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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 John N. Floyd

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 John N. Floyd and certain associated exhibits previously filed on April 2, 2024 [DN 01562-2024]:

- Errata of John N. Floyd
- Attachment 1 – Complete clean version of Corrected Direct Testimony of John N. Floyd
- Attachment 2 – Complete clean versions of Corrected Exhibits JNF-4 and JNF-5

The above-referenced documents correct the direct testimony and exhibits of FPL witness John N. Floyd to reflect an error in the calculation of the per installation savings for FPL's proposed Low Income program, which was discussed on page 8, lines 3-12 of Mr. Floyd's rebuttal testimony filed in this docket on July 1, 2024. This correction results in an average savings increase of 1.0 Summer MW, 1.0 Winter MW, and 4.6 GWh per year for this proposed program, and a revised total savings of 69 Summer MW, 20 Winter MW, and 153 GWh over the ten years of the goals period. The above -referenced documents also reflect corrected cost estimates for the Residential OnCall program and a corrected cost-effectiveness table for the Business On Call program due to formula errors. There are no other changes or corrections to FPL witness Floyd'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.)

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:

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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 JOHN N. FLOYD

Florida Power & Light Company ("FPL") hereby submits this errata sheet to correct certain portions of the Direct Testimony of John N. Floyd and certain associated exhibits filed in the above referenced docket on April 2, 2024.

DIRECT TESTIMONY	CHANGE
Page 6, line 17	• Replace 408 with 419 • Replace 316 with 326 • Replace 885 with 931
Page 25, line 18	• Replace 511 with 522 • Replace 507 with 518 • Replace 1,509 with 1,555
Page 28, line 7	• Replace 408 with 419 • Replace 316 with 326 • Replace 885 with 931

EXHIBIT	CHANGE
Exhibit JNF-4	• Corrected Summer MW, Winter MW and Annual GWh values, page 1 • Corrected Summer MW, Winter MW and Annual GWh savings for Low Income Weatherization program, pages 9 and 25 of 34 • Corrected cost estimates for Residential OnCall, pages 2 and 12 • Corrected cost-effectiveness table for Proposed Business OnCall, page 34
Exhibit JNF-5	• Corrected Proposed program name from "Residential Air Conditioning" to "Residential HVAC", page 1

Provided as "**Attachment 1**" is a complete clean version of the Direct Testimony of John N. Floyd that reflects the above referenced corrections. Provided as "**Attachment 2**" are complete clean version of Corrected Exhibits JNF-4 and JNF-5 that reflect the above-referenced corrections.

Respectfully submitted this 12th day of July 2024,

By: s/*William p. Cox*
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ATTACHMENT 1

Florida Power & Light Company
Docket No. 20240012-EG

Corrected Direct Testimony of John N. Floyd
Corrected by Errata Filed July 12, 2024

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

FLORIDA POWER & LIGHT COMPANY

CORRECTED DIRECT TESTIMONY OF JOHN N. FLOYD

DOCKET NO. 20240012-EG

APRIL 2, 2024

TABLE OF CONTENTS

I. INTRODUCTION

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

A. My name is John N. Floyd. My business address is One Energy Place, Pensacola, Florida 32520. I am employed by Florida Power & Light Company (FPL or the Company) as Director, Demand-Side Management Strategy.

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

A. I am responsible for development of strategy, program implementation, regulatory filings, reporting, and cost management for FPL's Demand-Side Management (DSM)-related activities.

Q. Please describe your educational background and professional experience.

A. I have a Bachelor of Electrical Engineering from Auburn University. After completing a commission in the United States Air Force, I began my career in the electric utility industry at Gulf Power Company, a former Southern Company operating subsidiary. During my 29-year tenure, I held various positions with the company in Power Generation, Metering, Power Delivery, and Customer Service. In 2019, I joined FPL as the DSM Regulatory Support Manager and was promoted to my current position as Director of DSM Strategy in 2023.

Q. Have you previously testified before the Florida Public Service Commission (FPSC or Commission)?

A. Yes. I have testified in multiple DSM goals proceedings and other DSM-related dockets on behalf of Gulf Power and FPL.

Q. Are you sponsoring any exhibits in this case?

A. Yes. I am sponsoring Exhibits JNF-1 through JNF-5, which are attached to my testimony:

- JNF-1 – Historical DSM Participation and Achievements
- JNF-2 – Current DSM Programs and Associated Measures
- JNF-3 – List of Measures Evaluated for Technical Potential
- JNF-4 – 2025-2034 Goals Scenarios and Potential Programs
- JNF-5 – Comparison of Current Programs to Proposed Programs

Q. Please summarize your testimony.

A. The Florida Energy Efficiency and Conservation Act (FEECA) and Commission rules require that utilities develop and offer DSM programs to cost-effectively reduce weather-sensitive peak-demand and the overall growth rate of electricity consumption in the state. FPL has successfully implemented this policy by providing impactful DSM programs that keep rates low and meet customer needs.

FPL followed the process prescribed by the FEECA statute and Commission rules in developing the goals scenarios described throughout my testimony. In general, the process included development of a Technical Potential (TP) Study,

measure-screening utilizing Commission-prescribed cost-effectiveness tests, and goal development based on the reasonably achievable demand and energy savings of potential DSM programs. Witness Jim Herndon with Resource Innovations discusses the TP study, FPL witness Andrew Whitley discusses measure screening and FPL's resource planning process, and I address the goal and program development process.

FPL is committed to continuing to provide DSM programs that keep rates low and meet customers' needs. For more than four decades, FPL has accomplished this through utilization of the Rate Impact Measure (RIM) test. Goals based on RIM ensure all customers benefit – both those who voluntarily participate in DSM programs and those who cannot or elect not to participate. Based on FPL's avoided cost profile and the available energy-efficiency measures to consider for programs, however, a RIM-only DSM proposal would result in a zero goal for efficiency savings.

While FPL supports the use of the RIM test as the primary cost-effectiveness standard to set DSM goals, the Company also recognizes that appropriately tailored DSM programs and goals are consistent with the objective of FEECA to reduce the growth rate of electricity consumption. FPL explored various options to maintain cost-effective DSM initiatives that ensure affordable rates, while also providing valuable programs to help customers reduce their energy usage.

After careful analysis, FPL recommends goals for the period 2025-2034 that reflect continuation of its current portfolio of energy-efficiency and load-management programs, expansion of the existing low-income weatherization program, and introduction of a new low-income Renter Pilot. FPL's proposal also includes expansion of our industry-leading On Call® load-management program with a new HVAC on-bill option. This new option expands the On Call® load-management program to allow greater customer access to new energy-saving HVAC equipment in a way that also passes the RIM cost-effectiveness test. Under this program, a customer will receive a new efficient HVAC unit that FPL will have the ability to control in peak demand situations.

Collectively, FPL's proposed DSM programs focus on the highest priorities of weather-sensitive peak demand, continue to provide customer incentives for making energy-efficient investments, and can be delivered with little to no incremental bill impact to customers. In total, FPL proposes goals with a ten-year impact of 419 Summer MW, 326 Winter MW, and 931 GWh energy reduction to be achieved through 10 energy-efficiency and load-management programs as further described later in my testimony. FPL's proposal will establish DSM goals at a reasonable and appropriate level given current projections of FPL system costs while continuing to maintain low electric rates for all FPL customers.

II. FPL'S HISTORICAL DSM ACHIEVEMENTS

Q. Please provide an overview of FPL's history and results in implementing DSM.

A. FPL began offering DSM programs in the late 1970s prior to the Florida Legislature's adoption of FEECA in 1980. Since then, FPL has maintained a continuous commitment to cost-effective DSM as a complement to evolving Florida Building Code and federal appliance efficiency standards (collectively, Codes and Standards). As described in greater detail by FPL witness Whitley, FPL has made DSM an integral part of its resource planning process and has consistently evaluated DSM in accordance with the Commission's long-standing goal-setting policies. Through this process, FPL has developed a wide array of cost-effective load-management and energy-efficiency programs for both residential and business customers, which have achieved significant reductions in energy consumption and peak demand. As shown on Exhibit JNF-1, there have been approximately 10.5 million participants in these programs (some customers have participated in multiple programs) since inception.

Through 2023, FPL's highly effective DSM efforts have resulted in a cumulative summer peak demand reduction of 5,579 MW. After accounting for the 20% total reserve margin requirement, this equates to eliminating the need to construct the equivalent of approximately 66 new 100-MW generating units. Cumulative energy consumption savings are 100,422 GWh at the

generator, equal to approximately 73% of the consumption of all FPL customers for one year. At the same time, the discipline of working within the traditional Commission goal-setting policies and requirements has helped ensure FPL's electric rates remain low. As of the time of this filing, FPL's typical residential bill is approximately 32% lower than the national average.

Q. Please describe FPL's currently offered DSM programs and their achievements.

A. FPL's current programs are focused on helping customers save with financial incentives to install energy-efficient appliances and building-envelope improvements (energy efficiency), as well as bill credits for allowing FPL to control large appliances or facility loads during peak conditions (load management). FPL's current programs and included measures are shown on Exhibit JNF-2.

Load Management – FPL operates one of the largest load-management programs in the nation. As of year-end 2023, FPL's Residential On Call® program, established in 1986, was the largest residential program in the United States with about 653,000 participants. Along with FPL's more than 17,000 business load-management participants, FPL currently has more than 1,700 MW of Summer load-management demand reduction available for use by FPL system operators.

Energy Efficiency – FPL has also offered large energy-efficiency programs for

decades. More than two million customers have participated in FPL's residential HVAC energy-efficiency program, making their homes' largest sources of energy consumption more efficient than required by the Codes and Standards that were applicable at the time of installation. Likewise, more than 24,000 business customers have participated in FPL's HVAC program, installing efficient direct expansion and chiller units as well as Thermal Energy Storage systems. In addition, more than 21,400 business customers have participated in FPL's Business Lighting program, which encourages customers to replace existing lights with light-emitting diodes (LED). Since 2019, FPL has served 33,947 low-income customers with direct installation of weatherization and energy savings measures.

Customer Education (Surveys) – Since 1981, FPL has emphasized energy-efficiency education for customers regardless of whether they own or rent their home or business. FPL uses residential Home Energy Surveys (HES) and Business Energy Evaluations (BEE) as foundational components of the DSM portfolio. The surveys and evaluations are used for customer education on conservation measures that make economic sense for customers, whether offered as a part of FPL's DSM programs or not. FPL has performed close to 4.5 million HESs and almost 275,000 BEEs via online, phone, and on-site delivery channels. Since 2019, more than 300 residential customers per day had a HES, and 20 business customers per workday had FPL conduct a BEE. In addition to the utility-provided educational resources, customers also have

access to many other public sources of information (including the U.S. Department of Energy's ENERGY STAR® program and website, in addition to contractors, appliance retailers, and manufacturers) to help them decide on what actions they wish to implement to use energy more efficiently.

Q. How is FPL continuing to explore innovative approaches to DSM?

A. FPL has a long history of evaluating new technologies to meet customer needs and provide cost-effective demand-side solutions. For example, in Docket No. 20210015-EI, the Commission approved a limited pilot for FPL to evaluate smart electrical panels as a next-generation DSM solution that could benefit customers through increased visibility and control of their energy usage and provide FPL capabilities to manage certain large appliance loads during peak times. To date, 100 smart panels have been installed in customer homes. FPL has gained valuable insights on customer interest in the technology, installation and commissioning of the panels, appliance usage profiles, and load-management functionality. Although these smart panels deliver on providing visibility and control of major circuits, their high cost remains a barrier to large-scale use for utility DSM in the near-term. As part of its culture of continuous improvement, FPL will continue to evaluate new and alternative technologies that can be cost-effectively deployed for control of behind-the-meter appliances.

III. FACTORS IMPACTING DSM GOALS

Q. What are the main factors that impact potential DSM goals and how?

A. There are two main factors that impact the level of goals for DSM. The first factor in determining the appropriate level of DSM goals is the potential demand and energy savings in the marketplace. To determine the potential savings for utility DSM programs, all commercially available options for reducing demand and energy are evaluated. As outlined in Commission Rule 25-17.0021, Florida Administrative Code (F.A.C.), these options are in the form of demand-side conservation and efficiency "measures," including demand-side renewable energy systems that can be implemented by customers. The determination of the potential savings begins with a Technical Potential Study, which quantifies the theoretical maximum savings opportunity for these measures. As discussed in more detail in later sections of my testimony, the study for the 2024 DSM goals process included 436 energy-efficiency, demand-response and demand-side renewable energy measures – significantly more than were evaluated in 2019. An important aspect of this evaluation is that it only includes potential savings above current and known future Codes and Standards. Codes and Standards establish the baseline from which utility DSM opportunities exist. While customers benefit from increasing Codes and Standards absent any utility DSM, the result of increasing Codes and Standards is a reduction in the incremental benefits of DSM to the utility system and to customers.

The second factor is cost-effectiveness. Cost-effectiveness, in general terms, is a comparison of the benefits and costs of DSM options. The Commission has recognized three industry standard tests as described in Rule 25-17.008(3), "Florida Public Service Commission Cost Effectiveness Manual for Demand Side Management Programs and Self-Service Wheeling Proposals" (7-7-91) for the purposes of evaluating cost-effectiveness since the earliest goal-setting docket in 1993. These tests are the RIM test, the Total Resource Cost (TRC) test, and the Participant test.

Q. Please explain the cost-effectiveness tests and how they impact potential DSM goals.

A. The RIM, TRC and Participant tests measure cost-effectiveness from different perspectives and thus consider different costs and benefits. First, I will discuss the RIM and TRC tests as they measure cost-effectiveness from the utility system perspective.

The RIM test measures the impact on rates resulting from a DSM program and represents the perspective of non-participants. The TRC test measures the impact on total costs to the utility and customer base. The RIM and TRC tests both consider the same benefits of DSM, that is the utility system savings, or avoided cost, of reducing peak demand and energy requirements to be met. These benefits are in the form of avoided generation, transmission, and distribution capital and O&M costs as well as net fuel impacts.

The difference in the RIM and TRC tests is which costs are included. The RIM test includes consideration of the cost of incentives paid to participating customers, the revenue impact resulting from the DSM program, and the cost of implementing the program itself (administrative cost). Consideration of these costs is consistent with Section 366.82(3), Florida Statutes, which is part of the FEECA Statute.

As mentioned earlier, the TRC test considers the same benefits as RIM, but different costs. Specifically, the TRC test only considers the incremental cost of the measure (equipment) and the administrative cost of implementing the program. Notably, the TRC test does not address one of the required costs identified in Section 366.82(3)(b), Florida Statutes, the cost of utility incentives. The TRC test also does not measure impact on electricity rates for customers, both participants and non-participants.

The Commission has long recognized the benefit of utilizing the RIM test as it serves the interest of both customers who participate in utility DSM programs as well as customers who cannot, or elect not to, participate in these programs. In short, the RIM test ensures that even non-participants benefit from utility DSM through downward pressure on electric rates. So, by utilizing the RIM test to establish DSM goals, the Commission can be assured that all customers will benefit through electric rates that are lower than they would otherwise be

without implementation of the program. The cost of RIM-passing programs is justified on this basis. Utilizing the TRC test to measure the cost-effectiveness of DSM, however, can expose all utility customers, whether they participate in a DSM program or not, to higher electric rates resulting from unrecovered revenue requirements. For these reasons, use of the TRC test without appropriate guardrails and limits on cost would be inconsistent with the Commission's statutory obligations to avoid undue rate impact.

Given that RIM-passing programs result in the lowest rate impact, benefit all customers, and avoid cross-subsidization of participants by non-participants, FPL supports utilizing the RIM test as a primary means of evaluating cost-effectiveness and establishing goals.

The third cost-effectiveness test used by the Commission to evaluate DSM goals is the Participant test. This test measures cost-effectiveness from the perspective of the customer participating in the DSM program or measure. It is a simple test that evaluates the economic payback to a potential participant in a DSM program. The benefits considered in the Participant test are the bill savings and incentives received associated with a particular measure, while the costs are the incremental equipment costs borne by the customer. The incentives include both upfront contributions by the utility and tax credits. For example, by considering both the costs of adopting a higher-efficiency HVAC system and the resulting bill savings, the Participant test measures whether the

investment pays for itself over time. From a practical and logical standpoint, this is the primary evaluation a customer considers for making an energy-efficiency investment, and therefore, a utility DSM program should pass this test. This concept of economic payback is also useful in limiting incentive costs so as not to unnecessarily incent a customer to make an investment that otherwise already has a very strong value proposition.

Q. Please elaborate on the impacts Codes and Standards have on potential for cost-effective DSM.

A. Increased Codes and Standards impact all residents and businesses by mandating higher energy-efficiency minimums for prospective end-use equipment installations and/or building design improvements. The impact of Codes and Standards for FPL is two-fold: a reduction in the forecast of energy and peak demand; and a reduction in the incremental savings potential for utility DSM. FPL witness Whitley discusses the impact of Codes and Standards on FPL's load forecast for energy and peak demand.

In addition to the impact on FPL's load forecast, Codes and Standards also reduce the savings potential for utility DSM. First, any utility-offered measures that are no longer above Codes and Standards are rendered obsolete. The previously achieved utility participation and energy and demand savings are now attained by the Codes and Standards instead, thereby replacing efficiency savings that had been obtained from DSM programs.

Second, the "baseline" efficiency level also increases, reducing the incremental savings that remaining DSM measures could achieve. For example, in 2023, the U.S. Department of Energy (DOE) increased the minimum efficiency standard for residential air conditioning from 14 Seasonal Energy Efficiency Rating (SEER) to 15 SEER.[1] This increase in minimum required efficiency resulted in a loss of 0.145 Summer kW and 350 annual kWh incremental savings for all higher SEER units. For a customer installing a new HVAC system beginning in January 2023, that customer automatically realizes this amount of efficiency savings compared to the previous minimum standard. For a utility DSM program, however, the result of this change reduces savings from incrementally higher efficiency units, which impacts opportunity for DSM program savings and cost-effectiveness.

Q. How do utility programs and initiatives complement these Codes and Standards to reduce overall energy use?

A. Utilities play two key roles in improving the overall efficiency of energy utilization by customers. The first role is through education. FPL provides information to customers about ways to save energy through our energy survey programs, on FPL.com, through FPL's Customer Care Centers, through community events and presentations, and through various other media channels. To date, FPL has performed close to 4.5 million residential energy surveys, providing education and information about specific ways customers

[1] The DOE also introduced a new SEER2 unit of measure to reflect changes in the test procedure to measure HVAC system efficiency. For simplicity, FPL will continue to reference SEER ratings unless otherwise indicated.

can reduce energy consumption. Second, utilities offer cost-effective programs that are designed to encourage adoption of technology that is above these minimum Codes and Standards as part of approved DSM programs. These programs help customers save energy and help the utility system operate more efficiently for the benefit of all customers.

IV. DSM GOALS AND PROGRAMS PROCESS

Q. Please provide an overview of the process and main analyses performed to develop FPL's proposed DSM goals and potential programs for the period 2025-2034?

A. The process for developing DSM goals and programs is outlined in the FEECA Statute, Section 366.82(3) and (7), F.S., and Commission Rule 25-17.0021, F.A.C. Specifically, DSM goals development involves three primary interrelated analyses as part of FPL's resource planning process:

(1) Technical Potential (TP) – determines the breadth of measures to be considered and their maximum hypothetical demand and energy savings;

(2) Measure Screening – economic screening of the DSM measures based on Commission-approved cost effectiveness tests and an assessment of free-ridership; and

(3) Program Development and Goals Scenarios – projection of the ten-year (2025-2034) program potential and development of the RIM and TRC goals scenarios.

FPL and the other five utilities subject to FEECA (FEECA Utilities) worked jointly on certain aspects of the analyses and engaged a nationally recognized DSM consultant, Resource Innovations, which has performed many of these types of studies, to assist with portions of the work. Resource Innovations conducted the TP analysis for FPL and the other FEECA Utilities. Resource Innovations also assisted FPL with adoption modeling as part of developing the goals scenarios.

Q. Please briefly describe the Technical Potential (TP) Analysis.

A. Rule 25-17.0021(2) requires utilities to "… assess the full technical potential of all available demand-side conservation and efficiency measures, including demand-side renewable energy systems…." The purpose of the TP Analysis is to identify the theoretical maximum limit for reducing Summer and Winter electric peak demand and energy. The TP assumes every identified potential end-use measure (or measures) is installed everywhere it is "technically" feasible to do so from an engineering standpoint. The TP does not consider cost, customer acceptance, or any other real-world constraints (such as product availability, contractor/vendor capacity, cost-effectiveness, or customer preferences). Therefore, the TP is purely hypothetical and in no way reflects the MW and MWh savings that could potentially be achieved through real-world voluntary utility DSM programs.

Resource Innovations performed the TP analysis for each of the FEECA Utilities. This included coordinating development of the DSM measure list and collecting all data necessary to perform the analysis. The analysis required extensive iterative analytical work and continuous collaboration among the FEECA Utilities to ensure that it was comprehensive. Witness Herndon's testimony provides the analysis details and results. During the development of the measure list for the TP analysis, the FEECA Utilities requested input from various stakeholders in previous DSM dockets. Multiple stakeholders provided recommendations on additional measures that should be included for this study. The FEECA Utilities reviewed each recommendation and incorporated all qualifying recommendations received from these stakeholders. In total, there were 436 unique energy-efficiency, demand-response, and demand-side renewable measures evaluated for Technical Potential. When considering the unique measure impacts across multiple customer segments, building types and rates, these 436 measures represent over 20,000 calculations for each step of the Technical Potential and measure screening process. A full list of measures evaluated in the Technical Potential Study is provided in Exhibit JNF-3, pages 1-14.

Q. Please briefly describe the measure-screening process.

A. The measure-screening process is a multi-step economic analysis that includes calculation of cost-effectiveness and payback for each of the DSM measures identified in the Technical Potential Study. This process narrows the list of measures to be considered for potential programs. As prescribed by Rule 25-

17.0021 and described in the testimony of FPL witness Whitley, FPL used the RIM test for the RIM goals scenario and the TRC test for the TRC goals scenario, as well as the Participant test for both scenarios, to screen these measures for cost-effectiveness. The initial measure screening only considered the measure peak demand and energy savings and measure cost to ensure the maximum number of measures were screened for further consideration. Measure screening also included eliminating measures with a payback period less than two years as a means of addressing free ridership in the goals development process. Subsequent cost-effectiveness analysis added assumptions for administrative cost to further refine the potential measures to be considered for programs. The analytical tools utilized to conduct measure screening were also used to calculate sensitivities of the results based on differing payback periods, higher and lower fuel cost projections, and inclusion of potential CO_2 costs as DSM benefits.

Q. Please briefly describe the program development and goals scenario analysis.

A. Developing the proposed goals involved a multi-step, iterative process that began with compiling all the measures that survived the measure-screening process for each of the cost-effectiveness scenarios (RIM and TRC). These measures represent components of potential programs that can be offered to customers. Experienced FPL DSM program managers crafted potential programs using the passing measures, based on common measure types and program delivery channels. Then, adoption projections were developed

utilizing measure-level adoption modeling and historical FPL program participation to produce program-level participation projections. Finally, the programs were re-evaluated for cost-effectiveness using the program-level participation projections and more specific administrative and incentive cost assumptions. The programs for each of the goals scenarios are described in Section V of my testimony.

Q. Please explain the process FPL used to develop its goals scenarios.

A. The process used to develop the two goals scenarios is the same basic approach used by FPL and relied upon by the Commission in the 2019 DSM goals docket. For each measure that passed the cost-effectiveness and payback screening under either RIM/Participant test or TRC/Participant test, FPL used a combination of quantitative information, qualitative information, and FPL's market experience to develop projections for each of the goals scenarios.

Voluntary DSM programs attract participants through marketing, education, training, and by providing financial incentives. A customer's decision whether to participate in a DSM program is the result of many interrelated factors. These factors are reflected in FPL's program adoption projection. FPL calculated the estimated ten-year adoption of each potential program in the goals scenarios by relying on a number of elements that reflect FPL's and Resource Innovations' customer and market experience:

- **Historical FPL Adoption Rates** – provided "baseline" market experience reflecting both the empirical and the non-quantifiable factors (such as customer awareness);
- **Projected Changes in Market Conditions** – used to adjust historic adoption for changes, such as saturation of a program or changes to incentives;
- **Payback Acceptance Curves** – provided the percent of expected market adoption based on years-to-payback. Multiple curves are used to account for differences in adoption of new technologies/programs, existing programs, and level of maturity of programs.

FPL's proposed goals build on historic achievements of existing programs, with adjustments for market changes and program modifications. For programs with measures that are not a part of FPL's current portfolio, FPL relied on Resource Innovations' measure adoption models to forecast ramp rate and overall projections for the ten-year period. For new programs, FPL considered start-up processes, including system modifications and third-party agreements, as applicable, in estimating the ramp up of projected adoption.

For residential program participation projections, each customer residence represents one participant. For business programs, the qualification of a "participant" was standardized to one Summer kW, since projects widely vary

across the multiple business types. The projected adoption values were then translated into their respective kW and kWh amounts and summed to create the residential and business sector goals for each of the goals scenarios.

Q. How did FPL address free ridership in developing the proposed goals?

A. FPL and all FEECA utilities utilized the two-year payback screening criterion to minimize the impact of "free riders." The term "free riders" refers to the fact that many cost-effective conservation measures will be undertaken on a customer's own volition, without the need for a promotion or incentive provided by the customer's utility company and paid for by the general body of customers of the utility. It simply recognizes that "rational" customers will act in their own economic self-interest and take measures to reduce energy consumption if it is sufficiently attractive economically for them to do so without a utility incentive payment. It is an example of a free-market economy working as it should – rational economic decisions being made in one's best interest without government intervention through mandates or provision of incentives.

A good example would be a customer deciding to install a programmable thermostat. Customers make the economic decision to invest in such measures because it quickly benefits them economically. However, if such a customer also receives a utility incentive, then they become a free rider. If costs are incurred to incentivize such free riders, rates for the general body of customers will be higher than necessary to achieve the same level of conservation.

It should be emphasized that the ultimate goal is to achieve the maximum amount of cost-effective conservation by the most efficient means. The objective is not to set DSM goals at any cost or higher than they should be simply for the sake of having higher goals. Indeed, doing so would be inconsistent with the requirement of Rules 25-17.008 and 25-17.021 that the DSM goals are to be cost-effective. As such, a proper recognition of free riders is necessary to achieve the appropriate goals.

The Commission has used a two-year payback criterion for decades as the threshold below which a customer would be a free rider and, therefore, should not be considered eligible for an additional utility-provided incentive. This policy has been litigated in multiple previous DSM goals proceedings wherein the Commission has determined it was an appropriate metric for determining free riders. In fact, the Commission reaffirmed their position in the 2014 DSM goals docket, Order No. PSC-14-0696-FOF-EU, stating, "[w]e approved goals based on a two-year payback criterion to identify free riders since 1994 and we find it appropriate to continue this policy."

FPL submits that the two-year payback screening criterion remains an effective common-sense approach that is both reasonable and administratively efficient for meeting the requirement in Rule 25-17.0021 that goals reflect consideration

of free riders. It avoids unnecessary incentives (and their associated impacts on the rates of non-participants).

Q. Did FPL conduct any sensitivities on the free ridership period?

A. Yes. FPL analyzed the impact of applying one- and three-year payback period screens as part of the measure-screening process. A summary of measures removed and added, at the building-type level, for each of the evaluation sensitivities is shown in FPL witness Whitley's Exhibit AWW-3.

V. FPL PROPOSED GOALS AND PROGRAMS

Q. Did FPL develop proposed goals for each of the two goals scenarios described in the DSM Goals Rule?

A. Yes. FPL developed goals for each of the two goals scenarios following the same process described earlier. For the RIM and Participant test scenario, RIM-passing programs are projected to achieve 198 Summer MW, 173 Winter MW, and 1 GWh annual energy reduction over the period 2025-2034. For the TRC and Participant test scenario, all potential TRC-passing programs are projected to achieve 522 Summer MW, 518 Winter MW, and 1,555 GWh annual energy reduction over the period 2025-2034. The annual goals for each scenario are shown in Exhibit JNF-4, page 1.

Q. What are the programs for the RIM and TRC goals scenarios?

A. For the RIM and Participant test scenario, the programs are:

Residential Sector:

1. Residential Load Management (On Call®) with new HVAC on-bill option

Commercial/Industrial Sector:

1. Business On Call®
2. Commercial/Industrial Demand Reduction (CDR)
3. Business Custom Incentive

For the TRC and Participant test scenario, the programs are:

Residential Sector:

1. Residential HVAC Plus
2. Residential Building Envelope
3. Residential Low Income
4. Whole Home Plus
5. Retail Products
6. Residential Load Management (On Call®) with new HVAC on-bill option

Commercial/Industrial Sector:

1. Business HVAC Plus
2. Business Lighting Plus
3. Business Water Heating
4. Business Refrigeration
5. Business Motors and Drives

6. Business Cooking
7. Commercial/Industrial Demand Reduction (CDR)
8. Business On Call®
9. Business Custom Incentive

The goals scenarios also include FPL's foundational Residential and Business Survey programs and the Conservation Research and Development (CRD) program. These programs will be included in all scenarios. The full list of potential programs, savings, annual participation projections and annual costs are included in Exhibit JNF-4, pages 2-34.

Q. What are the projected costs and rate impacts of these scenarios?

A. The total cost of the RIM and Participant test scenario is estimated to be $385 million over the ten-year goal period. The estimated residential rate impact[2] of the RIM and Participant test scenario begins at $0.35 and declines to $0.27 over the ten-year goals period for a customer using 1,000 kWh per month.

For the scenario that includes all TRC and Participant test passing programs, the total cost is estimated to be $626 million over the ten-year goals period. The estimated residential rate impact of the TRC and Participant test scenario begins at $0.51 and slightly decreases to $0.45 over the ten-year goals period for a customer using 1,000 kWh per month.

[2] Energy Conservation Cost Recovery Clause.

Projections of costs and rate impacts for all scenarios do not include Energy Survey programs, FPL's Commercial Load Control programs – Commercial Industrial Load Control (CILC) and Commercial/Industrial Demand Reduction (CDR) programs and FPL's CRD program. Costs for these programs are assumed to be the same for all goals scenarios.

Q. What goals and programs are FPL proposing for the period 2025-2034?

A. FPL is proposing goals of 419 Summer MW, 326 Winter MW, and 931 Annual GWh reductions over the period 2025-2034. The proposed DSM goals include FPL's load-management programs, which all pass the RIM test with the exception of the CDR program, which only passes the TRC test. These proposed goals also include the continuation and enhancement of FPL's current energy-efficiency programs, all of which pass the TRC test but do not pass the RIM test. The five Residential and five Commercial/Industrial programs associated with these proposed goals are summarized below:

Residential Sector:

1. Residential HVAC
2. Residential Ceiling Insulation
3. Residential Low Income
    a. Renter Pilot
4. Residential New Construction (BuildSmart®)
5. Residential Load Management (On Call®) with new HVAC on-bill option

Commercial/Industrial Sector:

1. Business HVAC
2. Business Lighting
3. Commercial/Industrial Demand Reduction
4. Business Custom Incentive
5. Business On Call®

This proposal of RIM- and TRC-passing programs will allow FPL to continue delivering meaningful energy-efficiency savings options to all customers including owners, renters, and low-income customers. The proposed goals factor in adjustments in participation levels to reflect market conditions and adjustments in projections based on the 2024 TP Study measure impacts. FPL has successfully built awareness of these programs with customers and contractors alike such that they can continue without any new start-up costs or ramp-up and be delivered with little or no incremental bill impact. Projections associated with the HVAC on-bill option ramp up, as this is a new program option that is planned to be delivered through a network of HVAC contractors. Additionally, the Low-Income program will add ceiling insulation for qualifying homes to increase the energy savings for these customers and the Renter Pilot is expected to bring additional benefits to low-income renters. The complete list of proposed programs and goals is shown on Exhibit JNF-4, page 1 and pages 23-34.

Q. What are the projected costs and rate impacts of FPL's proposed goals?

A. The total cost of FPL's proposed goals and programs is estimated to be $525 million over the ten-year goal period. The estimated residential rate impact of FPL's proposed goals and programs begins at $0.46 and decreases to $0.37 over the ten-year goals period for a customer using 1,000 kWh per month. FPL's proposed goals and programs, including the enhancements, are estimated to have lower costs compared to FPL's projected program costs in 2024.

Q. How does the cost of FPL's proposed goals and programs compare to the projected costs for the TRC scenario?

A. The TRC scenario has much higher costs than the FPL proposed goals and programs. The cost of additional energy-efficiency programs in the TRC scenario is about 50% higher in 2025 and increases to almost double the cost of FPL's proposed energy-efficiency programs over the ten-year goals period. The TRC scenario is expected to cost customers about $100 million more than FPL's proposed goals and programs over the ten-year goals period. A comparison of the ECCR rate impacts for each of the scenarios can be found in Exhibit JNF-4, page 1.

Q. Please describe the proposed HVAC on-bill tariff option for On Call®.

A. The foundation of FPL's overall DSM program is On Call®. On Call® is the largest residential demand-response program in the country and a key component of FPL's success in implementing cost-effective DSM for almost 40 years. Currently, On Call® provides bill credits to customers for allowing FPL to control customer-owned HVAC, water heating, and pool pump

appliances. FPL is proposing to expand the program in an innovative way by offering an on-bill payment option for efficient HVAC equipment. Through a voluntary tariff, this HVAC on-bill option would provide interested customers an opportunity to acquire a new, more energy-efficient HVAC unit for a fixed monthly charge. FPL would own and maintain the HVAC unit and the monthly charge would cover the capital cost of the HVAC equipment plus all maintenance and repairs of the unit for the ten-year duration of the tariffed agreement. In exchange for the right to control the unit during peak periods (load management), FPL would reduce the total cost to be collected over the term of the agreement and provide that savings to participating customers. Assuming the unit being replaced by the customer is less efficient than the current minimum standard, the customer would further benefit from the efficiency savings of the unit towards their energy consumption and monthly bill. The customer would also receive an upfront rebate from FPL's Residential HVAC program if selecting a qualifying high-efficiency unit. Since each HVAC installation is unique in terms of size and scope, the monthly charge would be structured as a formula based on the installed capital cost and expenses for each specific unit.

Q. Is this HVAC on-bill option cost-effective for FPL customers?

A. Yes. The program would be designed for the participants to pay all of the equipment and expenses of the program, while the general body of customers benefit from the avoided capacity savings related to FPL retaining control of the HVAC equipment. Notably, the program passes the RIM test and benefits

participants with reduced monthly equipment charges similar to how other On Call® customers benefit with monthly bill credits.

Q. How does the HVAC on-bill program impact the ECCR rate for FPL's customers?

A. Like other DSM programs, all costs associated with the HVAC on-bill tariff would be recovered through the ECCR mechanism. All of the monthly program revenues would also flow through the ECCR clause to offset program expenses. Since this program passes RIM, the general body of customers is assured the overall benefits of the program exceed costs, net of program revenues, over the term of the HVAC on-bill service agreement.

Q. How do FPL's proposed programs benefit customers who rent?

A. All of FPL's proposed DSM programs are inclusive of renter participation. FPL's energy survey programs provide renters with free energy assessments and recommendations for low- and no-cost actions that can be taken to reduce energy consumption. With landlord approval, renters can participate in FPL's load-management programs and benefit from other DSM programs that encourage energy efficiency. However, FPL recognizes that renters face a unique obstacle when it comes to making investments in energy-efficiency measures. Sometimes referred to as a the "landlord renter split incentive," the traditional value proposition for making an energy-efficiency investment does not hold true when the party paying the utility bill is not the same as the party making the capital investment. Landlords are typically responsible for equipment installations, replacements, and maintenance, while renters are

typically responsible for paying the utility bill for the unit they are renting. This creates a split in the traditional economic value proposition for making energy-efficiency investments. Since landlords do not pay the utility bill, there is no economic incentive to them for making incremental investments in more efficient appliances or building improvements. Renters, on the other hand, typically pay the utility bill yet do not have the opportunity to make capital investments that can produce energy-efficiency savings. This results in renters having less options to manage their utility expenses and increase their energy efficiency. FPL has historically addressed this situation first by offering energy surveys to all customers, whether they rent or own. An energy survey identifies not only investment opportunities to improve energy efficiency, but also many behavioral and no/low-cost actions renters can take to save energy. Examples include recommendations for thermostat settings, utilization of LED light bulbs, proper use of ceiling fans, and keeping windows and blinds closed. FPL also allows participation in other programs, including On Call®, with landlord agreement. Yet these options still do not overcome the landlord-renter split incentive.

FPL is proposing a new approach to overcoming this split incentive in a manner that allows low-income renters to receive the energy-saving benefit of more efficient HVAC equipment while keeping the landlord whole from a capital investment perspective. Proposed as a limited pilot to evaluate the effectiveness of this approach, FPL will pay the incremental cost of a more efficient HVAC

unit, up to $1,000, such that the landlord will only cover the cost of installing code-compliant equipment when replacing an HVAC unit for a tenant property. This will eliminate the disincentive the landlord has to make an incremental investment in energy-efficient equipment while allowing the low-income renter to receive the benefit of the more efficient HVAC equipment on their energy consumption and electric bill. FPL is proposing to operate this pilot for three years with an annual cap of 500 participants.

Q. In development of the proposed programs, did FPL include any measures that were eliminated during the screening process?

A. Yes. FPL's proposed Low Income program includes six measures that were eliminated in the measure screening due to the free-ridership screen. While the savings of these measures provide a reasonable economic value proposition for adoption, FPL recognizes that low-income customers may not have the financial resources or awareness to adopt such measures. Therefore, FPL believes a modest inclusion of appropriately tailored measures specifically for low-income customers is reasonable and does not unduly burden the general body of customers with their limited cost.

FPL also leveraged the benefits of certain heat pump measures, when combined with Air Conditioning measures, to ensure continuation of existing Residential HVAC program has broad applicability across FPL's customer base.

Q. Do FPL's proposed programs include any modifications or enhancements to increase participation?

A. Yes. FPL is proposing to continue each of its long-standing DSM programs with adjustments and enhancements intended to simplify program offerings, improve participation and results, and to reflect current market conditions. In the residential sector, FPL is proposing to increase the Residential HVAC program incentive to increase participating independent contractor (PIC) engagement and resulting program participation. FPL has experienced a decline in PIC participation in recent years which has negatively impacted program enrollments. By increasing the customer incentive, FPL expects more PICs will voluntarily participate in the program, leading to increased overall customer participation.

For the Residential On Call® program, FPL is adding a new HVAC on-bill option to increase participation. Since 2020, participation in the On Call® program has been significantly below the projections in the 2020 DSM Plan. The HVAC on-bill option is expected to increase overall participation in the program in a manner that keeps the program cost-effective.

In the commercial/industrial sector, FPL proposes to enhance the design of the Business HVAC program. FPL's current program design has been less effective in reaching the small and medium business sector. The enhancements include adding PICs as a delivery channel for small and medium business

HVAC systems and simplifying the incentive structure to foster greater participation by these customers. Many small business HVAC systems are installed and serviced by HVAC contractors who serve the residential market and are already PICs for FPL's residential program. By enhancing the Business HVAC program to include these PICs, FPL expects to increase participation by small and medium business customers. Larger systems will continue to be enrolled through FPL customer advisors and other independent engineering and construction contractors. A comparison of the proposed and current programs, including added and removed measures, is shown in Exhibit JNF-5.

Q. Are there any restrictions to FPL's proposed program designs from current settlement agreements?

A. No. FPL's proposed program designs are not impacted by the Company's 2021 base rate case settlement agreement. FPL's settlement agreement as approved by the Commission only limits modifications to the CDR and CILC bill credits, and FPL is not proposing any such modifications to those programs in this proceeding.[3]

[3] See Docket No. 20210015-EI, *In re: Petition by FPL for Base Rate Increase and Rate Unification*, Joint Motion for Approval of Settlement on behalf of FPL, OPC, FRF, FIPUG, and SACE, filed Aug. 10, 2021, Attachment A, Stipulation and Settlement Agreement at p.6; Final Order Approving 2021 Stipulation and Settlement Agreement, Order No. PSC-2021-0446-S-EI (Dec. 2, 2021); Supplemental Final Order, Order No. PSC-2024-0078-FOF-EI (March 25, 2024).

Q. How does FPL propose to ensure continuation of these programs does not cause increased costs generally associated with non-RIM passing programs?

A. FPL proposes to limit costs of non-RIM passing programs by capping participation once sector-level goals are met. This limitation on participation would only apply to energy-efficiency programs and provides a way to limit overall portfolio costs while still making valuable energy savings programs available to FPL customers. The Commission has previously approved such an approach with FPL's current DSM Plan.

Q. Does this conclude your direct testimony?

A. Yes.

ATTACHMENT 2

Florida Power & Light Company
Docket No. 20240012-EG

Corrected Exhibits JNF-4 and JNF-5
Corrected by Errata Filed July 12, 2024

RIM											
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Cumulative
Summer MW											
Residential	10.45	11.10	11.84	12.23	12.61	13.00	13.40	13.80	14.20	14.62	127.26
Commercial/Industrial	9.10	9.01	8.92	6.43	6.37	6.31	6.25	6.20	6.14	6.09	70.81
Total[1]	19.54	20.11	20.76	18.66	18.98	19.31	19.65	19.99	20.34	20.71	198.06
Winter MW											
Residential	10.33	11.32	12.50	13.00	13.52	14.06	14.63	15.21	15.82	16.47	136.87
Commercial/Industrial	4.85	4.80	4.75	3.24	3.21	3.18	3.15	3.12	3.08	3.05	36.43
Total[1]	15.18	16.12	17.25	16.25	16.73	17.24	17.77	18.33	18.91	19.52	173.30
Annual GWh											
Residential	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.02
Commercial/Industrial	0.15	0.15	0.15	0.12	0.12	0.12	0.12	0.12	0.12	0.12	1.32
Total[1]	0.15	0.15	0.15	0.13	0.13	0.13	0.13	0.13	0.12	0.12	1.34
Rate Impact ($/1,000 kwh)	$0.35	$0.34	$0.33	$0.32	$0.32	$0.31	$0.30	$0.29	$0.28	$0.27	
TRC											
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Cumulative
Summer MW											
Residential	29.88	30.45	31.23	31.76	32.37	33.01	33.66	34.33	35.02	35.75	327.45
Commercial/Industrial	20.08	20.21	20.39	18.28	18.61	18.95	19.24	19.48	19.64	19.71	194.60
Total[1]	49.97	50.66	51.62	50.04	50.98	51.96	52.90	53.81	54.66	55.46	522.06
Winter MW											
Residential	25.67	27.91	30.55	32.67	34.84	36.90	38.77	40.41	41.83	43.09	352.64
Commercial/Industrial	16.58	16.71	16.86	15.69	15.94	16.24	16.52	16.76	16.91	16.99	165.19
Total[1]	42.25	44.61	47.41	48.36	50.78	53.15	55.29	57.16	58.74	60.08	517.83
Annual GWh											
Residential	61.71	63.77	66.43	69.58	72.94	76.17	79.01	81.50	83.59	85.43	740.13
Commercial/Industrial	73.19	74.33	75.75	78.07	80.51	82.98	85.21	87.04	88.37	89.18	814.63
Total[1]	134.91	138.10	142.18	147.65	153.45	159.14	164.22	168.54	171.96	174.61	1,554.76
Rate Impact ($/1,000 kwh)	$0.51	$0.51	$0.50	$0.50	$0.50	$0.49	$0.48	$0.47	$0.46	$0.45	
PROPOSED											
	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	Cumulative
Summer MW											
Residential	26.22	26.46	26.85	26.87	26.99	27.15	27.36	27.59	27.87	28.18	271.54
Commercial/Industrial	16.24	16.26	16.28	13.89	13.94	14.00	14.05	14.11	14.17	14.23	147.17
Total[1]	42.46	42.72	43.13	40.76	40.93	41.15	41.41	41.70	42.04	42.41	418.71
Winter MW											
Residential	20.76	21.65	22.75	23.15	23.62	24.12	24.66	25.24	25.85	26.51	238.32
Commercial/Industrial	9.65	9.68	9.71	8.28	8.33	8.38	8.43	8.48	8.54	8.59	88.06
Total[1]	30.42	31.34	32.46	31.43	31.94	32.50	33.09	33.72	34.39	35.10	326.38
Annual GWh											
Residential	43.71	43.00	42.39	41.42	40.99	40.65	40.38	40.18	40.03	39.93	412.68
Commercial/Industrial	48.40	49.13	49.87	50.60	51.37	52.15	52.95	53.76	54.58	55.42	518.24
Total[1]	92.11	92.13	92.26	92.02	92.37	92.81	93.33	93.94	94.61	95.35	930.93
Rate Impact ($/1,000 kwh)	$0.46	$0.45	$0.44	$0.43	$0.42	$0.41	$0.40	$0.39	$0.38	$0.37	

1) May not add due to rounding

Goals Scenario: RIM

Program: Residential Load Management (On Call®)
Summary Program Description: Monthly bill credits for direct load control of HVAC, water heating and pool pumps

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,492	3,580	3,665	3,747	3,825	3,899	3,967	4,031	4,088	4,141
Summer MW*	9.84	10.09	10.33	10.56	10.78	10.99	11.18	11.36	11.52	11.67
Winter MW*	9.18	9.41	9.63	9.85	10.06	10.25	10.43	10.60	10.75	10.89
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program Cost Estimate	$ 36,096,985	$ 35,846,170	$ 35,592,860	$ 35,343,767	$ 35,325,571	$ 35,148,077	$ 34,969,005	$ 34,796,576	$ 34,629,339	$ 34,464,362

Program Measures
HVAC
Water Heater
Pool Pump

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	49,599	49,599	23,046
NPV Cost	39,338	16,293	0
Ratio	1.26	3.04	INFINITE

* Values are @ Generator

Goals Scenario: RIM

Program: Residential Load Management (On Call®)
Summary Program Description: HVAC on bill with direct load control

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	300	500	750	825	908	998	1,098	1,208	1,329	1,462
Summer MW*	0.60	1.01	1.51	1.66	1.83	2.01	2.21	2.44	2.68	2.95
Winter MW*	1.15	1.91	2.87	3.15	3.47	3.81	4.20	4.62	5.08	5.58
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Program Cost Estimate**	$ 1,094,767	$ 1,046,738	$ 983,119	$ 882,810	$ 751,076	$ 595,062	$ 425,137	$ (21,112)	$ (170,438)	$ (294,583)

Program Measures
HVAC

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	9,434	9,434	3,815
NPV Cost	6,582	3,013	3,013
Score	1.43	3.13	1.27

* Values are @ Generator
** Program costs net of program revenues

Goals Scenario: RIM

Program: Business On Call®
Summary Program Description: Monthly bill credits for direct load control of HVAC

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	1,090	1,081	1,072	1,065	1,058	1,052	1,046	1,041	1,036	1,032
Summer MW*	1.15	1.14	1.13	1.12	1.12	1.11	1.10	1.10	1.09	1.09
Winter MW*	-	-	-	-	-	-	-	-	-	-
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program Cost Estimate	$ 2,758,904	$ 2,749,796	$ 2,738,657	$ 2,726,489	$ 2,713,294	$ 2,700,835	$ 2,687,582	$ 2,674,571	$ 2,661,746	$ 2,648,824

Program Measures
HVAC

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	4,495	4,495	2,943
NPV Cost	4,292	1,351	0
Ratio	1.05	3.33	INFINITE

* Values are @ Generator

Goals Scenario: RIM

Program: CDR
Summary Program Description: Bill credits for control of customer loads >200 kW

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	7,500	7,425	7,351	5,000	4,950	4,901	4,851	4,803	4,755	4,707
Summer MW*	7.92	7.84	7.76	5.28	5.23	5.17	5.12	5.07	5.02	4.97
Winter MW*	4.82	4.78	4.73	3.22	3.18	3.15	3.12	3.09	3.06	3.03
Annual GWh*	0.09	0.09	0.09	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Program Cost Estimate	$ 37,511,423	$ 37,733,106	$ 37,951,050	$ 37,939,285	$ 37,934,424	$ 37,925,002	$ 37,911,063	$ 37,892,653	$ 37,869,816	$ 37,842,597

Program Measures
Controllable Load

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	27,621	27,621	37,483
NPV Cost	38,101	690	0
Ratio	0.72	40.06	INFINITE

* Values are @ Generator

Goals Scenario: RIM

Program: Business Custom Incentive
Summary Program Description: Customized incentives for qualifying energy efficiency projects

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	25	25	25	25	25	25	25	25	25	25
Summer MW*	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Winter MW*	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Annual GWh*	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Program Cost Estimate	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000

Program Measures
Non-Specified

* Values are @ Generator

Goals Scenario: TRC

Program: Residential HVAC Plus
Summary Program Description: Tiered upfront incentives for installation of energy efficient HVAC equipment and duct sealing

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	24,913	25,778	26,729	27,749	28,795	29,812	30,779	31,704	32,591	33,464
Summer MW*	4.26	4.52	4.82	5.15	5.50	5.85	6.18	6.51	6.82	7.14
Winter MW*	9.69	11.00	12.48	14.07	15.65	17.11	18.36	19.40	20.24	20.93
Annual GWh*	22.71	25.03	27.64	30.49	33.37	36.07	38.48	40.58	42.41	44.03
Program Cost Estimate	$ 6,492,727	$ 6,898,655	$ 7,354,392	$ 7,846,675	$ 8,349,026	$ 8,750,742	$ 9,183,455	$ 9,575,341	$ 9,930,186	$ 10,260,076

Program Measures

ASHP - CEE Tier 2: 16.8 SEER/16 SEER2; 9.0 HSPF (from elec resistance)
Properly Sized CAC
Duct Repair
ASHP - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2 (from elect resistance)
ASHP - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2, 9.0 HSPF
Central AC - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	192,512	192,512	543,304
NPV Cost	436,911	95,290	83,046
Score	0.44	2.02	6.54

* Values are @ Generator

Goals Scenario: TRC

Program: Residential Building Envelope
Summary Program Description: Upfront incentives for installation of qualifying ceiling insulation and windows

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,131	2,881	2,673	2,507	2,373	2,258	2,143	2,008	1,837	1,634
Summer MW*	5.14	4.63	4.17	3.76	3.40	3.07	2.77	2.50	2.25	2.03
Winter MW*	1.90	1.72	1.55	1.41	1.28	1.16	1.05	0.95	0.86	0.77
Annual GWh*	10.46	9.43	8.51	7.68	6.94	6.28	5.68	5.13	4.63	4.16
Program Cost Estimate	$ 1,148,314	$ 1,084,933	$ 1,041,752	$ 1,020,174	$ 1,013,556	$ 999,822	$ 987,315	$ 950,930	$ 879,780	$ 776,472

Program Measures
Energy Star Windows
Ceiling Insulation(R2 to R30)
Ceiling Insulation(R2 to R38)

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	68,177	68,177	118,366
NPV Cost	94,012	30,429	27,580
Score	0.73	2.24	4.29

* Values are @ Generator

Goals Scenario: TRC

Program: Residential Low Income Weatherization
Summary Program Description: Direct installation of energy saving measures

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	11,000	11,110	11,221	11,333	11,447	11,561	11,677	11,793	11,911	12,031
Summer MW*	6.60	6.67	6.74	6.80	6.87	6.94	7.01	7.08	7.15	7.22
Winter MW*	1.88	1.90	1.91	1.93	1.95	1.97	1.99	2.01	2.03	2.05
Annual GWh*	14.61	14.76	14.90	15.05	15.20	15.35	15.51	15.66	15.82	15.98
Program Cost Estimate	$ 4,719,000	$ 4,766,190	$ 4,813,852	$ 4,861,990	$ 4,910,610	$ 4,959,716	$ 5,009,314	$ 5,059,407	$ 5,110,001	$ 5,161,101

Program Measures

Weatherization (Caulking/Stripping)
Duct Testing & Repair
Air Conditioning Unit Maintenance
Air Conditioning Outdoor Coil Cleaning
Faucet Aerators - Kitchen and Bathroom
Low-Flow Showerhead
Water Heater Pipe Wrap
Ceiling Insulation
LED

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	131,056	131,056	241,019
NPV Cost	215,904	29,729	0
Score	0.61	4.41	INFINITE

* Values are @ Generator

Goals Scenario: TRC

Program: Residential Whole Home Plus
Summary Program Description: Tiered upfront incentives for energy efficient new home construction

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	4,748	4,775	4,817	4,868	4,923	4,984	5,045	5,123	5,223	5,348
Summer MW*	2.83	2.84	2.86	2.90	2.94	2.99	3.04	3.12	3.22	3.36
Winter MW*	1.31	1.30	1.30	1.30	1.32	1.33	1.34	1.37	1.41	1.47
Annual GWh*	10.15	10.14	10.21	10.32	10.47	10.64	10.81	11.09	11.48	12.02
Program Cost Estimate	$ 1,299,337	$ 1,294,909	$ 1,303,232	$ 1,318,526	$ 1,337,201	$ 1,336,974	$ 1,359,586	$ 1,396,384	$ 1,450,709	$ 1,525,898

Program Measures

New Construction - Whole Home Improvements - Tier 1
New Construction - Whole Home Improvements - Tier 2
BuildSmart® - Non-Specified

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	71,449	71,449	165,023
NPV Cost	131,383	35,684	31,005
Score	0.54	2.00	5.32

* Values are @ Generator

Goals Scenario: TRC

Program: Residential Retail Products
Summary Program Description: Incentives for various retail energy efficiency products

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	258,515	269,535	282,315	297,308	313,420	328,996	342,750	354,091	361,889	366,831
Summer MW*	0.61	0.70	0.80	0.92	1.04	1.16	1.26	1.33	1.37	1.38
Winter MW*	0.57	0.68	0.80	0.96	1.12	1.27	1.39	1.46	1.46	1.40
Annual GWh*	3.77	4.40	5.16	6.03	6.95	7.82	8.53	9.03	9.25	9.25
Program Cost Estimate	$ 413,210	$ 466,969	$ 530,029	$ 600,957	$ 674,347	$ 653,738	$ 706,122	$ 752,034	$ 791,178	$ 825,673

Program Measures

Energy Star Clothes Washer
Hot Water Pipe Insulation
LED Specialty Lamps-5W Chandelier
Smart Thermostat

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	34,504	34,504	102,784
NPV Cost	83,899	32,695	27,341
Score	0.41	1.06	3.76

* Values are @ Generator

Goals Scenario: TRC

Program: Residential Load Management (On Call®)
Summary Program Description: Monthly bill credits for direct load control of HVAC, water heating and pool pumps

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,492	3,580	3,665	3,747	3,825	3,899	3,967	4,031	4,088	4,141
Summer MW*	9.84	10.09	10.33	10.56	10.78	10.99	11.18	11.36	11.52	11.67
Winter MW*	9.18	9.41	9.63	9.85	10.06	10.25	10.43	10.60	10.75	10.89
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program Cost Estimate	$ 36,096,985	$ 35,846,170	$ 35,592,860	$ 35,343,767	$ 35,325,571	$ 35,148,077	$ 34,969,005	$ 34,796,576	$ 34,629,339	$ 34,464,362

Program Measures
HVAC
Water Heater
Pool Pump

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	49,599	49,599	23,046
NPV Cost	39,338	16,293	0
Ratio	1.26	3.04	INFINITE

* Values are @ Generator

Goals Scenario: TRC

Program: Residential Load Management (On Call®)
Summary Program Description: HVAC on bill with direct load control

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	300	500	750	825	908	998	1,098	1,208	1,329	1,462
Summer MW[1]	0.60	1.01	1.51	1.66	1.83	2.01	2.21	2.44	2.68	2.95
Winter MW[1]	1.15	1.91	2.87	3.15	3.47	3.81	4.20	4.62	5.08	5.58
Annual GWh[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Program Cost Estimate[2]	$ 1,094,767	$ 1,046,738	$ 983,119	$ 882,810	$ 751,076	$ 595,062	$ 425,137	$ (21,112)	$ (170,438)	$ (294,583)

1) Values are @ Generator
2) Program costs net of program revenues

Program Measures
HVAC

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	9,434	9,434	3,815
NPV Cost	6,582	3,013	3,013
Score	1.43	3.13	1.27

Goals Scenario: TRC

Program: Business HVAC Plus
Summary Program Description: Tiered upfront incentives for installation of energy efficient HVAC equipment

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	5,863	5,958	6,070	6,235	6,398	6,571	6,731	6,868	6,968	7,025
Summer MW*	6.19	6.29	6.41	6.58	6.76	6.94	7.11	7.25	7.36	7.42
Winter MW*	7.37	7.41	7.46	7.56	7.61	7.73	7.85	7.97	8.06	8.12
Annual GWh*	35.90	36.21	36.62	37.41	38.23	39.12	39.96	40.70	41.25	41.57
Program Cost Estimate	$ 4,201,770	$ 4,298,865	$ 4,417,284	$ 4,593,701	$ 4,774,134	$ 4,889,388	$ 5,065,042	$ 5,210,049	$ 5,305,495	$ 5,338,554

Program Measures

Commercial Duct Sealing
Smart Thermostat
ECM Motors on Furnaces
Waterside Economizer
VFD on Cooling Tower Fans
Chilled Water Reset
VAV System
Facility Energy Management System_VT
Efficient Exhaust Hood
Energy Star Room AC
Facility Energy Management System_SC
Facility Energy Management System_SH
VFD on HVAC Fan
Strategic Energy Management
Industrial Duct Sealing
Airside Economizer
High Volume Low Speed Fan (HVLS)
Infiltration Reduction - Air Sealing
Custom Measure - Non-Lighting
HE Water Cooled Chiller - Centrifugal Compressor - 200 Tons
HE Water Cooled Chiller - Centrifugal Compressor - 500 Tons
HE DX Less than 5.4 Tons Elect Heat
HE DX Less than 5.4 Tons Other Heat
High Efficiency PTAC
High Efficiency PTHP
Water Source Heat Pump
VFD on HVAC Pump

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	208,555	208,555	537,863
NPV Cost	460,073	146,722	137,637
Score	0.45	1.42	3.91

* Values are @ Generator

Goals Scenario: TRC

Program: Business Lighting Plus
Summary Program Description: Upfront incentives for installation of energy efficiency lighting products

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,535	3,586	3,639	3,700	3,759	3,823	3,889	3,956	4,024	4,093
Summer MW*	3.73	3.79	3.84	3.91	3.97	4.04	4.11	4.18	4.25	4.32
Winter MW*	3.29	3.34	3.39	3.44	3.50	3.55	3.61	3.68	3.74	3.80
Annual GWh*	28.85	29.27	29.70	30.20	30.67	31.19	31.73	32.28	32.83	33.39
Program Cost Estimate	$ 606,054	$ 607,817	$ 609,319	$ 613,980	$ 616,288	$ 618,661	$ 624,163	$ 629,882	$ 635,343	$ 640,143

Program Measures

Occupancy Sensors, Ceiling Mounted
LED Exterior Wall Packs
Outdoor Motion Sensor
LED Parking Lighting
LED High Bay_HID Baseline
LED High Bay_LF Baseline
LED Linear - Fixture Replacement

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	148,236	148,236	415,653
NPV Cost	346,766	103,687	102,559
Score	0.43	1.43	4.05

* Values are @ Generator

Goals Scenario: TRC

Program: Business Water Heating
Summary Program Description: Upfront incentives for installation of energy efficient water heating equipment

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	225	291	366	447	526	597	652	686	698	692
Summer MW*	0.24	0.31	0.39	0.47	0.56	0.63	0.69	0.72	0.74	0.73
Winter MW*	0.37	0.48	0.60	0.73	0.85	0.97	1.05	1.11	1.13	1.12
Annual GWh*	2.00	2.56	3.19	3.88	4.55	5.15	5.61	5.90	6.00	5.95
Program Cost Estimate	$ 488,288	$ 618,067	$ 766,814	$ 929,264	$ 1,086,673	$ 1,169,504	$ 1,273,049	$ 1,334,278	$ 1,349,107	$ 1,325,934

Program Measures

Demand Controlled Circulating Systems
Drain Water Heat Recovery
Faucet Aerator
Heat Pump Water Heater
Solar Thermal Water Heating System Commercial
Thermostatic Shower Restriction Valve Commercial

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	19,566	19,566	57,789
NPV Cost	51,001	15,775	13,510
Score	0.38	1.24	4.28

* Values are @ Generator

Goals Scenario: TRC

Program: Business Refrigeration
Summary Program Description: Upfront incentives for installation of energy efficient refrigeration equipment

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	83	84	84	86	86	86	87	88	89	90
Summer MW*	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.09	0.10
Winter MW*	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.08
Annual GWh*	0.58	0.58	0.59	0.60	0.60	0.60	0.61	0.62	0.62	0.63
Program Cost Estimate	$ 131,773	$ 133,391	$ 134,722	$ 136,489	$ 136,630	$ 131,115	$ 132,681	$ 134,338	$ 135,819	$ 136,966

Program Measures
Anti-Sweat Controls
Refrigerated Display Case LED Lighting
VSD Controlled Compressor

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	3,036	3,036	8,791
NPV Cost	7,813	2,631	2,238
Score	0.39	1.15	3.93

* Values are @ Generator

Goals Scenario: TRC

Program: Business Motors and Drives
Summary Program Description: Upfront incentives for installation of energy efficient motors and drives

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	580	536	499	505	523	541	556	563	558	544
Summer MW*	0.61	0.57	0.53	0.53	0.55	0.57	0.59	0.59	0.59	0.57
Winter MW*	0.55	0.50	0.47	0.47	0.49	0.51	0.52	0.53	0.53	0.51
Annual GWh*	4.79	4.42	4.11	4.16	4.32	4.48	4.62	4.67	4.63	4.50
Program Cost Estimate	$ 929,369	$ 865,690	$ 811,712	$ 817,704	$ 841,539	$ 814,523	$ 833,541	$ 842,521	$ 838,574	$ 821,676

Program Measures

Escalator Motor Efficiency Controller
High Efficiency Air Compressor
VFD on Process Pump
Synchronous Belt on 75hp ODP Motor
Synchronous Belt on 15hp ODP Motor
Synchronous Belt on 5hp ODP Motor

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	21,641	21,641	64,583
NPV Cost	57,270	17,249	14,304
Score	0.38	1.25	4.52

* Values are @ Generator

Goals Scenario: TRC

Program: Business Cooking
Summary Program Description: Upfront incentives for installation of energy efficient cooking equipment

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	75	104	136	170	201	230	253	270	281	289
Summer MW*	0.08	0.11	0.14	0.18	0.21	0.24	0.27	0.28	0.30	0.30
Winter MW*	0.04	0.06	0.07	0.09	0.11	0.13	0.14	0.15	0.15	0.16
Annual GWh*	0.43	0.59	0.77	0.96	1.14	1.31	1.44	1.53	1.60	1.64
Program Cost Estimate	$ 40,758	$ 56,137	$ 73,377	$ 91,643	$ 108,803	$ 109,136	$ 120,036	$ 128,188	$ 133,751	$ 137,277

Program Measures
Energy Star Convection Oven
Energy Star Steamer

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	5,372	5,372	13,421
NPV Cost	11,827	3,416	2,761
Score	0.45	1.57	4.86

* Values are @ Generator

Goals Scenario: TRC

Program: Commercial/Industrial Demand Reduction
Summary Program Description: Bill credits for control of customer loads >200 kW

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	7,500	7,425	7,351	5,000	4,950	4,901	4,851	4,803	4,755	4,707
Summer MW*	7.92	7.84	7.76	5.28	5.23	5.17	5.12	5.07	5.02	4.97
Winter MW*	4.82	4.78	4.73	3.22	3.18	3.15	3.12	3.09	3.06	3.03
Annual GWh*	0.09	0.09	0.09	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Program Cost Estimate	$ 37,511,423	$ 37,733,106	$ 37,951,050	$ 37,939,285	$ 37,934,424	$ 37,925,002	$ 37,911,063	$ 37,892,653	$ 37,869,816	$ 37,842,597

Program Measures
Controllable Load

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	27,621	27,621	37,483
NPV Cost	38,101	690	0
Ratio	0.72	40.06	INFINITE

* Values are @ Generator

Goals Scenario: TRC

Program: Business On Call®
Summary Program Description: Monthly bill credits for direct load control of HVAC

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	1,090	1,081	1,072	1,065	1,058	1,052	1,046	1,041	1,036	1,032
Summer MW*	1.15	1.14	1.13	1.12	1.12	1.11	1.10	1.10	1.09	1.09
Winter MW*	-	-	-	-	-	-	-	-	-	-
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program Cost Estimate	$ 2,758,904	$ 2,749,796	$ 2,738,657	$ 2,726,489	$ 2,713,294	$ 2,700,835	$ 2,687,582	$ 2,674,571	$ 2,661,746	$ 2,648,824

Program Measures
HVAC

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	4,495	4,495	2,943
NPV Cost	4,292	1,351	0
Ratio	1.05	3.33	INFINITE

* Values are @ Generator

Goals Scenario: TRC

Program: Business Custom Incentive
Summary Program Description: Customized incentives for qualifying energy efficiency projects

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	73	82	93	109	128	146	162	176	188	198
Summer MW*	0.08	0.09	0.10	0.12	0.14	0.15	0.17	0.19	0.20	0.21
Winter MW*	0.07	0.08	0.09	0.10	0.12	0.13	0.15	0.16	0.18	0.18
Annual GWh*	0.55	0.61	0.68	0.80	0.94	1.07	1.18	1.29	1.38	1.45
Program Cost Estimate	$ 123,666	$ 139,873	$ 158,845	$ 188,734	$ 221,937	$ 241,096	$ 267,860	$ 290,568	$ 309,174	$ 324,050

Program Measures
Ceiling Insulation(R2 to R30)
Reflective Roof Treatment
Efficient Battery Charger
Ozone Laundry Commercial
LEED New Construction Whole Building
Grain Bin Aeration Control System
Energy Efficient Transformers
Low Pressure-Drop Filters
Dairy Refrigeration Heat Recovery
Milk Pre-Cooler
Other

Cost Effectiveness

	RIM	TRC	Participant
NPV Benefits	4,341	4,341	12,651
NPV Cost	11,213	3,705	3,169
Score	0.39	1.17	3.99

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential HVAC
Summary Program Description: Upfront incentives for installation of energy efficient HVAC systems

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	20,000	20,200	20,402	20,606	20,812	21,020	21,230	21,443	21,657	21,874
Summer MW*	2.53	2.56	2.58	2.61	2.64	2.66	2.69	2.72	2.74	2.77
Winter MW*	6.12	6.18	6.25	6.31	6.37	6.44	6.50	6.57	6.63	6.70
Annual GWh*	14.11	14.25	14.40	14.54	14.69	14.83	14.98	15.13	15.28	15.43
Program Cost Estimate	$ 4,892,820	$ 4,941,748	$ 4,991,166	$ 5,041,078	$ 5,091,488	$ 5,142,403	$ 5,193,827	$ 5,245,766	$ 5,298,223	$ 5,351,205

Program Measures

ASHP - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2 (from elect resistance)
ASHP - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2, 9.0 HSPF
Central AC - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	87,280	87,280	249,559
NPV Cost	205,047	32,886	24,404
Score	0.43	2.65	10.23

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential Ceiling Insulation
Summary Program Description: Upfront incentives for installation of ceiling insulation in qualifying homes

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,000	2,700	2,430	2,187	1,968	1,771	1,594	1,435	1,291	1,162
Summer MW*	5.12	4.61	4.15	3.74	3.36	3.03	2.72	2.45	2.21	1.99
Winter MW*	1.89	1.70	1.53	1.38	1.24	1.12	1.01	0.90	0.81	0.73
Annual GWh*	10.43	9.39	8.45	7.60	6.84	6.16	5.54	4.99	4.49	4.04
Program Cost Estimate	$ 1,045,624	$ 941,061	$ 846,955	$ 762,260	$ 686,034	$ 617,430	$ 555,687	$ 500,119	$ 450,107	$ 405,096

Program Measures

Ceiling Insulation(R2 to R30)
Ceiling Insulation(R2 to R38)

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	69,736	69,736	119,449
NPV Cost	94,006	27,039	24,601
Score	0.74	2.58	4.86

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential Low Income Weatherization
Summary Program Description: Direct installation of energy saving measures

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	11,000	11,110	11,221	11,333	11,447	11,561	11,677	11,793	11,911	12,031
Summer MW*	6.60	6.67	6.74	6.80	6.87	6.94	7.01	7.08	7.15	7.22
Winter MW*	1.88	1.90	1.91	1.93	1.95	1.97	1.99	2.01	2.03	2.05
Annual GWh*	14.61	14.76	14.90	15.05	15.20	15.35	15.51	15.66	15.82	15.98
Program Cost Estimate	$ 4,719,000	$ 4,766,190	$ 4,813,852	$ 4,861,990	$ 4,910,610	$ 4,959,716	$ 5,009,314	$ 5,059,407	$ 5,110,001	$ 5,161,101

Program Measures

Weatherization (Caulking/Stripping)
Duct Testing & Repair
Air Conditioning Unit Maintenance
Air Conditioning Outdoor Coil Cleaning
Faucet Aerators - Kitchen and Bathroom
Low-Flow Showerhead
Water Heater Pipe Wrap
Ceiling Insulation
LED

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	131,056	131,056	241,019
NPV Cost	215,904	29,729	0
Score	0.61	4.41	INFINITE

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential Low Income Renter Pilot
Summary Program Description: Landlord incentive for high efficiency HVAC equipment

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	500	500	500	-	-	-	-	-	-	-
Summer MW*	0.06	0.06	0.06	-	-	-	-	-	-	-
Winter MW*	0.04	0.04	0.04	-	-	-	-	-	-	-
Annual GWh*	0.46	0.46	0.46	-	-	-	-	-	-	-
Program Cost Estimate	$ 500,000	$ 500,000	$ 500,000	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00

Program Measures

ASHP - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2 (from elect resistance)
ASHP - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2, 9.0 HSPF
Central AC - ENERGY STAR/CEE Tier 1: 16 SEER/15.2 SEER2

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	880	880	3,131
NPV Cost	2,930	608	256
Score	0.30	1.45	12.25

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential New Construction (BuildSmart®)
Summary Program Description: Incentives to encourage builders to design and construct energy efficient new homes

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,700	3,737	3,774	3,812	3,850	3,889	3,928	3,967	4,007	4,047
Summer MW*	1.45	1.46	1.47	1.49	1.50	1.52	1.53	1.55	1.57	1.58
Winter MW*	0.51	0.51	0.52	0.52	0.53	0.53	0.54	0.54	0.55	0.56
Annual GWh*	4.09	4.13	4.18	4.22	4.26	4.30	4.35	4.39	4.43	4.48
Program Cost Estimate	$ 412,893	$ 417,022	$ 421,193	$ 425,405	$ 429,659	$ 433,955	$ 438,295	$ 442,678	$ 447,104	$ 451,575

Program Measures
Non-Specified

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	32,226	32,226	64,133
NPV Cost	52,338	17,317	13,740
Score	0.62	1.86	4.67

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential Load Management (On Call®)
Summary Program Description: Monthly bill credits for direct load control of HVAC, water heating and pool pumps

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,492	3,580	3,665	3,747	3,825	3,899	3,967	4,031	4,088	4,141
Summer MW*	9.84	10.09	10.33	10.56	10.78	10.99	11.18	11.36	11.52	11.67
Winter MW*	9.18	9.41	9.63	9.85	10.06	10.25	10.43	10.60	10.75	10.89
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program Cost Estimate	$ 36,096,985	$ 35,846,170	$ 35,592,860	$ 35,343,767	$ 35,325,571	$ 35,148,077	$ 34,969,005	$ 34,796,576	$ 34,629,339	$ 34,464,362

Program Measures
HVAC
Water Heater
Pool Pump

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	49,599	49,599	23,046
NPV Cost	39,338	16,293	0
Ratio	1.26	3.04	INFINITE

* Values are @ Generator

Goals Scenario: Proposed

Program: Residential Load Management (On Call®)
Summary Program Description: HVAC on bill with direct load control

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	300	500	750	825	908	998	1,098	1,208	1,329	1,462
Summer MW[1]	0.60	1.01	1.51	1.66	1.83	2.01	2.21	2.44	2.68	2.95
Winter MW[1]	1.15	1.91	2.87	3.15	3.47	3.81	4.20	4.62	5.08	5.58
Annual GWh[1]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Program Cost Estimate[2]	$ 1,094,767	$ 1,046,738	$ 983,119	$ 882,810	$ 751,076	$ 595,062	$ 425,137	$ (21,112)	$ (170,438)	$ (294,583)

1) Values are @ Generator
2) Program costs net of program revenues

Program Measures
HVAC

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	9,434	9,434	3,815
NPV Cost	6,582	3,013	3,013
Score	1.43	3.13	1.27

Goals Scenario: Proposed

Program: Business Heating, Ventilating, & Air Conditioning (HVAC)
Summary Program Description: Upfront incentives for installation of energy efficient HVAC systems

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,700	3,737	3,774	3,812	3,850	3,889	3,928	3,967	4,007	4,047
Summer MW*	3.91	3.95	3.98	4.02	4.07	4.11	4.15	4.19	4.23	4.27
Winter MW*	1.98	2.00	2.02	2.04	2.06	2.08	2.11	2.13	2.15	2.17
Annual GWh*	23.24	23.48	23.71	23.95	24.19	24.43	24.67	24.92	25.17	25.42
Program Cost Estimate	$ 2,228,473	$ 2,250,758	$ 2,273,266	$ 2,295,998	$ 2,318,958	$ 2,342,148	$ 2,365,569	$ 2,389,225	$ 2,413,117	$ 2,437,248

Program Measures

HE Water Cooled Chiller - Centrifugal Compressor - 200 Tons
HE Water Cooled Chiller - Centrifugal Compressor - 500 Tons
HE DX Less than 5.4 Tons Elect Heat
HE DX Less than 5.4 Tons Other Heat
High Efficiency PTAC
High Efficiency PTHP
Water Source Heat Pump
VFD on HVAC Pump

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	125,588	125,588	337,589
NPV Cost	287,119	89,854	84,937
Ratio	0.44	1.40	3.97

* Values are @ Generator

Goals Scenario: Proposed

Program: Business Lighting
Summary Program Description: Upfront incentives for installation of energy efficient LED lighting

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	3,070	3,132	3,194	3,258	3,323	3,390	3,458	3,527	3,597	3,669
Summer MW*	3.24	3.31	3.37	3.44	3.51	3.58	3.65	3.72	3.80	3.87
Winter MW*	2.82	2.88	2.93	2.99	3.05	3.11	3.18	3.24	3.30	3.37
Annual GWh*	25.00	25.50	26.01	26.53	27.06	27.60	28.15	28.72	29.29	29.88
Program Cost Estimate	$ 312,761	$ 319,017	$ 325,397	$ 331,905	$ 338,543	$ 345,314	$ 352,220	$ 359,265	$ 366,450	$ 373,779

Program Measures

LED High Bay_HID Baseline
LED High Bay_LF Baseline
LED Linear - Fixture Replacement

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	130,380	130,380	363,775
NPV Cost	303,224	94,022	93,040
Ratio	0.43	1.39	3.91

* Values are @ Generator

Goals Scenario: Proposed

Program: Commercial/Industrial Demand Reduction
Summary Program Description: Bill credits for control of customer loads >200 kW

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	7,500	7,425	7,351	5,000	4,950	4,901	4,851	4,803	4,755	4,707
Summer MW*	7.92	7.84	7.76	5.28	5.23	5.17	5.12	5.07	5.02	4.97
Winter MW*	4.82	4.78	4.73	3.22	3.18	3.15	3.12	3.09	3.06	3.03
Annual GWh*	0.09	0.09	0.09	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Program Cost Estimate	$ 37,511,423	$ 37,733,106	$ 37,951,050	$ 37,939,285	$ 37,934,424	$ 37,925,002	$ 37,911,063	$ 37,892,653	$ 37,869,816	$ 37,842,597

Program Measures
Controllable Load

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	27,621	27,621	37,483
NPV Cost	38,101	690	0
Ratio	0.72	40.06	INFINITE

* Values are @ Generator

Goals Scenario: Proposed

Program: Business Custom Incentive
Summary Program Description: Customized incentives for qualifying energy efficiency projects

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	25	25	25	25	25	25	25	25	25	25
Summer MW*	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Winter MW*	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03
Annual GWh*	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06	0.06
Program Cost Estimate	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000	$ 20,000

Program Measures
Non-Specified

* Values are @ Generator

Goals Scenario: Proposed

Program: Business On Call®
Summary Program Description: Monthly bill credits for direct load control of HVAC

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Participants	1,090	1,081	1,072	1,065	1,058	1,052	1,046	1,041	1,036	1,032
Summer MW*	1.15	1.14	1.13	1.12	1.12	1.11	1.10	1.10	1.09	1.09
Winter MW*	-	-	-	-	-	-	-	-	-	-
Annual GWh*	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Program Cost Estimate	$ 2,758,904	$ 2,749,796	$ 2,738,657	$ 2,726,489	$ 2,713,294	$ 2,700,835	$ 2,687,582	$ 2,674,571	$ 2,661,746	$ 2,648,824

Program Measures
HVAC

Cost Effectiveness

$(000)	RIM	TRC	Participant
NPV Benefits	4,495	4,495	2,943
NPV Cost	4,292	1,351	0
Ratio	1.05	3.33	INFINITE

* Values are @ Generator

Comparison of Current and Proposed DSM Programs			
Current Programs	**Proposed Programs**	**Differences**	
		Measures Removed	**Measures Added**
Residential Sector Programs	**Residential Sector Programs**		
Residential Home Energy Survey	Residential Home Energy Survey	None	None
Residential Load Management (On Call®)	Residential Load Management (On Call®)	None	HVAC On Bill Option
Residential Air Conditioning	Residential HVAC	None	None
Residential New Construction (BuildSmart®)	Residential New Construction (BuildSmart®)	None	None
Residential Ceiling Insulation	Residential Ceiling Insulation	None	None
Residential Low Income	Residential Low Income	None	Ceiling Insulation
	Residential Low Income Renter (Pilot)	New	New
Business Sector Programs	**Business Sector Programs**		
Business Energy Survey	Business Energy Survey	None	None
Business On Call	Business On Call	None	None
Commercial/Industrial Demand Reduction	Commercial/Industrial Demand Reduction	None	None
Commercial/Industrial Load Control (CILC)	Commercial/Industrial Load Control (CILC)	None	None
Business Heating, Ventilating, & Air Conditioning (HVAC)	Business Heating, Ventilating, & Air Conditioning (HVAC)	**1.** Thermal Energy Storage (TES) **2.** Glycol cooled computer room units (with & w/o economizer) **3.** Demand Control Ventilation (DCV) Energy Recovery Ventilation (ERV)	**1.** VFD on HVAC pump
Business Lighting	Business Lighting	**1.** Premium linear fluorescent lamps with high-efficiency ballasts **2.** Compact fluorescent lamp (CFL) fixtures **3.** Pulse-start metal halide (PSMH)	**1.** LED Linear Fixture Replacement
Business Custom Incentive (BCI)	Business Custom Incentive (BCI)	None	None
Other Programs Conservation Research & Development (CRD)	**Other Programs** Conservation Research & Development (CRD)	None	None

Docket No. 20240012-EG
Comparison of Current
Programs to Proposed Programs
Corrected Exhibit JNF-5, Page 1 of 1