Dianne M. Triplett
DEPUTY GENERAL COUNSEL

July 2, 2024

VIA ELECTRONIC MAIL

Mr. Adam J. Teitzman, Commission Clerk
Office of Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: *Docket 20240025-EI, Petition for Rate Increase by Duke Energy Florida, LLC*

Dear Mr. Teitzman,

Please find enclosed for electronic filing on behalf of Duke Energy Florida, LLC ("DEF"), DEF's Rebuttal Testimony of Edward L. Scott.

Thank you for your assistance in connection with this matter. Please feel free to call me at (727) 820-4692 should you have any questions concerning this filing.

Respectfully submitted,

/s/Dianne M. Triplett

Dianne Triplett

DMT/mh

Attachment

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Phone: 727.820.4692 ▪ Email: dianne.triplett@duke-energy.com

<u>CERTIFICATE OF SERVICE</u>

Docket No. 20240025-EI

I HEREBY CERTIFY that a true and correct copy of the foregoing has been furnished by electronic mail this 2nd day of July, 2024, to the following:

<u>/s/ Dianne M. Triplett</u>
Dianne M. Triplett

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BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for rate increase by Duke Energy Florida, LLC	**Docket No. 20240025-EI**
	Submitted for filing: July 2, 2024

REBUTTAL TESTIMONY

OF

EDWARD L. SCOTT

On behalf of DUKE ENERGY FLORIDA, LLC

I. INTRODUCTION AND SUMMARY

Q. Please state your name and business address.

A. My name is Edward L. Scott. My business address is 6565 38th Avenue North, St. Petersburg, Florida 33710.

Q. Did you previously file direct testimony in this proceeding?

A. Yes. I submitted pre-filed Direct Testimony in this docket on April 2, 2024. My direct testimony supported the Company's transmission capital and O&M expense for the test years applicable to this proceeding and demonstrated that the investments are necessary to meet the challenges facing the Company—customer growth, load growth, and increasingly stringent regulatory requirements pertaining to system reliability. My testimony noted that the 2021 Settlement Agreement facilitated transmission investment to maintain reliability and meet the ongoing needs of the transmission system. I indicated that the capital investment in the DEF transmission system over the period 2021-23 (as well as past investment) has led to significant improvement in the system's reliability as measured by standard industry metrics. I also demonstrated that these investments were accompanied by prudent and responsible management, to the benefit of DEF's customers, including a detailed explanation of the extensive long-term strategic planning and cost management practices in which DEF engages.

Q. Do you continue to fill the same role within DEF as was described in your Direct Testimony?

A. No. On May 1, 2024, I moved into the role of General Manager of Transmission Planning for Duke Energy.

Q. What are the duties and responsibilities of your new position?

A. As General Manager of Transmission Planning, I am responsible for the planning of Duke Energy's electric transmission system in six states. I am responsible for development of company Transmission Plans, regional (SERC Reliability Corporation, Reliability First Corporation, Florida Reliability Coordinating Council ("FRCC")) process strategies and assessments, joint studies with adjacent interconnected utilities and Regional Transmission Organizations/Independent System Operators, and analysis and studies as required under the Federal Energy Regulatory Commission ("FERC") Open Access Transmission Tariff. I am also responsible for ensuring compliance with all safety, environmental and regulatory policies, and business practices. I also serve as Vice Chair on the FRCC's Operating Committee.

Q. What is the purpose of your Rebuttal Testimony?

A. The purpose of my Rebuttal Testimony is to respond to certain assertions and conclusions regarding the Company's proposed transmission investments contained in the direct testimonies of the Office of Public Counsel ("OPC") Witnesses Kevin J. Mara, Helmuth W. Schultz, III, and David Dismukes,[1] and

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[1] Witness Dismukes makes generalized criticisms of what he calls "alternative forms of regulation" and, in particular, multi-year rate plan (MYRP) mechanisms. In this rebuttal testimony, I respond to his testimony concerning MYRP; in particular, his assertion that "alternative regulation does not improve reliability."

Florida Rising and League of United Latin American Citizens ("FL Rising/LULAC") Witness Karl R. Rábago. My rebuttal testimony should be read in conjunction with DEF Witness Brian M. Lloyd's rebuttal testimony, who responds to these intervenors' recommendations from a distribution perspective.

Q. How is your testimony organized?

A. My rebuttal testimony is organized as follows:

I. In Section I, I provide a summary of my rebuttal testimony.

II. In Section II, I respond to recommendations and statements related to the Company's proposed 2026 and 2027 transmission investments.

III. In Section III, I provide an overview of the Company's Project Management Center of Excellence and the Company's project planning and development process.

IV. In Section IV, I respond to recommendations and statements related to benefit cost analysis and alternative analysis for transmission-related investments.

V. In Section V, I provide some concluding remarks.

Q. Do you have any exhibits to your rebuttal testimony?

A. No.

Q. Please summarize your rebuttal testimony.

DEF's experience, which Witness Dismukes ignores, is directly to the contrary, as my direct testimony demonstrated.

A. I note first that none of the intervenor witnesses point to any specific transmission project and argue that the project is either unnecessary or that the projected costs are unreasonable. The Company supplied reams of data in response to intervenor information requests—intervenors issued over 100 transmission-related discovery requests, and the responses included hundreds of documents comprising thousands of pages to support the transmission investments. Presumably, intervenors reviewed all of this data,[2] yet no intervenor has taken issue with any of the specific transmission investments the Company proposes to make.

Instead of specifics, intervenor witnesses offer only generalities. For example, OPC Witness Mara asserts that the Company's projected transmission investments in 2025 and 2026 are too speculative and should be removed from the case, but he ignores the fact that the Company has already demonstrated its ability to execute the same level of investment or more. OPC Witness Schultz and FL Rising/LULAC Witness Rábago argue that the Company's proposed transmission investments are excessive, but they ignore the *need* for these investments, as demonstrated in my direct testimony. They simply pay short shrift to the amount of investment required over the next several years to address the aging grid infrastructure and enable the transition to a cleaner energy future.

DEF is not alone in its need to address and upgrade its aging infrastructure as the nation as a whole is experiencing this same challenge and national policy is also

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[2] OPC Witness Mara indicates that he did indeed review the Company's responses to discovery by OPC and other intervenors, as well as discovery by Commission staff (OPC Mara Direct Testimony at 4).

focused upon assisting utilities in meeting this challenge. One need only listen to the news and read the newspapers to know that the grid will require significant investment in the coming years.[3] However, despite this need for grid investment, the importance of which is drawing national attention, OPC and FL Rising/ LULAC witnesses essentially argue the Company's investment is unsupported or too speculative; in effect, they assert that DEF should just come in for more frequent rate cases. Here, these witnesses appear to join in OPC Witness Dismukes' general criticism of "alternate rate regulation," and, in particular, the multi-year rate plan construct. These witnesses simply ignore the many benefits to multi-year rate plans, one being that it provides additional certainty around funding for future investments that are necessary to secure, modernize, and improve the electric grid. Further, while Witness Dismukes asserts based upon a limited survey of utilities other than DEF that there is no evidence of "alternative regulation" leading to reliability improvement, DEF's experience is directly to the contrary. My direct testimony (in Figures 1 and 2, reproduced below) addressed in detail the marked improvement in

[3] Niki Hazuda, *Research Seeks a Green Transformation of the Electric Grid*, VT NEWS (June 3, 2024), https://news.vt.edu/articles/2024/05/eng-ece-going-green-transforming-electric-grid.html; Ella Nilsen, *White House Announces Actions to Modernize America's Electrical Grid, Paving the Way for Clean Energy and Fewer Outages*, CNN (May 28, 2024, 11:07 PM), https://www.cnn.com/2024/05/28/climate/energy-grid-modernization-biden/index.html; Supratik Chaudhury, *Navigating the Future of Energy: How Utilities can Modernize their Grid Operations to Meet Increasing Energy Demands*, POWERMAG Blog (May 14, 2024), https://www.powermag.com/blog/navigating-the-future-of-energy-how-utilities-can-modernize-their-grid-operations-to-meet-increasing-energy-demands/; Stanley Porter et al, *Expanding and Modernizing the Power Grid for a Clean Energy Transition*, DELOITTE RESEARCH CENTER FOR ENERGY AND INDUSTRIALS (May 13, 2024), https://www2.deloitte.com/us/en/insights/industry/power-and-utilities/grid-modernization-and-expansion-critical-for-clean-energy-future.html ("A US$14.3 trillion shortfall in global grid investment is expected by 2050, with an annual global grid infrastructure (transmission and distribution lines) expansion gap of 2.08 million kilometers."); Susan Uthayakumar, *Modernizing the World's Power Grid*, GREENBIZ (Jan. 29, 2024), https://www.greenbiz.com/article/modernizing-worlds-power-grid; Grid Deployment Office, *What Does it Take to Modernize the U.S. Electric Grid?*, U.S. Dept. of Energy (Oct. 19, 2023), https://www.energy.gov/gdo/articles/what-does-it-take-modernize-us-electric-grid.

reliability of the Company's transmission system over the last six years, including two separate MYRP periods:

Figure 1

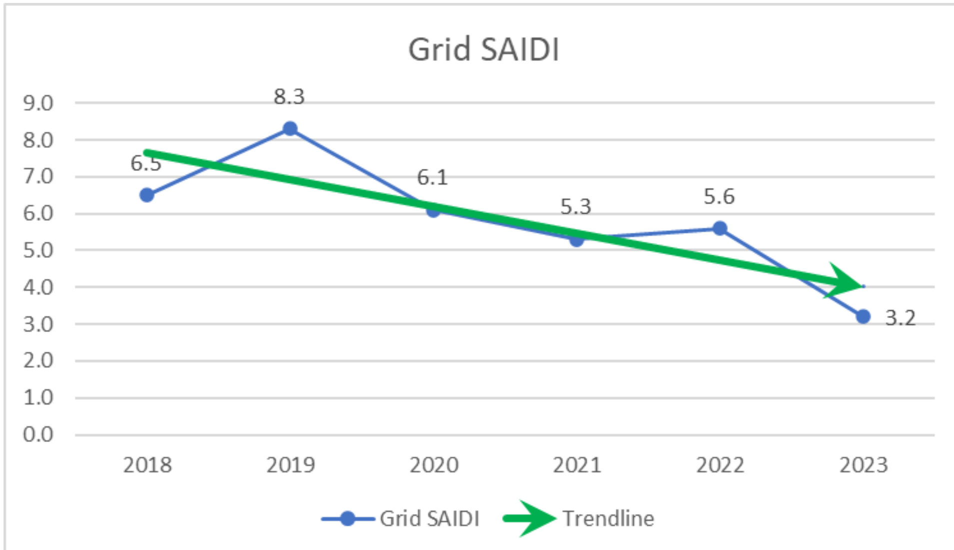
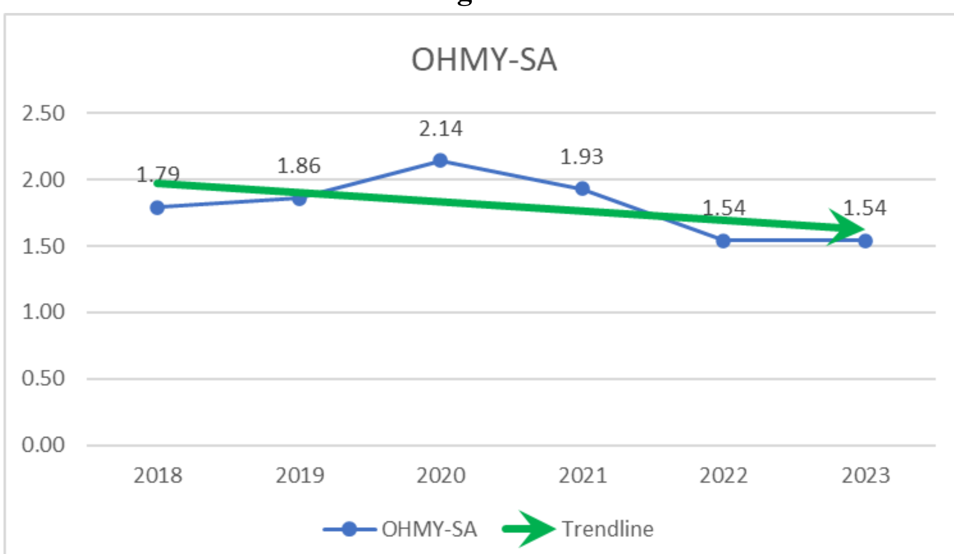


Figure 2



Evidently Witness Dismukes either was unaware of or simply ignored my direct testimony.

In response to these generalized criticisms by intervenor witnesses Mara, Schultz and Rábago, my testimony demonstrates both the need for the transmission investments and that DEF has significant experience planning for, developing projects, and adjusting its project development plans to changing circumstances where appropriate. DEF applies the enterprise-wide Project Management Center of Excellence ("PMCoE") standards as part of its robust project planning and development process. I explain that the 2026 and 2027 proposed transmission investment does not present a fundamentally different set of execution challenges than historic transmission capital projects successfully completed by the Company.

I also respond to intervenor recommendations concerning benefit cost analyses ("BCAs"). Many of the Company's rate base investments are made to comply with regulations and build for customer growth; thus, these investments are necessary for the Company to meet its obligation to provide reliable service and are not intended to generate cost savings and BCAs are not an appropriate use of resources where the Company is required to do the work.

That a specific BCA may be unnecessary does not of course mean that the Company is unaware of the need to be cost conscious in its investments. I am proud of the fact that during a period of rising cost and inflationary pressures, the Company's transmission O&M spending has stayed essentially flat and is below the O&M

benchmarks as shown in MFR Schedule C-37.[4] The Company has a track record of doing more with less, a record which intervenors choose to ignore.

We must continue to invest in the transmission system to maintain and operate the Company's transmission assets safely and reliably and to implement planned work to accommodate customer growth and other project initiatives. These expenditures are reasonable and critical to continue to reliably transmit power to our customers in a cost-effective manner while transforming the grid for a cleaner energy future.

II. <u>THE PROJECTED TRANSMISSION INVESTMENTS ARE NECESSARY</u>

Q. How do you respond to intervenor recommendations that the transmission capital costs for the 2026 and 2027 projected test years should not be included in this proceeding?[5]

A. First, as noted in my summary above, not a single intervenor specifically targeted or made any recommendations on any discrete transmission project. No distinct project was identified as unreasonable, imprudent, or unnecessary for DEF to implement to meet customer needs. Below I cover DEF transmission's track record (as shown in Figure 3 herein) of its ability to plan and responsibly execute on capital investments over time, while delivering improved reliability over the last several years to customers. As noted above, DEF Transmission responded to numerous discovery requests, including voluminous amounts of documentation supporting discrete projects within the transmission capital investment plan.

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[4] Scott Direct Testimony at 24.
[5] OPS Witness Mara Direct Testimony at 4.

The documentary evidence presented to intervenors in discovery supporting the need for and the reasonableness of the Company's transmission investments includes:

- Five years (2019-2023) of DEF's Transmission Additions Plan ("TAP") Books covering the long term ten year plan and all of the 2023 planning presentations for discrete projects;
- Transmission Project Management Process and Procedure for Estimating;
- Transaction Risk Committee Whitepapers, discussed in more detail below;
- Detailed cost information, including contractor estimates, purchase orders, and invoices, vendor contracts; and
- Project management documentation including Stage Gate (PMCoE project gating), project estimates, and project workbooks.

The evidence presented to intervenors in discovery demonstrates that DEF's plan includes real, well justified and needed discrete projects. No intervenor witness disputes this, so it was surprising to me that intervenor witnesses advocate disallowance and exclusion of costs associated with these projects.

Q. Although OPC Witness Mara does not criticize any specific project, he does state that the Company's funding needs for the 2026 and 2027 test years cannot be known with any degree of certainty.[6] How do you respond?

[6] OPC Mara Direct Testimony at 8.

A. Witness Mara's entire criticism of the Company's transmission investments centers on his assertion that transmission planning is fluid and subject to change.[7] I agree, but this is a feature, not a bug, of any prudently implemented planning process. While individual costs, project schedules, programs or projects may evolve, the investments planned are necessary to promote safe and reliable delivery of power. As shown below, DEF has demonstrated experience in executing transmission projects and has a wholistic and comprehensive approach to project planning and execution. The proposed level of transmission investment in this case is a thoughtfully developed plan resulting from a process described in detail in my direct testimony.

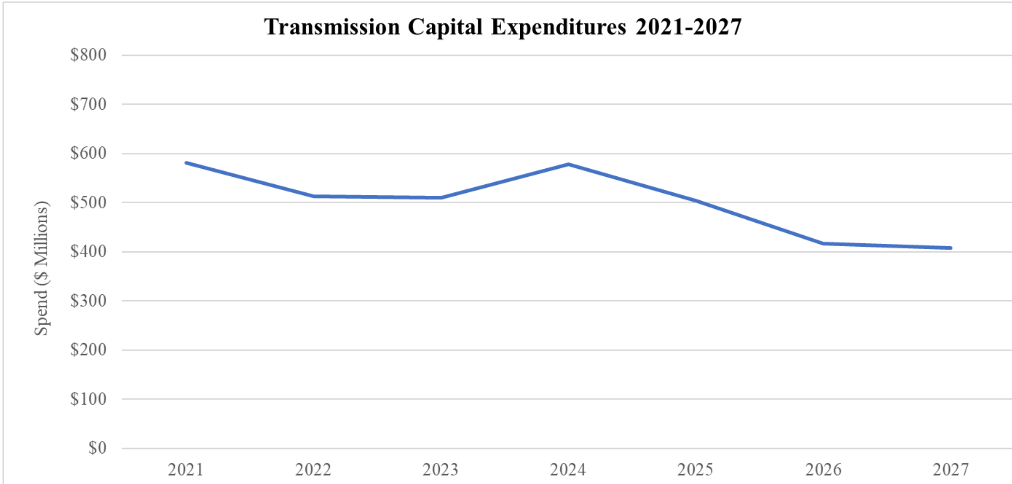
Moreover, the Company's track record in managing its transmission investments is not challenged by Witness Mara or any other intervenor. DEF's transmission investments 2021-2023 actuals as well as the 2024-2027 forecasts are shown in Table 1 and Figure 3 below:

Table 1

	2021	2022	2023	2024	2025	2026	2027
Capital Expenditures	$582.0M	$512.4M	$510.3M	$578.4M	$503.8M	$416.2M	$407.3M

Figure 3

[7] OPC Mara Direct Testimony at 7.



It is evident that over the past several years DEF has been successful in executing a consistent level of needed base rate investments on its transmission system and maintaining that pace of deployment is critical as we prepare for the grid of the future. As further discussed in Witness Lloyd's direct and rebuttal testimonies, reliance on reliable service has changed and today's grid is significantly different than five years ago. Distribution delivery of power to DEF's customers is not possible without transmission infrastructure, and continued upgrades and maintenance to meet capacity demands and customer growth. My direct testimony further discusses why the transmission capital investments are necessary, including, but not limited to, the increasingly stringent regulatory environment, particularly pertaining to system reliability, but also demonstrates that the Company has met these challenges. The investments the Company proposes to make during each of the test periods in this case are designed to allow DEF to continue to meet these challenges.

Transmission planning is inherently a long-term proposition. For example, most growth projects are executed over a period of six or more years, and many include materials with long lead times. Certainty around what capital investments can be funded promotes proper long-term planning for transmission investments and proper execution of those transmission projects.

Q. Do you agree with OPC Witness Dismukes that multi-year rate plans do not improve reliability?[8]

A. No. In fact, Witness Dismukes failed to include DEF as part of his alternative regulation and reliability assessment. His analysis consisted of ten utilities across the nation and found that none have led to any meaningful nor measurable ratepayer benefit or resulted in any sustainable nor distinctly measurable improvement of reliability. Witness Dismukes mostly assessed non-Florida utilities which are not comparable to our reliability territory and environment. He did analyze one Florida peer utility and surprisingly stated that they indeed improved SAIDI reliability. Similarly, to our peer, DEF has been operating under a multi-year rate plan over the past six years and as shared in my direct testimony,[9] DEF transmission system reliability has shown continuous improvement with 50% improvement in Grid SAIDI and 14% improvement in OHMY-SA.

[8] OPC Witness Dismukes Direct Testimony, Exhibit DED-7.
[9] Scott Direct Testimony at 12-13.

Q. Are there benefits to including the 2026 and 2027 capital costs in this proceeding?

A. Yes, absolutely. DEF Witnesses Olivier, O'Hara, and Newlin discuss these benefits in greater detail in their testimony including the impact on the Company's ability to fund its investments and access the capital markets on favorable terms and the benefit to customers of less frequent rate cases and more rate certainty. As stated by Witness Lloyd, having more certainty around funding for the 2026 and 2027 investments enables the organization to plan and execute projects more efficiently. For the transmission organization this means securing long lead materials, labor, and construction outages during the development and planning process which in turn allows for more certainty on project schedules and forecast spend plans.

III. DEF'S PROJECT DEVELOPMENT AND PLANNING PROCESS

Q. Please elaborate on your response above with respect to intervenor concerns regarding DEF's ability to plan for transmission spending needs in 2026 and 2027.

A. It is true that budgeting for and executing the transmission projects may present unforeseen challenges that require the Company, in some cases, to modify planned 2026 and 2027 projects in ways that maximize benefits for customers. This is the nature of the planning process. However, I do not agree with Witness Mara's testimony that implies that the 2026 and 2027 project planning and execution is a challenge that is fundamentally different than challenges inherent in the Company's historic capital project implementation, or that the Company is not well prepared to successfully plan for, develop and execute the projects. Importantly, no party has recommended disallowance or rejection of any specific transmission project based on specific project execution risks or challenges and have just made generalized recommendations regarding exclusion of the planned investment for 2026 and 2027.

Q. Please discuss DEF's experience with planning and executing transmission projects.

A. DEF has implemented transmission projects for decades, including investments to make the energy grid more reliable and resilient. Currently, DEF successfully completes numerous projects annually that span multiple years. The Company has standards in place to govern and manage projects efficiently and effectively across all the functional areas which are established by Duke Energy's PMCoE and applied consistently enterprise wide. The forward-looking ratemaking process does not change how we plan and manage projects, and the 2026-2027 projects that we will be executing are not fundamentally different than those the Company has effectively completed in the past. The Company has a successful track record at project execution, and we will continue to follow project management processes and procedures to govern and manage our projects for the benefit of DEF's customers.

Q. What is the Project Management Center of Excellence or PMCoE?

A. In 2012, Duke Energy launched the Project Management Center of Excellence to create a common framework for managing projects across the enterprise.

Q. Please comment on the ways in which the PMCOE provides guidance to the transmission and distribution organization in order to ensure prudent and effective grid project management.

A. Duke Energy's PMCoE owns the Enterprise Project Management Policy and Framework that provides guidance through the Project Management Policy & Standards. Such guidance includes providing project management training and support to the functional areas and their respective project teams in their efforts to achieve more successful project outcomes.

Q. Please provide examples of some of the project management practices developed by the PMCOE.

A. Examples of project management standards promulgated by the PMCoE include:

- **Scope Management** – Project Scope Management involves taking the business case or need for a particular project and continuously gathering detailed information about what is required to satisfy that need and includes any related assumptions and expectations from all stakeholders to define the scope of a project.
- **Cost & Contingency Management** – Project Cost & Contingency Management involves preparing and progressively updating cost estimates throughout the project lifecycle. The classification of a cost estimate is informed by the level of scope definition. Estimate classes are adopted from the Association for the Advancement of Cost Engineering. There are five

defined estimate classes, ranging from Class 5 estimates, which are based on the least amount of detail and are typically used for budgetary estimates, to Class 1 estimates which include the highest level of detail (typically when the project is completed). Contingency estimates are a part of overall project cost estimating and are critical to support the uncertainties that may occur throughout a particular project. The contingency amount typically includes a probabilistic assessment of project risks that may occur and uncertainties in the estimate, such as uncertain quantities depending on the level of engineering or design completeness.

- **Schedule Management** – Schedule Management involves preparing and progressively updating the project schedule throughout the project lifecycle. The project team initially develops a high-level schedule early in the project lifecycle and refines the schedule as more planning occurs. The timeline of completing a project is critical to the overall success of the project as developing and tracking a detailed schedule provides important information that improves decision-making for the team.
- **Risk Management** – Understanding the potential risks to a project is critical to achieving successful outcomes and helping to avoid major issues that impact various project components. Early identification of risks, followed by detailed analysis of both probability and impact throughout the project lifecycle, allow for risk mitigation earlier in the process and reduce exposure to those issues and impacts.

- **Resource Management** – Resource Management is the process of developing, acquiring, assigning, and releasing human resources over the course of the project lifecycle. As part of the project portfolio planning process, each functional area should periodically assess organizational readiness to staff projects.
- **Quality Management** – Quality Management involves the use of Quality Assurance and Quality Control processes to monitor and record results to achieve consistent quality performance.
- **Project Stage Gating** – Project Stage Gates are checkpoints used during a project's lifecycle to monitor progression and maturity of project scope, schedule, cost, sourcing, risk, organizational, technological, and regulatory elements before proceeding to the next stage of the project lifecycle.
- **Project Ranking** – Projects are evaluated to determine the project's rank through a risk-informed ranking process. Four project rankings exist beginning with White rank (smaller, low-risk projects), and progressing through Green (moderate risk), Brown (high risk), and Black (extreme risk). This process informs the scale of oversight and governance, as well as the amount of project documentation required to bring about successful achievement of project objectives.

Q. Given the PMCoE framework, do you agree with Witness Mara's assessment that the fluid nature of the transmission plans makes them unreliable for estimating rate case capital expenditures?[10]

A. No. Witness Mara based his assessment on his attempted analysis of the 2021 and 2023 Transmission Addition Plans ("TAP"). In his testimony, Witness Mara does not supply any detail regarding this comparison (for example, he does not indicate which projects he is comparing), which is entirely in keeping with the very high level criticism he makes in his testimony as a whole.[11] But his criticism is in any event unfounded.

The purpose of the TAP is to communicate the needs of the transmission system to provide reliable transmission service to the Company's customers, meet expected growth, and remain in compliance with North American Electric Reliability Corporation ("NERC"), FRCC, and FERC regulations. This plan, which is updated each calendar year, is intended to develop a transmission system that will operate reliably over a broad spectrum of system conditions and following a wide range of probable contingencies.[12] As described in my direct testimony, DEF Transmission Planning performs an annual evaluation to demonstrate the transmission system's compliance with these standards over a ten-year planning horizon and identifies

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[10] OPC Mara Direct Testimony at 7, ll. 21-23.

[11] Witness Mara's workpapers supply additional detail, but that detail does not match what he has in his testimony. As just one example, while Witness Mara's testimony (page 7) states that the 2021 TAP "had 22 projects projected to be completed between 2023 and 2026," his workpapers indicate that the number of projects meeting this criterion exceeds 50. OPCs Response to DEF's 1st POD (Nos. 3). Such sloppiness aside, Witness Mara's analysis is substantively flawed, as I demonstrate below.

[12] NERC Reliability Standard TPL-001.

deviation from these standards.[13] The deviations identified as a result of that evaluation are included as projects in the TAP and prioritized based on the level of risk. The projects with the greatest need (such as but not limited to risks involving grid reliability, load, stability, compliance, environmental, etc.) are given the highest priority and those with established operating procedures are given a lower priority. Naturally, the higher priority projects will be worked in advance of the lower priority projects.

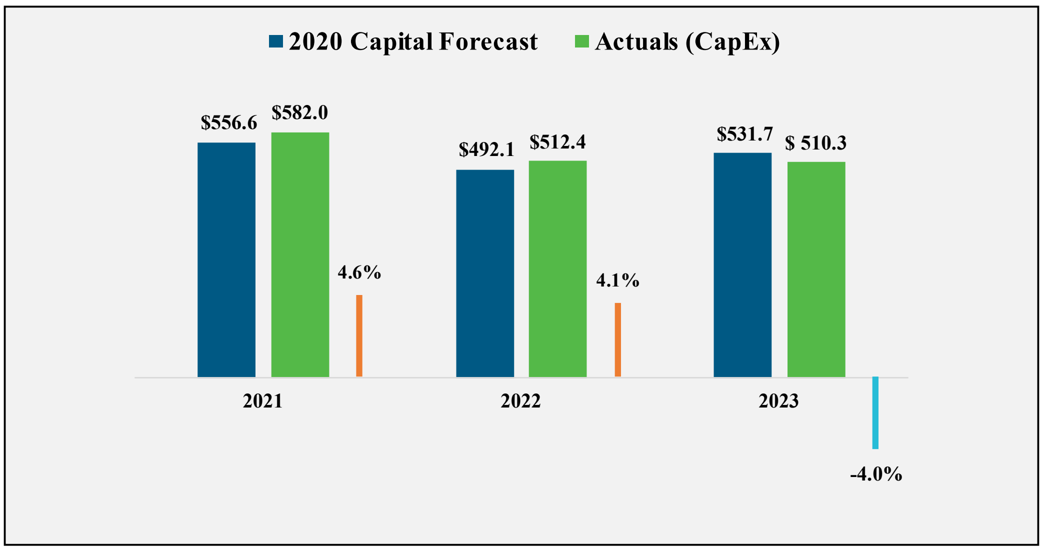
In addition, as the identified projects are being scoped, engineered, and implemented, DEF often identifies situations that require a change to project schedules. Examples of these situations could include outage constraints on the system, routing alternatives, material lead times and/or coordination with customers and community partners.

As is evident from this description, the TAP process is inherently dynamic and subject to modification as a result of changed circumstances. Indeed, if DEF does *not* respond to changed circumstances, the end result could potentially be deemed imprudent—after all, if priorities change, then DEF's response must make a commensurate shift in approach in order to continue to provide reliable transmission services to its customers. But as I describe further below, the inherently dynamic nature of the process does not mean that changes in the specifics of outer-year planning invalidate the plan itself. To the contrary, as demonstrated

[13] Scott Direct Testimony at 20.

above, transmission spending has remained generally consistent over the years. Further, as shown in Figure 4 below, based on the 2020 Capital Forecast, DEF's actual transmission capital investment expenditures are within five percent of forecast:

Figure 4



The alignment between forecast and actual expenditures demonstrates that even as individual projects may shift as a result of the re-prioritization process I describe above, DEF's forecast expenditures as a whole are actually realized generally in line with its projections. Witness Mara's criticism that DEF's forecasts for 2026 and 2027 are too unreliable for ratemaking purposes is without any foundation.

Q. Please describe how the transmission system is impacted if a project identified in the TAP is delayed.

A. When a project identified in the TAP needs an adjusted completion date for any reason, the Company will implement operating procedures which are intended to alleviate thermal loading, voltage deviations, and stability issues in real-time. Operating Procedures are effective short-term solutions for low-risk and emerging violations and can serve as interim solutions until permanent modifications to the transmission system are completed. I discuss later in my testimony the impact of DEF's failure to comply with NERC Reliability Standard TPL-001.

Q. Please elaborate further on what an operating procedure is and when DEF uses them?

A. Operating procedures are one of the tools DEF uses to ensure compliance with reliability standards. Operating procedures are implemented by the Energy Control Center System Operators to separate portions of the transmission system to prevent overloads or other conditions that could threaten the reliability of the grid. These procedures can involve dropping customer load (i.e., disconnecting customers), separating networked sections of the grid (i.e., radializing or single-sourcing load), or separating generation resources from the grid. Operating procedures, when implemented, inherently reduce the quality of electric service to customers because they either directly result in an outage, cause a reduction in redundancy, or require generation reductions in one area of the system that requires initiation of higher-cost generation in another.

Q. If a transmission project is delayed, what happens to the forecasted dollars that were allocated for that project and included in the rate case capital expenditures?

A. When a project is delayed, the forecasted dollars that were allocated for that project are redirected to another previously identified project that will likewise provide reliable transmission service to the Company's customers, meet expected growth, and comply with mandatory NERC, FRCC, and FERC reliability standards. DEF must have the ability to manage its business and adjust based on the current system needs. To demonstrate, transmission planning identified a project that was needed to support new third-party generation in north central Florida. This solution would not only solve for the integration of new generation but would also solve other system constraints that were showing up in TPL-001 planning studies in future years. When delays to the new generation coming online were experienced, the original project, that was being funded by the third-party generator was cancelled, and the forecasted dollars were allocated to two DEF funded transmission projects that would alleviate the same reliability issues that were showing in the TPL-001 planning studies.

In the final analysis, while, as Witness Mara points out, individual projects can be cancelled, modified, or delayed, DEF must continually make investments in its transmission system to maintain and enhance its reliability in the face of changing regulatory requirements. Witness Mara does not dispute the need for the overall level of investment the Company has proposed, or the fact that the need is largely driven by growth in DEF's customer load and more stringent reliability standards to adequately serve that growth.

IV. BENEFIT COST ANALYSIS AND ALTERNATIVE ANALYSIS

Q. Witness Schultz and Witness Rábago raise concerns regarding benefit cost analyses in their testimonies. Please summarize their testimony.

A. While neither Witness Schultz nor Witness Rábago points to a specific transmission project as unreasonable or unjustified, Witness Schultz believes a "cost/benefit analysis should be required and some form of identification of specific cost savings should be identifiable in order to justify the project(s)."[14] Similarly Witness Rábago asserts DEF has not performed a BCA or evaluated alternatives to its projects.[15]

Q. What is your general response to these criticisms?

A. The statements of Witnesses Schultz and Rábago are unfounded. Formal cost/benefit analyses may have their place but are simply not necessary in every instance as a general, overarching rule. They are certainly not necessary, for example, when a project is implemented to address a regulatory requirement, which is the driver behind many of the Company's transmission investments proposed in this case. The transmission capital projects that are discussed in my direct testimony, exhibits, and in responses to interrogatories and production of document requests are necessary to operate, maintain, and improve the reliability of the transmission system. Continued maintenance and improvement of transmission

[14] OPC Witness Schultz Direct Testimony at 20, ll. 12-13.
[15] FL Rising/LULAC Witness Rábago Direct Testimony at 35.

system reliability is the responsibility of all transmission owners, and is expected and needed from a societal, safety, and national security perspective. This responsibility to reliability cannot always be easily quantified via conventional benefit/cost analyses, but this does not mean that we "blindly authorize hundreds of millions of dollars in project capital expenditures in total ignorance of the actual benefits to be gained" in implementing transmission projects, as Witness Schultz claims on pages 19 and 20 of his testimony, or that cost savings in implementing transmission projects cannot be realized via other means of analysis or by the Company's robust project management expertise, which I describe in detail above.

DEF's customers expect their electrical power to remain on at their specific metering points. They also expect supermarkets, hospitals, traffic lights, office buildings, schools, and the like to be consistently served, and demand for all of these is ever increasing. This increasing demand cannot simply be met by leaving the transmission system in its existing state. And while many customers cannot assign a specific monetary value to receiving consistent electrical service (which impedes the calculation of conventional benefit/cost analyses), they clearly depend upon it for their well-being and life, and they are right in expecting it to be consistently and reliably provided.

Additionally, a primary driver for many of DEF's transmission projects is ensuring compliance with the mandatory and enforceable NERC Reliability Standards, particularly the NERC TPL-001 Reliability Standard. Failure to comply with

NERC Reliability Standards can result in fines of up to $1 million dollars per day, per violation. While it is true that the delay or cancellation of any one given transmission capital project in the growth category may not result in an immediate TPL-001 violation, failure to implement transmission capital projects passes planning challenges on to the system operators as mentioned earlier in my testimony. This challenge then, if left unaddressed, eventually results in violations of additional NERC Reliability Standards in the operations horizon, and potentially results in outages, regional transmission system events, or even blackouts. Occurrences of events such as these, although uncommon, would not merely trigger violations of NERC Reliability Standards but would undoubtedly also entail direct regulatory involvement and/or sanction at the state and federal levels. Avoidance of such unacceptable situations, although difficult to quantify, is for the benefit of DEF's customers.

Q. Do you agree with Witness Rábago's specific recommendations regarding BCAs?

A. No. Mr. Rábago recommends that the Commission eliminate growth, expansion and major project spending for transmission until a BCA is completed, and require a BCA to support all requests for capital spending projects for $1 million or more.[16] This recommendation is absurd due to the sheer number of projects that would be impacted by his recommendation, and I believe customers would not find value in the additional costs and time delays to conduct BCAs on most transmission system

[16] FL Rising/LULAC Witness Rábago Direct Testimony at 37.

capital investments. As further discussed previously herein, and in my direct testimony, DEF takes a methodical approach to selecting and planning capital transmission investments and has an historically proven ability to execute a long-range capital plan.

Q. How many transmission projects would be impacted if the Commission were to accept Mr. Rábago's recommendation for a BCA for all projects over $1 million?

A. DEF transmission included in this filing approximately 404 discrete transmission projects with capital spend between 2023-2027 of those, a minimum of 210 projects have a total capital spend of more than $1 million. The majority of these DEF Transmission projects are either reliability projects for aging, worn and obsolete equipment or regulatory compliance projects. Additionally, almost 19% of the DEF transmission portfolio in this filing with capital spend between 2023-2027 is programmatic work, such as but not limited to transformer replacements, relay replacements, switch replacements, and failed/damaged equipment where assets have reached their end of life and must be replaced to continue to provide customers reliable service and meet DEF's requirements to serve. OPC Witness Schultz testifies that "Vermont regulators require companies to include a cost/benefit analysis to justify [a] capital project,"[17] but fails to mention the exemptions to the CBA requirement for projects such as those 1) designated to address an immediate safety hazard, 2) are an in-kind replacement of damaged equipment or equipment

[17] OPC Schultz Direct Testimony at 20, ll. 14-15.

no longer functionally useful for its intended purpose, or 3) projects intended to address a regulatory requirement or a reliability project and viable alternatives are not reasonably available for the project.[18]

As discussed in more detail in DEF Witness Brian Lloyd's rebuttal testimony, I agree that the formal BCA requirement as recommended by Witnesses Schultz and Rábago, would add additional time and expense to the project and would not affect the outcome and the need for the project to move forward.

Q. Does DEF perform alternative analysis for its transmission projects?

A. Yes. The DEF Transmission team reviews alternatives for projects within all our transmission investment categories. For example, if DEF finds a transmission line that is projected to be overloaded due to an increased power flow in the system, DEF will review options to determine a cost-effective and long-term reliable solution. This consists of performing a load flow study to review the existing load conditions and what is expected for that line and the connecting transmission facilities in the future. DEF is required by NERC and FRCC standards to mitigate/eliminate the risk of unserved customer load. DEF then utilizes that information to review all available and feasible options to resolve the loading

[18] Although he did not specify this in his testimony, presumably Witness Schultz is referring to the Memorandum of Understanding Between Green Mountain Power and the Vermont Department of Public Service ("MOU"), a settlement approved by the Vermont Public Service Commission in Case No. 17-3112-INV, dated November 9, 2017. *See* Exhibit 2, Section III to the MOU. Further, I note the CBA requirement is only applicable to "Major Projects" over $2 million dollars. Finally, the MOU is the result of a negotiated settlement which states that the parties "made specific compromises to reach the agreements reflected in this MOU (Para. 29) and "this MOU represents a resolution of all contested issues between the MOU parties in this case." (Para. 30).

concern. These options can include upgrading the overloaded facilities, building net new facilities, and implementing generation and/or storage solutions, among other options. In addition, DEF collaborates with customers (cities, communities, counties) to understand ongoing or future customer plans.

Q. Are alternative analyses noted as part of the Transaction Risk Committee ("TRC") Whitepapers which were provided to intervenors through discovery?

A. Yes. The TRC reviews capital projects that require approval by the President and Chief Executive Officer and consists of senior management committee members of Duke Energy Corporation. In reviewing the project, the TRC is provided with information such as an executive summary of the transaction or project, description, analysis including alternatives and financial, risks, and assessment of adherence to corporate governance policies, such as the aforementioned PMCoE. DEF Transmission provided TRC Whitepapers for transmission projects which typically include the alternative analyses completed when assessing the need for the project and seeking appropriate levels of management approval.[19]

Q. Has the Company provided sufficient support justifying the benefits of the transmission projects included?

A. Yes. Above I covered the details around DEF transmission's responses to discovery in this case. A large percentage of the documents produced included details justifying the benefits and needs of the transmission system capital investments.

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[19] DEF Resp. OPC POD 1-22; DEF Supplemental Resp. OPC POD 1-22; DEF Resp. LULAC POD 1-4.

This includes project-specific presentations, transmission addition planning presentations, transaction risk committee papers, risk documentation, capital investment program explanations, capital investment long-range plans and other documents. This wealth of documentation supports the needed investments for our customers to continue to receive reliable service. Intervenors simply do not argue that any specific investment, investment category, or detailed project is unnecessary to continue such reliable service. I find that their inability to articulate why these investments are not needed constitutes an endorsement that they *are* needed.

Q. Does the Company track cost savings related to its transmission investments?

A. No. There is not a specific tracking mechanism to quantify transmission cost savings. As stated by Company Witness Lloyd, the driver for base rate investment is addressing growth and system reliability and while the Company strives to be a good steward of customer funds, these investments are not made for the purpose of generating cost savings. When estimating and executing projects, transmission designs solutions that would offer efficiency in the construction phase (i.e. combining work scopes where appropriate) and utilizes various contract strategies to ensure we are getting the best cost for the scope of work performed. It is difficult to quantify these avoided costs; however, any savings that do result from the Company's investments will already be reflected in rates by virtue of the fact that those costs will no longer be incurred.

V. CONCLUSION

Q. Mr. Scott, your rebuttal testimony covers a lot of ground, but did you respond to every contention regarding the Company's proposed plan in your rebuttal?

A. No. Intervenor testimony on these topics involved many pages of testimony and I could not reasonably respond to every single statement or assertion, and therefore, I focused on the issues that I thought were most important in my rebuttal testimony. As a result, my silence on any particular assertion in intervenor testimony should not be read as agreement with or consent to that assertion. In addition, the Company reserves the right to file supplemental rebuttal testimony to address any new issues raised by intervenors in the event they file supplemental direct testimony or provide discovery responses after the deadline for rebuttal testimony that impacts the Company's rebuttal responses.

Q. Does this conclude your rebuttal testimony?

A. Yes.