0.055	16,382,860	5,499,767	30,177,395	0	52,060,022	200,018	115	199,903	26.04263	1.43751	14.8880	0.8218
2062	0.051	16,733,724	5,271,060	30,765,721	0	52,770,505	201,965	115	201,851	26.14336	1.33440	14.8880	0.7599
2063	0.047	17,540,730	5,530,457	31,363,319	0	54,434,507	203,932	115	203,818	26.70745	1.26053	14.8880	0.7027
2064	0.044	18,051,284	5,658,466	31,363,319	0	55,073,069	205,919	115	205,805	26.75986	1.16790	14.8880	0.6498
2065	0.040	18,407,589	5,636,875	31,363,319	0	55,407,783	207,926	115	207,812	26.66246	1.07602	14.8880	0.6008
2066	0.037	18,777,128	5,739,538	31,363,319	0	55,879,985	209,954	115	209,840	26.62987	0.99377	14.8880	0.5556
2067	0.035	19,137,348	5,826,643	31,363,319	0	56,327,311	212,002	115	211,888	26.58358	0.91733	14.8880	0.5137
2068	0.032	19,461,212	6,006,689	31,363,319	0	56,831,221	214,071	115	213,956	26.56205	0.84757	14.8880	0.4751
2069	0.030	19,839,088	5,831,846	31,363,319	0	57,034,254	216,161	115	216,046	26.39909	0.77893	14.8880	0.4393
2070	0.027	20,246,974	6,144,812	31,363,319	0	57,755,106	218,272	115	218,157	26.47406	0.72232	14.8880	0.4062
											192.71146		192.71146

\* Includes system costs not affected by the resource plan such as existing generation, T&D, staff, and DSM costs not tied directly to new DSM signups (such as rebates to existing load management participants, etc.).

\*\* DSM energy reductions are incremental from August 2019.

Levelized System Average Electric Rate (cents/kWh) = **14.8880**

**Additional Cost Needed to be Added to the FPL Proposed Plan to Increase its Levelized System Average Electric Rate to That of the TRC Plan**

Year	(1) Annual Discount Factor 8.14%	(2) Resource Plan Variable Costs (\$000, Nom)	(3) Resource Plan Fixed Costs (\$000, Nom)	(4) Non-Resource Plan Other System Costs * (\$000, Nom)	(5) "What If" One-Time Cost (\$000, Nom)	(6) System Revenue Requirements (\$000, Nom)	(7) Load Forecast NEL (GWh)	(8) DSM Energy Reduction ** (GWh)	(9) Load Forecast NEL Adjusted by DSM (GWh)	(10) Annual Electric Rate (cents/kWh, Nom)	(11) Annual Electric Rate (cents/kWh, NPV)	(12) Nominal Levelized System Average Rate (cents/kWh)	(13) NPV Levelized System Average Rate (cents/kWh)
						= (2)+(3)+(4)+(5)			= (7) - (8)	= ((6)/(9))/10	= (10) *(1)		= (12) * (1)
2024	1.000	2,698,824	172,693	10,999,155	0	13,870,672	140,469	113	140,356	9.88250	9.88250	14.8880	14.8880
2025	0.925	2,844,460	378,968	11,341,613	0	14,565,041	141,761	205	141,555	10.28929	9.51445	14.8880	13.7668
2026	0.855	2,955,492	1,015,395	12,296,936	0	16,267,824	142,991	297	142,694	11.40053	9.74812	14.8880	12.7301
2027	0.791	2,531,108	1,531,236	12,934,262	0	16,996,606	144,053	390	143,663	11.83086	9.35428	14.8880	11.7714
2028	0.731	2,340,043	2,012,082	13,212,472	0	17,564,597	145,101	482	144,619	12.14540	8.87981	14.8880	10.8850
2029	0.676	2,068,999	2,481,309	13,591,962	0	18,142,269	146,551	574	145,977	12.42819	8.40230	14.8880	10.0653
2030	0.625	1,550,197	2,893,964	13,974,533	0	18,418,694	148,290	667	147,623	12.47684	7.79996	14.8880	9.3073
2031	0.578	1,163,233	3,308,892	14,390,022	0	18,862,146	149,578	760	148,817	12.67469	7.32695	14.8880	8.6064
2032	0.535	909,703	3,719,379	14,842,757	0	19,471,839	151,677	854	150,823	12.91037	6.90117	14.8880	7.9583
2033	0.494	799,057	4,098,843	15,344,989	0	20,242,889	153,686	949	152,737	13.25340	6.55103	14.8880	7.3590
2034	0.457	846,719	4,696,437	15,895,257	<b>1,593,560</b>	23,031,973	155,678	1,044	154,633	14.89456	6.80782	14.8880	6.8048
2035	0.423	1,235,907	4,506,974	16,484,421	0	22,227,302	157,715	1,044	156,671	14.18723	5.99620	14.8880	6.2924
2036	0.391	1,722,448	4,321,798	17,107,511	0	23,151,757	159,679	1,044	158,634	14.59441	5.70378	14.8880	5.8185
2037	0.361	2,293,857	4,186,624	17,748,649	0	24,229,130	161,502	1,044	160,457	15.10004	5.45698	14.8880	5.3803
2038	0.334	2,904,770	4,485,667	18,403,005	0	25,793,442	163,154	1,044	162,110	15.91107	5.31706	14.8880	4.9752
2039	0.309	3,502,023	4,504,104	19,064,579	0	27,016,706	164,627	1,044	163,583	16.51561	5.10346	14.8880	4.6005
2040	0.286	4,224,490	4,461,454	19,741,619	0	28,427,563	165,935	1,044	164,891	17.24025	4.92620	14.8880	4.2541
2041	0.264	4,799,755	4,499,155	20,139,168	0	29,438,079	164,919	1,044	163,874	17.96380	4.74640	14.8880	3.9337
2042	0.244	5,454,498	4,481,986	20,570,229	0	30,506,713	166,511	1,044	165,467	18.43677	4.50453	14.8880	3.6375
2043	0.226	6,148,262	4,504,729	21,008,142	0	31,661,132	168,119	1,044	167,075	18.95025	4.28131	14.8880	3.3635
2044	0.209	6,772,594	4,457,055	21,453,011	0	32,682,660	169,744	1,044	168,700	19.37329	4.04728	14.8880	3.1102
2045	0.193	7,393,400	4,405,548	21,904,944	0	33,703,892	171,385	1,044	170,341	19.78617	3.82226	14.8880	2.8760
2046	0.179	7,807,402	4,450,236	22,364,049	0	34,621,688	173,042	1,044	171,998	20.12909	3.59567	14.8880	2.6594
2047	0.165	8,445,471	4,319,912	22,830,437	0	35,595,819	174,717	1,044	173,673	20.49593	3.38549	14.8880	2.4592
2048	0.153	9,145,723	4,339,017	23,304,219	0	36,788,959	176,408	1,044	175,364	20.97863	3.20427	14.8880	2.2740
2049	0.141	9,906,850	4,391,602	23,785,509	0	38,083,960	178,116	1,044	177,072	21.50757	3.03768	14.8880	2.1027
2050	0.131	10,978,179	4,305,484	24,274,422	0	39,558,085	179,842	1,044	178,798	22.12444	2.88949	14.8880	1.9444
2051	0.121	11,240,533	4,282,113	24,771,076	0	40,293,722	181,585	1,044	180,541	22.31829	2.69530	14.8880	1.7980
2052	0.112	11,759,395	4,560,642	25,275,591	0	41,595,629	183,346	1,044	182,302	22.81687	2.54801	14.8880	1.6626
2053	0.103	12,860,981	4,836,349	25,788,088	0	43,485,418	185,125	1,044	184,081	23.62302	2.43937	14.8880	1.5374
2054	0.095	13,391,506	4,828,110	26,307,139	0	44,526,756	186,921	1,044	185,877	23.95491	2.28736	14.8880	1.4216
2055	0.088	13,654,207	4,864,268	26,834,393	0	45,352,869	188,736	1,044	187,692	24.16343	2.13352	14.8880	1.3145
2056	0.082	14,595,288	5,194,695	27,369,977	0	47,159,960	190,569	1,044	189,525	24.88319	2.03162	14.8880	1.2155
2057	0.075	14,996,865	5,295,014	27,914,017	0	48,205,896	192,421	1,044	191,377	25.18896	1.90171	14.8880	1.1240
2058	0.070	15,219,363	5,214,789	28,466,646	0	48,900,799	194,292	1,044	193,248	25.30474	1.76658	14.8880	1.0394
2059	0.065	15,594,296	5,273,132	29,027,995	0	49,895,423	196,181	1,044	195,137	25.56943	1.65064	14.8880	0.9611
2060	0.060	15,921,899	5,354,935	29,598,199	0	50,875,033	198,090	1,044	197,046	25.81891	1.54123	14.8880	0.8887
2061	0.055	16,175,609	5,374,204	30,177,395	0	51,727,208	200,018	1,044	198,974	25.99703	1.43499	14.8880	0.8218
2062	0.051	16,519,169	5,138,209	30,765,721	0	52,423,099	201,965	1,044	200,921	26.09141	1.33175	14.8880	0.7599
2063	0.047	17,349,218	5,636,001	31,363,319	0	54,348,538	203,932	1,044	202,888	26.78745	1.26431	14.8880	0.7027
2064	0.044	17,861,299	5,551,696	31,363,319	0	54,776,315	205,919	1,044	204,875	26.73643	1.16687	14.8880	0.6498
2065	0.040	18,219,167	5,508,714	31,363,319	0	55,091,201	207,926	1,044	206,882	26.62924	1.07467	14.8880	0.6008
2066	0.037	18,608,157	5,576,712	31,363,319	0	55,548,188	209,954	1,044	208,910	26.58954	0.99226	14.8880	0.5556
2067	0.035	18,961,075	5,693,950	31,363,319	0	56,018,344	212,002	1,044	210,958	26.55426	0.91632	14.8880	0.5137
2068	0.032	19,254,978	5,820,945	31,363,319	0	56,439,243	214,071	1,044	213,027	26.49395	0.84539	14.8880	0.4751
2069	0.030	19,645,491	6,016,986	31,363,319	0	57,025,797	216,161	1,044	215,117	26.50924	0.78218	14.8880	0.4393
2070	0.027	20,055,695	5,979,662	31,363,319	0	57,398,677	218,272	1,044	217,228	26.42328	0.72093	14.8880	0.4062
											192.71146		192.71146

\* Includes system costs not affected by the resource plan such as existing generation, T&D, staff, and DSM costs not tied directly to new DSM signups (such as rebates to existing load management participants, etc.).

\*\* DSM energy reductions are incremental from August 2019.

Levelized System Average Electric Rate (cents/kWh) = **14.8880**

**Comparison of the Resource Plans: Projection of System Average  
Electric Rates and Customer Bills (Assuming 1,000 kWh Usage)**

**1) Projection of System Average Electric Rates & Customer Bills:**

Year	Supply Only Resource Plan		FPL Proposed Resource Plan		RIM Resource Plan		TRC Resource Plan	
	Projected Electric Rate (cents/kWh)	Projected Customer Bill (\$/1,000 kWh)	Projected Electric Rate (cents/kWh)	Projected Customer Bill (\$/1,000 kWh)	Projected Electric Rate (cents/kWh)	Projected Customer Bill (\$/1,000 kWh)	Projected Electric Rate (cents/kWh)	Projected Customer Bill (\$/1,000 kWh)
2024	9.883	\$98.83	9.883	\$98.83	9.883	\$98.83	9.882	\$98.82
2025	10.275	\$102.75	10.289	\$102.89	10.276	\$102.76	10.298	\$102.98
2026	11.379	\$113.79	11.401	\$114.01	11.383	\$113.83	11.410	\$114.10
2027	11.802	\$118.02	11.831	\$118.31	11.805	\$118.05	11.840	\$118.40
2028	12.117	\$121.17	12.145	\$121.45	12.119	\$121.19	12.162	\$121.62
2029	12.391	\$123.91	12.428	\$124.28	12.398	\$123.98	12.447	\$124.47
2030	12.434	\$124.34	12.477	\$124.77	12.441	\$124.41	12.500	\$125.00
2031	12.622	\$126.22	12.675	\$126.75	12.634	\$126.34	12.701	\$127.01
2032	12.853	\$128.53	12.910	\$129.10	12.862	\$128.62	12.944	\$129.44
2033	13.254	\$132.54	13.253	\$132.53	13.206	\$132.06	13.288	\$132.88
2034	13.723	\$137.23	13.864	\$138.64	13.686	\$136.86	13.856	\$138.56

**2) Projection of Average Customer Bill Differentials:**

Bill Differentials for Each Plan Compared to the Supply Only Plan				
Year	Supply Only Resource Plan	FPL Proposed Resource Plan	RIM Resource Plan	TRC Resource Plan
2024	\$0.00	(\$0.01)	(\$0.00)	(\$0.01)
2025	\$0.00	\$0.14	\$0.01	\$0.23
2026	\$0.00	\$0.21	\$0.04	\$0.31
2027	\$0.00	\$0.28	\$0.02	\$0.38
2028	\$0.00	\$0.28	\$0.02	\$0.45
2029	\$0.00	\$0.38	\$0.07	\$0.57
2030	\$0.00	\$0.43	\$0.07	\$0.66
2031	\$0.00	\$0.53	\$0.12	\$0.79
2032	\$0.00	\$0.57	\$0.09	\$0.91
2033	\$0.00	(\$0.00)	(\$0.48)	\$0.35
2034	\$0.00	\$1.41	(\$0.37)	\$1.34