

STATE OF SOUTH CAROLINA
BEFORE THE
PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

In Re:	)	
	)	
Dominion Energy South Carolina,	)	Docket No. 2026-9-E
Inc.'s 2026 Integrated Resource Plan	)	
(IRP)	)	
	)	

DIRECT TESTIMONY OF LUCY METZ

ON BEHALF OF SIERRA CLUB

PUBLIC VERSION

August 26, 2026

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1. INTRODUCTION AND PURPOSE OF TESTIMONY

1 **Q Please state your name and occupation.**

2 **A**My name is Lucy Metz. I am a Senior Associate at Synapse Energy Economics,
3 Inc. (“Synapse”). My business address is 485 Massachusetts Avenue, Suite 3,
4 Cambridge, Massachusetts 02139.

5 **Q Please describe Synapse Energy Economics.**

6 **A**Synapse is a research and consulting firm specializing in energy and
7 environmental issues, including electric generation, transmission and distribution
8 system reliability, ratemaking and rate design, electric industry restructuring and
9 market power, electricity market prices, stranded costs, efficiency, renewable
10 energy, future of gas utilities planning, environmental quality, and nuclear power.

11 Synapse’s clients include state consumer advocates, public utilities commission
12 staff, attorneys general, environmental organizations, federal government
13 agencies, and utilities.

14 **Q Please summarize your work experience and educational background.**

15 **A**At Synapse, I conduct analysis and write publications on a variety of topics
16 related to power plant economics and integrated resource planning. I regularly
17 support the development of comments and testimony in litigated dockets across
18 the country, including performing analyses of electric power systems using
19 industry-standard models such as EnCompass and spreadsheet tools. I have
20 sponsored testimony before the public service commissions of Arkansas, Georgia,
21 Kansas, Kentucky, North Carolina, South Carolina, and Wisconsin.

1 I hold a Bachelor of Science in Engineering Science from Smith College. A copy
2 of my current resume is attached as Exhibit LM-1.

3 **Q On whose behalf are you testifying in this case?**

4 **A** I am testifying on behalf of Sierra Club.

5 **Q Have you previously testified before the Public Service Commission of South**
6 **Carolina (“Commission”)?**

7 **A** Yes. I submitted testimony in Docket No. 2025-323-E, the Joint Application of
8 South Carolina Public Service Authority (“Santee Cooper”) and Dominion
9 Energy South Carolina (“DESC” or “Company”) for a Certificate of
10 Environmental Compatibility and Public Convenience and Necessity
11 (“CECPCN”) for the Canadys combined-cycle (“CC”) plant.

12 **Q What is the purpose of your testimony in this proceeding?**

13 **A** In my testimony, I explain the benefits of DESC committing to retirement dates
14 for the Wateree Station (“Wateree”) and Williams Station (“Williams”) coal-fired
15 power plants. I also recommend that DESC study whether it would be economic
16 to retire solid-fuel burning equipment at Cope Station (“Cope”) and convert the
17 plant fully to gas. Next, I review DESC’s load forecast and assess whether its
18 projected level of load growth, including from prospective large-load customers,
19 is reasonable and supported by signed contracts. Finally, I recommend
20 improvements to DESC’s integrated resource plan (“IRP”) modeling assumptions
21 related to battery storage, renewable energy resources, and demand-side
22 management (“DSM”) resources.

1 **Q How is your testimony structured?**

2 **A In Section 2, I summarize my findings and recommendations for the Commission.**

3 In Section 3, I describe the Company's requests in this docket related to its 2026
4 IRP.

5 In Section 4, I demonstrate the benefits of DESC firmly committing to its planned
6 retirement dates for Wateree and Williams. I also recommend that DESC study
7 whether it would be economic to retire solid-fuel burning equipment at Cope.

8 In Section 5, I assess whether DESC's base load forecast is reasonable and
9 supported by data, and I review DESC's process for developing its High Load
10 forecast.

11 In Section 6, I recommend improvements that DESC should make to its modeling
12 framework to more accurately represent the value of renewables and battery
13 storage. I also recommend that DESC increase the ambition of its planned DSM
14 deployment.

15 **Q What documents do you rely upon for your analysis, findings, and**
16 **observations?**

17 **A My analysis relies primarily upon the workpapers, exhibits, and discovery**
18 responses provided by the Company, as well as publicly available data.

1 **Q** Are you sponsoring any exhibits?

2 **A** Yes. I am sponsoring the following exhibits:

Exhibit	Description of Exhibit	Confidentiality
LM-1	Resume of Lucy Metz	Public
LM-2	DESC Response to Sierra Club Data Request No. 2-05	Public
LM-3	DESC Response to ORS Data Request No. 2-05	Public
LM-4	DESC Response to Sierra Club Data Request No. 1-07 (provided in Docket No. 2025-9-E)	Public
LM-5	DESC Response to Sierra Club Data Request No. 2-03	Public
LM-6	DESC Response to ORS Data Request No. 1-32	Public
LM-7	DESC Response to Sierra Club Data Request No. 1-08 (provided in Docket No. 2025-9-E)	Public
LM-8	DESC Response to Sierra Club Data Request No. 1-15	Public
LM-9	DESC Response to Sierra Club Data Request No. 2-01	Public
LM-10	DESC Confidential Response to ORS Data Request No. 1-25, “ORS 1-25 Build Limits and Constraints CONFIDENTIAL.xlsx.”	Confidential
LM-11	DESC Response to Sierra Club Data Request No. 1-12	Public
LM-12	DESC Response to Sierra Club Data Request No. 2-13	Public
LM-13	DESC Response to Sierra Club Data Request No. 2-02	Public
LM-14	DESC Response to Sierra Club Data Request No. 2-12, “Sierra Club r1.xlsx.”	Public
LM-15	DESC Response to ORS Data Request No. 1-03	Public

Exhibit	Description of Exhibit	Confidentiality
LM-16	DESC Response to ORS Data Request No. 1-02, "ORS 2026-9-E 1-2e.xlsx."	Public
LM-17	DESC Response to Sierra Club Data Request No. 1-06	Public
LM-18	DESC Response to ORS Data Request No. 2-10	Public
LM-19	Corrected DESC Response to ORS Data Request No. 3-13	Public
LM-20	DESC Response to Sierra Club Data Request No. 3-05	Public
LM-21	DESC Response to Sierra Club Data Request No. 2-10	Public
LM-22	DESC Response to Sierra Club Data Request No. 2-15	Public
LM-23	DESC Response to ORS Data Request No. 2-14	Public
LM-24	DESC Response to ORS Data Request No. 3-07	Public
LM-25	DESC Response to Sierra Club Data Request No. 1-16	Public

1 **2. FINDINGS AND RECOMMENDATIONS**

2 **Q Please summarize your findings.**

3 **A My primary findings are the following:**

- 4 1. Based on DESC's own load forecast and near-term planned resource
- 5 additions, DESC will have enough capacity to meet its load forecast even
- 6 if it retires Wateree and Williams by their currently scheduled retirement
- 7 dates of year-end 2032 and 2034, respectively.
- 8 a. If DESC keeps these plants online beyond 2032 and 2034, the
- 9 Company will have a reserve margin of over 40 percent—more

- 1 than twice its target reserve margin—which would impose
2 unnecessary costs on ratepayers.
- 3 2. DESC’s PLEXOS modeling shows that paired solar and storage is the
4 most cost-effective resource to serve incremental near-term capacity
5 needs. In the Preferred Portfolio, the model economically selects 600
6 megawatts (“MW”) of paired solar and storage between 2031 and 2035,
7 which is the only near-term resource addition besides the Canadys CC.
- 8 3. If DESC delays the retirement of Wateree and/or Williams beyond year-
9 end 2034, it will need to spend at least \$100 million per plant (\$200
10 million total) on experimental zero liquid discharge (“ZLD”) systems to
11 comply with the 2024 federal Effluent Limitations Guidelines (“ELG”)
12 Rule.
- 13 4. If DESC continues to operate Wateree and Williams, it will impose other
14 costs and risks on ratepayers that DESC did not fully capture in its
15 modeling. These include the following:
- 16 a. An escalation in sustaining capital expenditures based on the
17 advanced age of the plants, coupled with the risk of lengthy plant
18 outages as replacement parts for coal plants become more difficult
19 to obtain.
- 20 b. Future environmental compliance costs at the plants, including but
21 not limited to the ZLD systems’ capital costs (which DESC
22 included in its PLEXOS modeling) and fixed operations and
23 maintenance (“FOM”) costs (which DESC omitted from its
24 modeling).
- 25 c. Fuel supply risk, including the potential for higher costs and
26 reduced coal availability at the plants going forward.
- 27 5. DESC did not properly evaluate the potential benefits to ratepayers of
28 converting Cope to operate on gas, to determine whether this would be

1 more economic than continuing to operate the plant with dual fuels. Proper
2 analysis includes: (1) calculation of the cost savings associated with
3 retiring solid-fuel-burning equipment at Cope, including all relevant cost
4 categories (ongoing capital expenditures, fixed and variable operations
5 and maintenance costs, and fuel costs); and (2) evaluation of alternatives
6 for firming Cope’s capacity if the plant operates entirely on gas, including
7 the potential to site battery storage at the plant to maintain reliability.

8 6. In its base load forecast, the Company projects its load will grow at a
9 compound annual growth rate of 1.7 percent over the next 10 years (2026–
10 2035). This represents a change from the past 10 years, over which DESC
11 experienced no peak load growth.

12 a. DESC projects 859 MW of winter peak load growth between now
13 and 2035, of which only 300 MW is from new large-load
14 customers. DESC has not signed any new contracts with large-load
15 customers since January 2024.

16 b. The remainder of DESC’s projected winter peak load growth is
17 from base load growth in the residential, commercial, and
18 industrial sectors; building electrification; and electric vehicle
19 (“EV”) adoption.

20 7. Shortcomings in DESC’s modeling likely prevented it from capturing the
21 full potential to add economic renewables, battery storage, and DSM to its
22 system. These include the following:

23 a. DESC used a static and restrictive solar build limit of 300 MW per
24 year that constrained solar builds in seven to 22 years out of the [REDACTED]
25 [REDACTED] during which the model had the ability to add solar [REDACTED]
26 [REDACTED], depending on the case. By using a static build limit
27 throughout the modeling period, DESC failed to account for future
28 expansion of the solar market in South Carolina.

- 1 b. DESC used a restrictive cumulative build limit for four-hour
2 battery storage that was binding in seven out of the 14 cases that it
3 modeled.
- 4 c. Although DESC’s High DSM sensitivity shows revenue
5 requirement savings relative to the Medium DSM case, DESC did
6 not incorporate higher levels of DSM in its Preferred Portfolio.

7 **Q Please summarize your recommendations.**

8 **A Based on my findings, I offer the following recommendations:**

- 9 1. DESC should firmly commit to retire Wateree as soon as the Canadys CC
10 comes online and Williams no later than year-end 2034, and it should
11 proactively procure replacement capacity (primarily paired solar and
12 storage) as needed to enable these retirements.
- 13 2. The Commission should require DESC to produce a study that quantifies
14 how much it spends each year to maintain solid-fuel-burning equipment at
15 Cope and whether it would be economic to convert the plant to operate on
16 gas only. As part of this study, DESC should evaluate alternatives for
17 firming the capacity at Cope if the plant converts entirely to gas, such as
18 procuring firm gas transport or siting battery storage at Cope.
- 19 3. DESC should outline an action plan to facilitate the electrification
20 measures that it anticipates will contribute to its load forecast going
21 forward.
- 22 4. The Company should continue its current practice of including only large-
23 load customers with signed contracts for service in its base load forecast.
- 24 5. DESC should develop a large-load tariff that commits large-load
25 customers to paying their contribution to embedded costs plus their full
26 incremental cost of service before assets are built to serve them. Going

- 1 forward, DESC should only offer service to new large-load customers on
2 this tariff.
- 3 6. DESC should increase the solar build limit in its PLEXOS modeling to
4 represent the anticipated expansion of the South Carolina solar market
5 over time.
- 6 7. DESC should also allow PLEXOS to economically select how much four-
7 hour storage to add in each build plan, instead of placing hard limits based
8 on effective load carrying capability (“ELCC”) values.
- 9 8. DESC should, at minimum, pursue the High DSM trajectory that its own
10 modeling showed to be cost-effective, and it should explore more
11 ambitious trajectories for expanding DSM in its service area.

12 **3. SUMMARY OF DESC’S PROPOSAL**

13 **Q What is DESC requesting in this docket?**

14 **A** In this docket, DESC requests approval of its 2026 IRP, which would include a
15 finding from the Commission that the IRP is the most reasonable and prudent
16 means of meeting DESC’s energy and capacity needs at the time it reviewed the
17 plan.¹ In making this determination, the Commission will balance a number of
18 factors, including resource adequacy, consumer affordability, compliance with
19 state and federal regulations, reliability, commodity price risk, and diversity of
20 generation supply.²

21 Figure 1 shows how DESC plans to meet its long-term capacity needs in the
22 Preferred Portfolio from the 2026 IRP. In addition to the near-term addition of the

¹ S.C. Code Ann. § 58-37-40(C)(2) (Supp. 2023).

² *Id.*

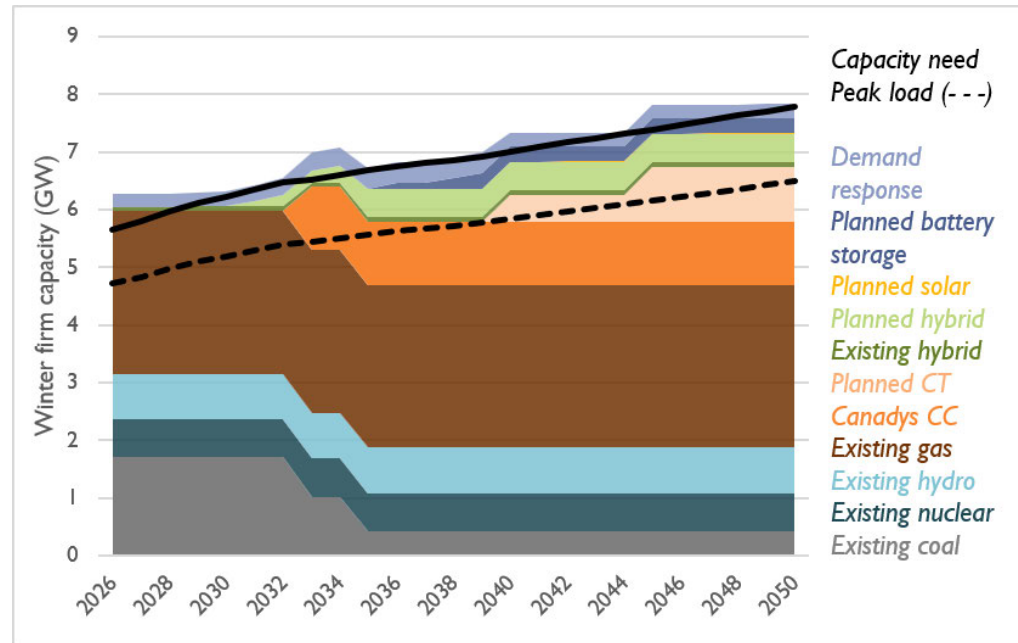
1 Canadys CC plant in mid-2033,³ resource additions in the Preferred Portfolio
2 include 600 MW of hybrid solar and battery storage between 2031 and 2035, 300
3 MW of standalone battery storage between 2036 and 2039, 2,400 MW of
4 standalone solar in the 2040s, and 946 MW of gas combustion turbines (“CTs”) in
5 the 2040s.⁴ DESC also projects that it will obtain between 216 and 361 MW of
6 firm capacity per year from demand response between 2026 and 2050.⁵

³ *Joint Application of South Carolina Public Service Authority and Dominion Energy South Carolina, Inc. for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of an Advanced Class Combined Cycle Generating Plant and Associated Facilities in Colleton County, South Carolina, Pursuant to S.C. Code Ann. § 58-33- 10 et. seq.*, Public Service Commission of South Carolina, Docket No. 2025-323-E, Joint Application for Certificate of Environmental Compatibility and Public Convenience at 13 (Dec. 15, 2025), available at: <https://dms.psc.sc.gov/Attachments/Matter/855a4689-2e14-44eb-9e54-f0c0281f6ea9> [hereinafter “Canady CEPCN Application”].

⁴ *Dominion Energy South Carolina, Inc.’s 2026 Integrated Resource Plan*, Public Service Commission of South Carolina, Docket No. 2026-9-E, Dominion Energy South Carolina, Inc. 2026 Integrated Resource Plan at 85 (Mar. 31, 2026), available at: <https://dms.psc.sc.gov/Attachments/Matter/d0102f97-ca7f-4cd3-a26c-b8ca087bd4fb> [hereinafter “DESC 2026 IRP”].

⁵ DESC Response to ORS Data Request No. 1-08, “2026 IRP Load and Resource Balance.xlsx.” The Company’s response to ORS Data Request No. 1-08 and the associated attachment contain voluminous spreadsheet data and can be provided to the Commission and properly-authorized parties upon request.

Figure 1. DESC capacity need and resource additions in the Preferred Portfolio (Reference Build Plan)



Sources: DESC Response to ORS Data Request No. 1-08, “2026 IRP Load and Resource Balance.xlsx.” See *supra* note 5.

Q What are DESC’s plans for its remaining coal plants in the Preferred Portfolio?

A DESC owns three coal-burning power plants: Wateree, Williams, and Cope (Table 1). Wateree and Williams are currently 56 and 53 years old, respectively.⁶ In the Preferred Portfolio, DESC models Wateree retiring at year-end 2032 and Williams retiring at year-end 2034.⁷ The Company has not firmly committed to

⁶ DESC 2026 IRP at 32.

⁷ Because DESC conducts its capacity expansion modeling in PLEXOS at an annual level, it modeled the Canadys CC with an online date of January 1, 2033 and Wateree with a retirement date of December 31, 2032. See DESC 2026 IRP at 10, 17. In reality, the Canadys CC is scheduled to come online midway through 2033, and DESC should retire Wateree as soon as this replacement capacity is available.

these retirement dates (*see* Section 4).⁸ DESC models the Cope power plant, which fires on both coal and gas, continuing to operate through the end of the modeling horizon.⁹

Table 1. Summary of DESC's coal-fired power plants

Plant	Winter accredited capacity (MW)	Fuel	Online year	Current age	Retirement year in Reference Build Plan
Wateree	684	Coal	1970	56	Year-end 2032
Williams	600	Coal	1973	53	Year-end 2034
Cope	415	Dual fuel (coal and gas)	1996	30	None

Sources: DESC 2026 IRP at 32, 43.

Q What scenarios did DESC model to select the Preferred Portfolio?

A As part of its IRP, DESC modeled nine core cases. The core cases consist of three core build plans, which DESC created by optimizing builds under its Reference, High Fossil Fuel Prices, and Medium Carbon Cost market scenarios. DESC then tested each core build plan under the other two market scenarios, arriving at nine core cases in total.¹⁰

In addition to the core cases, DESC modeled five sensitivity cases and three supplemental cases.¹¹ These cases test different levels of near-term load growth, energy conservation, DSM, regulation, and delayed coal retirements, which I discuss in more detail below.¹² Finally, DESC modeled nine alternative core cases

⁸ DESC 2026 IRP at 10.

⁹ *Id.* at 32.

¹⁰ *Id.* at 9–11.

¹¹ *Id.*

¹² *Id.*

1 that are parallel to the core cases, but assume that the federal Clean Air Act
2 Section 111 Greenhouse Gas Rules remain in place.¹³

3 **4. DESC SHOULD FIRMLY COMMIT TO RETIREMENT DATES FOR WATEREE AND**
4 **WILLIAMS AND SHOULD STUDY THE ECONOMICS OF CONVERTING COPE TO GAS-**
5 **ONLY OPERATION.**

6 ***i. DESC should firmly commit to retiring Wateree as soon as the Canadys CC***
7 ***comes online and Williams at year-end 2034, as it modeled in its Preferred***
8 ***Portfolio.***

9 **Q Has DESC firmly committed to planned retirement dates for Wateree and**
10 **Williams?**

11 **A**No. In this docket, DESC makes vague statements about when it will retire the
12 two coal plants and does not formally commit to a retirement date for either.
13 DESC modeled Wateree retiring at year-end 2032 and Williams retiring at year-
14 end 2034 in its Preferred Portfolio.¹⁴ However, DESC’s language in the IRP
15 makes clear that this is just a modeling decision—not a commitment. Specifically,
16 DESC writes that it “will continue to study and evaluate the eventual retirement
17 of Williams, along with the retirement of Wateree as conditions on its system
18 develop.”¹⁵ In his direct testimony, Witness James W. Neely comments, “The

¹³ *Id.*; see *New Source Performance Standards for Greenhouse Gas Emissions From New, Modified, and Reconstructed Fossil Fuel-Fired Electric Generating Units; Emission Guidelines for Greenhouse Gas Emissions From Existing Fossil Fuel-Fired Electric Generating Units; and Repeal of the Affordable Clean Energy Rule*, 89 Fed. Reg. 39,798 (May 9, 2024), available at <https://www.govinfo.gov/content/pkg/FR-2024-05-09/pdf/2024-09233.pdf>.

¹⁴ DESC 2026 IRP at 43.

¹⁵ *Id.* at 19.

1 retirements of Wateree and Williams depend on DESC having sufficient
2 generation and transmission to serve actual and forecasted load at the time that the
3 decision is made to retire them.”¹⁶

4 Additionally, several of the sensitivity and supplemental build plans that DESC
5 modeled for its IRP include later retirement dates for Wateree and Williams. The
6 Near-Term Load Growth and Aggressive Regulation Build Plan scenarios delay
7 the retirement of Wateree to year-end 2034, the same year that Williams retires.¹⁷
8 Meanwhile, the two supplemental cases with “optimized” retirement dates delay
9 the retirement of one or both plants even further, to the 2040s.¹⁸ Delayed
10 retirement would expose ratepayers to substantial costs and risks, as I discuss in
11 more detail below.

12 **Q Has DESC delayed the retirement dates of Wateree and Williams in the**
13 **past?**

14 **A** Yes. DESC has a history of delaying the retirement of Wateree and Williams, at
15 high cost to ratepayers. Table 2 compares planned resource additions and
16 proposed retirement dates in DESC’s IRPs over time. From 2020 through today,
17 DESC has consistently delayed planned coal retirements, increased gas additions,
18 and decreased renewable and battery storage buildout.

¹⁶ Direct Testimony of James W. Neely on Behalf of Dominion Energy South Carolina, Inc. at 22 (June 3, 2026) [hereinafter “Neely Direct”].

¹⁷ DESC 2026 IRP at 10.

¹⁸ *Id.* at 10.

Table 2. Near-term (2026–2035) resource additions in DESC IRP and IRP Update Preferred Portfolios¹⁹

IRP	Wateree and Williams retirement	CC and CT additions	Other resource additions
Modified 2020 IRP	Wateree and Williams retire year-end 2028	523 MW CT and 553 MW CC in 2028	700 MW solar, 300 MW battery storage
2023 IRP	Wateree retires year-end 2028, Williams retires year-end 2030	662 MW CC in 2031	3,000 MW solar, 800 MW battery storage
2024 IRP Update	Wateree retires year-end 2028, Williams retires year-end 2030	402 MW CT in 2029, 662 MW CC in 2031	3,000 MW solar, 400 MW battery storage
2025 IRP Update	Wateree and Williams retire at year-end 2031	998 MW CC in 2032	1,800 MW solar, 400 MW paired solar and battery storage
2026 IRP	Wateree retires year-end 2032, Williams retires year-end 2034	1,098 MW CC in 2033	600 MW paired solar and battery storage

Sources: See note 19 below.

¹⁹ DESC, Modified 2020 Integrated Resource Plan at 7 (Feb. 19, 2021), available at: <https://dms.psc.sc.gov/Attachments/Matter/2ff6b38d-c8f9-4f29-8d9f-cc756de01a4e>; DESC, 2023 Integrated Resource Plan at 13 (Jan. 30, 2023), available at: <https://dms.psc.sc.gov/Attachments/Matter/ee0417c1-e32f-47f4-a9ee-fd3dc0725186>; DESC, 2024 Integrated Resource Plan Update at 10 (Mar. 28, 2024), available at: <https://dms.psc.sc.gov/Attachments/Matter/3a27d786-346f-45cd-8a5a-05471ee1cedb>; DESC, 2025 Integrated Resource Plan Update at 4 (Mar. 31, 2025), available at: <https://dms.psc.sc.gov/Attachments/Matter/8f3cca6c-1724-4a97-b7d4-4194c09cd77c>; and DESC 2026 IRP at 6. DESC published a 2021 IRP that had the same resource additions from 2026–2035 as the Modified 2020 IRP and included additional solar and battery storage in 2023.

1 **Q How have DESC’s past delays in the retirement dates of Wateree and**
2 **Williams impacted ratepayers?**

3 **A**DESC originally intended to retire both Wateree and Williams by year-end 2028
4 to avoid incurring compliance costs with the 2020 ELG Rule.²⁰ Because DESC
5 delayed retirement of the plants beyond 2028, it incurred \$76 million in capital
6 expenditures to comply with the 2020 ELG Rule at Wateree and \$162 million at
7 Williams.²¹ These expenditures would not have been necessary if DESC had
8 retired the plants on schedule.

9 **Q What costs will DESC incur if it delays the retirement of these coal plants**
10 **further?**

11 **A**If DESC delays the retirement of either Wateree or Williams beyond year-end
12 2034, it will be forced to incur substantial additional costs to comply with the
13 2024 ELG Rule.²² Specifically, DESC projects it will need to spend \$100 million
14 or more per plant (\$200 million total) to install ZLD systems at each plant.²³ As
15 recently as 2025, the Company estimated that the cost to install a ZLD system at

²⁰ *Steam Electric Reconsideration Rule*, 85 Fed. Reg. 64,650 (Oct. 13, 2020), available at: <https://www.federalregister.gov/documents/2020/10/13/2020-19542/steam-electric-reconsideration-rule>.

²¹ DESC Response to Sierra Club Data Request No. 2-05 (attached as Exhibit LM-2).

²² *See Supplemental Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category*, 89 Fed. Reg. 40,198 (May 9, 2024), available at: <https://www.federalregister.gov/documents/2024/05/09/2024-09185/supplemental-effluent-limitations-guidelines-and-standards-for-the-steam-electric-power-generating> [hereinafter “2024 ELG Rule”].

²³ DESC Response to ORS Data Request No. 2-05 (attached as Exhibit LM-3).

1 Wateree was \$25 million,²⁴ meaning that its cost estimate has quadrupled in just
2 one year.²⁵ DESC admitted that even the \$100 million cost estimate is an “order of
3 magnitude”²⁶ estimate and “may be materially understated.”²⁷ Cost escalation is
4 especially likely given that ZLD systems are still an experimental technology for
5 plants of this size.

6 Once constructed, these compliance retrofits also result in large operations and
7 maintenance costs.²⁸ DESC stated in discovery that it does not have an estimate of
8 FOM costs for the ZLD systems at Wateree and Williams.²⁹ However, it is likely
9 that FOM would add substantial costs each year that the plants continue to
10 operate.

11 **Q When will DESC need to make a final decision about whether it plans to**
12 **install ZLD systems at Wateree and Williams?**

13 **A The Company has been evasive about when it would need to begin planning for a**
14 **ZLD system if it were to delay retirement of either plant beyond year-end 2034,**

²⁴ *Dominion Energy South Carolina, Inc.’s 2025 Integrated Resource Plan (IRP) Update*, Public Service Commission of South Carolina, Docket No. 2025-9-E, DESC Response to Sierra Club Data Request No. 1-07 (attached as Exhibit LM-4).

²⁵ DESC Response to Sierra Club Data Request No. 2-03 (attached as Exhibit LM-5).

²⁶ DESC Response to ORS Data Request No. 2-05 (Exhibit LM-3).

²⁷ DESC Response to ORS Data Request No. 1-32 (attached as Exhibit LM-6).

²⁸ For example, DESC estimated in the 2025 IRP Update docket that the operations and maintenance cost for a different piece of environmental compliance equipment at Williams, the flue gas desulfurization (“FGD”) unit, would cost \$4.5 to 5 million per year beginning in 2026. *See Dominion Energy South Carolina, Inc.’s 2025 Integrated Resource Plan (IRP) Update*, Public Service Commission of South Carolina, Docket No. 2025-9-E, DESC Response to Sierra Club Data Request No. 1-08 (attached as Exhibit LM-7).

²⁹ DESC Response to Sierra Club Data Request No. 1-15 (attached as Exhibit LM-8).

1 writing only that “[t]he date to meet these obligations will be included in the
2 NPDES permit.”³⁰ DESC has not yet made any expenditures at Wateree and
3 Williams to comply with the 2024 ELG Rule, because it currently plans to retire
4 both plants before the 2034 compliance deadline.³¹ Ratepayers will be better off if
5 DESC firmly commits to retire both plants before year-end 2034, thereby
6 avoiding the need for expenditures on ZLD systems. Otherwise, DESC runs the
7 risk of ZLD expenditures becoming stranded assets. If DESC constructs the ZLD
8 systems but then retires the coal plants before the ZLD systems are fully
9 depreciated, ratepayers would still be on the hook for the cost of the ZLD
10 systems.

11 **Q Will DESC have enough firm capacity to retire the coal plants by their**
12 **currently planned retirement dates?**

13 **A** Yes. Once the Canadys CC plant comes online, DESC will have enough
14 replacement capacity to serve load and retire both Wateree and Williams. Figure 2
15 compares the reserve margin in the Preferred Portfolio to DESC’s target reserve
16 margin of 20 percent. Including DESC’s near-term resource additions from the
17 Preferred Portfolio—the Canadys CC and 300 MW of paired solar and storage
18 that comes online between 2031 and 2034—DESC will have more capacity than it
19 needs to meet its target reserve margin every year from 2026 to 2034.³² Even after
20 Wateree retires, DESC projects that it will have a reserve margin of 28–29 percent
21 in 2033 and 2034, while both Williams and Canadys are online. Only in 2035,

³⁰ DESC Response to Sierra Club Data Request No. 2-01 (attached as Exhibit LM-9).

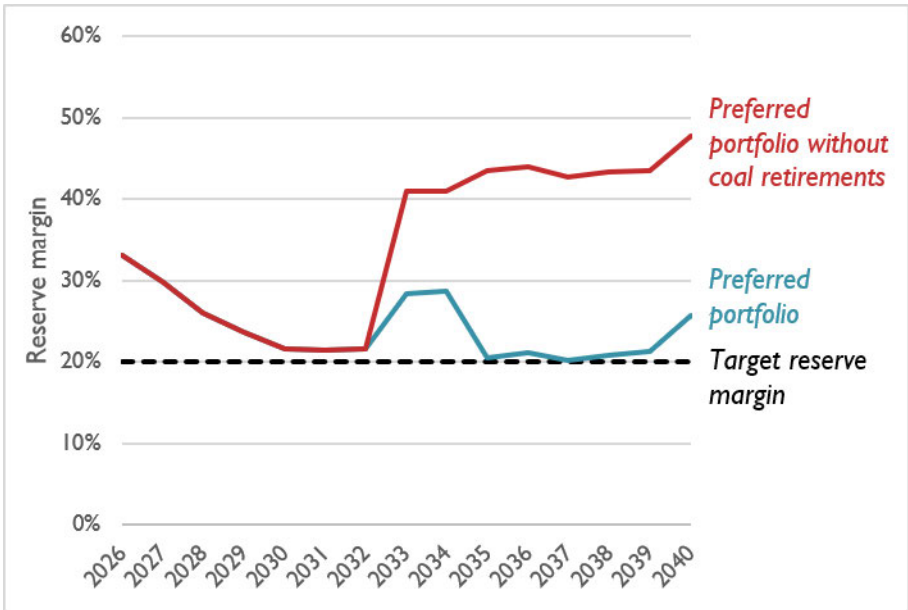
³¹ *Id.*

³² DESC 2026 IRP at 43.

1 when both Wateree and Williams are retired, does the reserve margin decrease to
2 exactly the target value of 20 percent.

3 Figure 2 also shows DESC’s reserve margin if DESC were to delay the retirement
4 of Wateree and Williams while maintaining the same resource additions and load
5 growth as the Preferred Portfolio. In this scenario, the Company’s reserve margin
6 would jump to *over twice the target value* once the Canadys CC comes online in
7 2033, and it would remain *above 40 percent* throughout the rest of the 2030s. This
8 underscores how unnecessary it would be for DESC to keep Wateree and
9 Williams online once the Canadys CC is operational. At that point, DESC would
10 be forcing its ratepayers to shoulder the ongoing capital and FOM costs associated
11 with both coal plants when the capacity of the plants is not needed.

12 **Figure 2. Reserve margin under Preferred Portfolio with and without retirement of**
13 **Wateree and Williams**



14
15 Source: DESC Response to ORS Data Request No. 1-08, “2026 IRP Load and Resource
16 Balance.xlsx.” See *supra* note 5.

1 In her direct testimony, Sierra Club Witness Sabine Chavin discusses her
2 independent reliability modeling, which evaluates the resource adequacy of
3 DESC's PLEXOS model results in 2035. Her modeling results further confirm the
4 continued reliability of DESC's system after Wateree and Williams retire, even if
5 DESC experiences increased near-term load growth beyond the reference
6 forecast. Her modeling finds that the Preferred Portfolio, which includes the
7 retirements of Wateree and Williams by year-end 2032 and 2034, respectively,
8 exceeds DESC's reliability standard in 2035. Her modeling also finds that this
9 same resource portfolio, inclusive of the coal retirements, would be able to
10 reliably serve a higher load forecast in 2035 than DESC currently anticipates.
11 This indicates that DESC can safely retire Wateree and Williams, even if higher-
12 than-expected load materializes in the next decade.

13 **Q If additional load growth materializes in DESC's service area, would the**
14 **Company have time to procure resources to serve that load?**

15 **A** Yes. Although the Preferred Portfolio is able to meet DESC's reliability standard
16 under a higher load forecast, this does not necessarily mean that it would be the
17 most economic portfolio under a higher load forecast. Resources with low
18 variable operating costs, such as paired solar and storage, can help drive down
19 average energy production costs and avoid generation from more expensive
20 peaking fossil plants. If more load materializes over the next few years than
21 DESC currently projects in its base load forecast, DESC has plenty of time to
22 procure additional renewable and battery storage resources to serve that load. The
23 Company's PLEXOS modeling demonstrates that paired solar and storage is the
24 most economic resource to serve incremental near-term capacity needs. In the
25 Preferred Portfolio, the model economically selects 600 MW of paired solar and

1 storage by 2035, which is the only near-term resource addition besides the
2 Canadys CC.³³

3 The Company's lead time is only 1–2 years for battery storage,³⁴ and about [REDACTED]
4 [REDACTED] for solar.³⁵ It is important that the Company firmly commit to retirement
5 dates for Wateree and Williams now, so that it can appropriately plan for and
6 procure replacement resources as needed. If the Company decides on retirement
7 dates for these plants at the last minute, or is forced to retire them due to age-
8 related malfunctions, it will have a much harder time procuring cost-effective
9 replacement capacity in time to meet its system needs.

³³ DESC 2026 IRP at 43.

³⁴ *Joint Application of South Carolina Public Service Authority (Santee Cooper) and Dominion Energy South Carolina, Inc. for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of an Advanced Class Combined Cycle Generating Plant and Associated Facilities in Colleton County, South Carolina, Pursuant to S.C. Code Ann. § 58-33- 10 et. seq.*, Public Service Commission of South Carolina, Docket No. 2025-323-E, Direct Testimony of Franklin Clay Settle on Behalf of Dominion Energy South Carolina, Inc. at 35 (Dec. 15, 2025), available at: <https://dms.psc.sc.gov/Attachments/Matter/09520608-ed93-4ded-ac70-b0ff2c60280f>.

³⁵ DESC Confidential Response to ORS Data Request No. 1-25, “ORS 1-25 Build Limits and Constraints CONFIDENTIAL.xlsx.” (attached as Exhibit LM-10). This lead time estimate is based on the first year of availability for solar.

1 ii. DESC’s delayed retirement scenarios omit key costs and risks of continuing to
2 operate Wateree and Williams over the long term.

3 **Q Do DESC’s “optimized coal retirement” cases that delay retirement of**
4 **Wateree and Williams rely on realistic assumptions about future operations**
5 **of these plants?**

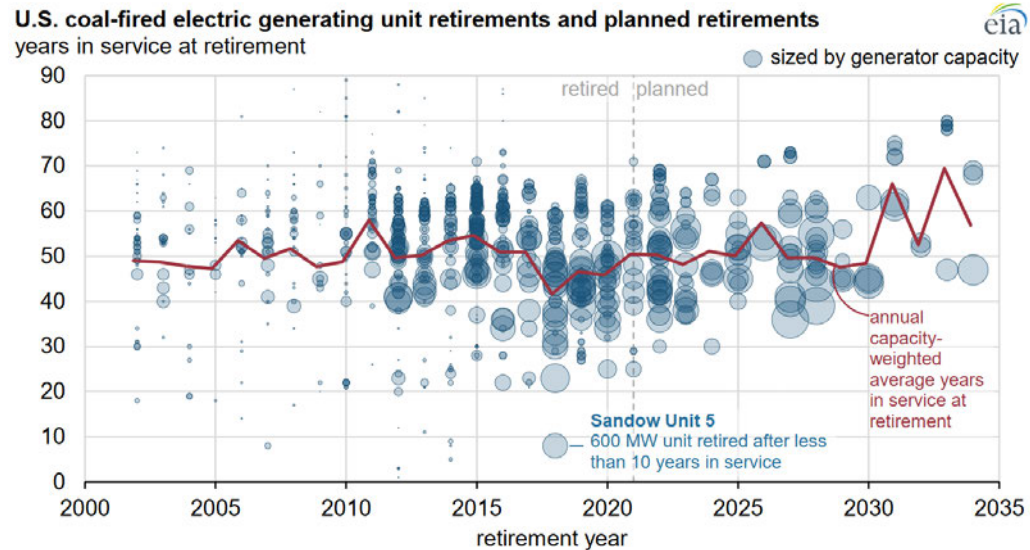
6 **A**No. DESC’s two “optimized coal retirement” cases, which delay retirement of
7 Wateree and Williams to the 2040s, rely on unrealistic assumptions. The
8 Reference Optimized Retirements Build Plan retires Wateree at year-end 2032 but
9 delays the retirement of Williams to year-end 2046.³⁶ The High Load Optimized
10 Retirements Build Plan delays the retirement of Wateree to year-end 2044 and
11 Williams to year-end 2046, when both plants would be over 70 years old.³⁷

12 The average age of U.S. coal plants on retirement is about 50 years (Figure 3).
13 Attempting to operate Wateree and Williams until they are over 70 years old
14 would expose ratepayers to high costs and risks, many of which are seriously
15 underestimated in DESC’s delayed retirement scenarios. As I explain below, this
16 includes the risk of high and increasing costs to maintain the plants, the risk of
17 future environmental compliance costs, the risk of outages as the plants age and
18 replacement parts become harder to obtain, and risks related to fuel supply as the
19 U.S. coal industry contracts.

³⁶ DESC 2026 IRP at 96.

³⁷ *Id.* at 97.

Figure 3. Capacity-weighted average years in service of U.S. coal-fired units at retirement



Source: U.S. Energy Information Administration, "Of the operating U.S. coal-fired power plants, 28% plan to retire by 2035" (Dec. 15, 2021), available at: <https://www.eia.gov/todayinenergy/detail.php?id=50658>.

Q Which costs does DESC incur each year that it continues to operate Wateree and Williams?

A Coal plants, including Wateree and Williams, have high fixed operating costs, including both ongoing capital expenditures (to replace parts as they wear out and install environmental compliance equipment) and FOM (for annual costs such as labor and equipment maintenance). Confidential Table 3 shows the average fixed costs that DESC projects at Wateree and Williams through 2032, which is the last year of its current capital budget.³⁸ DESC projects that it will spend an average of [REDACTED] dollars per year in fixed costs at Wateree and [REDACTED] per year at

³⁸ DESC Response to Sierra Club Data Request No. 1-12 (attached as Exhibit LM-11).

1 Williams to continue operating the plants.³⁹ Annual costs can be much higher than
 2 average in years when environmental compliance equipment must be installed or
 3 when a part breaks unexpectedly. These estimates do not include the cost to install
 4 ZLD systems to comply with the 2024 ELG Rule, which will be necessary if
 5 DESC delays retirement of either plant beyond 2034. In addition to high fixed
 6 costs, DESC also incurs costs at the plants each year for variable operations and
 7 maintenance and fuel.

8 **Confidential Table 3. Average annual fixed costs at Wateree and Williams (2026–**
 9 **2032), not including ZLD costs (millions of 2026\$)**

Cost category	Wateree	Williams
Average annual capital expenditures		
Annual fixed operations and maintenance		
Total annual fixed costs		

10 *Source: “2025 to 2032 Planet [sic] Budget 6.10.25 CONFIDENTIAL.xlsx” and “FixedFuel FOM*
 11 *OnGoingCapital datasheet builder 2025_11_01 CONFIDENTIAL.xlsx.”*

12 **Q Do the scenarios with delayed coal retirements fully count the forward-going**
 13 **fixed costs at Wateree and Williams?**

14 **A** No. First, DESC does not adjust ongoing capital costs for Wateree and Williams
 15 in these scenarios based on the increasing age of the plants.⁴⁰ Instead, it escalates
 16 costs after 2032 (the last year of its current capital plan) based on inflation
 17 alone.⁴¹ However, a Sargent & Lundy study of the U.S. coal fleet found that coal
 18 plant age is the single most important factor (in addition to presence of a flue gas
 19 desulfurization unit) in determining ongoing capital costs necessary to maintain a

³⁹ “2025 to 2032 Planet [sic] Budget 6.10.25 CONFIDENTIAL.xlsx” and “FixedFuel FOM OnGoingCapital datasheet builder 2025_11_01 CONFIDENTIAL.xlsx.”

⁴⁰ DESC Response to Sierra Club Data Request No. 2-13 (attached as Exhibit LM-12).

⁴¹ DESC Response to Sierra Club Data Request No. 1-12 (Exhibit LM-11).

1 coal plant, and that ongoing capital expenditures generally scale up in proportion
2 to unit age.⁴² As coal plants get older, they generally require more extensive and
3 frequent repairs to maintain operations, thereby increasing annual capital
4 expenditures. Long-term, DESC's omission of age-related escalation in ongoing
5 capital expenditures means that DESC is under-estimating the cost of keeping the
6 plants online in its modeling.

7 Second, although DESC did model the capital expenditure of the ZLD system, it
8 omitted operations and maintenance costs for the ZLD equipment.⁴³ While it may
9 be difficult to precisely estimate the FOM of this technology given its
10 experimental nature, the costs will likely amount to millions of dollars per year
11 for each plant, as explained above.

12 Third, DESC did not model any future capital expenditures related to
13 environmental compliance, other than the ZLD system. It is unrealistic to think
14 the plants could operate through the 2040s without any additional environmental
15 capital expenditures. While many environmental regulations are being challenged
16 or relaxed at present, coal plants will continue to face environmental regulation
17 going forward under existing and new policies, including the 2020 and 2024 ELG

⁴² Sargent & Lundy, *Generating Unit Annual Capital and Life Extension Costs Analysis: Final Report on Modeling Aging-Related Capital and O&M Costs* at 58 (Dec. 2018), available at:

https://www.eia.gov/analysis/studies/powerplants/generationcost/pdf/full_report.pdf.

⁴³ DESC Response to Sierra Club Data Request No. 2-02 (attached as Exhibit LM-13).

1 Rule,^{44,45} Mercury and Air Toxics Standards (“MATS”),⁴⁶ and the Clean Air Act
2 Section 111 Greenhouse Gas Rule.⁴⁷

3 **Q Will DESC face reliability risks if it continues operating Wateree and**
4 **Williams long-term?**

5 **A** Yes. DESC itself has acknowledged that the plants are reaching the end of their
6 useful lives, and attempting to continue operating them would put DESC and its
7 ratepayers at risk of major outages. At the evidentiary hearing for Docket No.
8 2025-323-E (the Canadys CECPCN docket), DESC President W. Keller Kissam
9 testified that “Dominion Energy has plans to retire its coal plants based upon their
10 age... They’re going to run out of life here soon.”⁴⁸ He also warned the
11 Commission, “Don’t discount the age on those coal plants. You say retire, that
12 seems like something that’s intentional. Sooner or later, those units...are going to
13 cause us to have to retire them.”⁴⁹

⁴⁴ See *supra* note 19.

⁴⁵ See *supra* note 21.

⁴⁶ *National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units Review of the Residual Risk and Technology Review*, 89 Fed. Reg. 38,508 (May 7, 2024), available at <https://www.govinfo.gov/content/pkg/FR-2024-05-07/pdf/2024-09148.pdf>.

⁴⁷ See *supra* note 13.

⁴⁸ *Joint Application of South Carolina Public Service Authority and Dominion Energy South Carolina, Inc. for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of an Advanced Class Combined Cycle Generating Plant and Associated Facilities in Colleton County, South Carolina, Pursuant to S.C. Code Ann. § 58-33- 10 et. seq.*, Public Service Commission of South Carolina, Docket No. 2025-323-E, Hearing Livestream Part 1 of 5 (April 14, 2026) at 1:18:00, available at: https://www.youtube.com/watch?v=ZqnD0xwQ_0g.

⁴⁹ *Id.* at 1:19:00.

1 In his direct testimony in this docket, Witness Neely noted that there are “a
2 number of reasons” why including the coal plants’ so-called “optimized”
3 retirement dates in the Preferred Portfolio “did not appear to be appropriate at this
4 time.”⁵⁰ These include the cost of installing ZLD systems at the plants, the age of
5 the plants, and concerns about the cost and availability of fuel.⁵¹ In discovery,
6 Witness Neely explained, “in 2034 Williams will be 61 years old and Wateree
7 will be 64 years old and system reliability may dictate replacing these units.”⁵²

8 **Q How will the availability of replacement parts for Wateree and Williams**
9 **change as the plants age?**

10 **A** It will become harder and more expensive for DESC to obtain replacement parts
11 for the coal plants as they age and as U.S. coal generation declines. Problems
12 obtaining obsolete replacement parts are already impacting U.S. coal plants. For
13 example, when the boiler feed pump turbine failed at F.B. Culley Unit 3, a coal
14 unit in Indiana, the best option available to replace it was to use a part from a
15 retired coal plant in Montana, rather than buying the part new.⁵³ The unit was

⁵⁰ Neely Direct at 22.

⁵¹ *Id.*

⁵² DESC Response to ORS Data Request No. 1-32 (Exhibit LM-6).

⁵³ *Subdocket for Review of Southern Indiana Gas and Electric Company d/b/a CenterPoint Energy Indiana South (“CEI South”) 2021 Extended Forced Outage at Culley 3 Generating Unit and its Related Impact on Fuel Procurement and Fuel Costs*, Indiana Utility Regulatory Commission, Cause No. 38708 FAC 137, Direct Testimony of Wayne D. Games at 19 (Nov. 16, 2022), available at: https://iurc.portal.in.gov/_entity/sharepointdocumentlocation/df488571-5893-ed11-aad1-001dd80726a4/bb9c6bba-fd52-45ad-8e64-a444aef13c39?file=38708%20FAC%20137%20Petitioner%20Exhibit%20No.%201.pdf.

1 offline from June 2022 to March 2023 while CenterPoint (the owner of the unit)
2 obtained this replacement part.⁵⁴

3 Wateree and Williams are also aging plants, so the availability of replacement
4 parts is a concern for them as well. In addition, Wateree has a history of long-term
5 outages. Wateree Unit 2 was offline for over two years after a hydrogen explosion
6 in February 2020 damaged the unit's stator.⁵⁵ It did not come back online until
7 April 2022.⁵⁶ Future outages at either plant could result in higher costs for
8 ratepayers if DESC needs to purchase replacement capacity while the plant is
9 offline.

10 **Q How will the grid's evolving resource mix affect the future reliability of**
11 **Wateree and Williams?**

12 **A** Going forward, rising levels of renewables and other zero-marginal cost and low-
13 operating cost resources will continue to push coal units such as Wateree and
14 Williams out of the baseload role for which they were designed and into load-

⁵⁴ *Id.*; Subdocket for Review of Southern Indiana Gas and Electric Company d/b/a CenterPoint Energy Indiana South ("CEI South") 2021 Extended Forced Outage at Culley 3 Generating Unit and its Related Impact on Fuel Procurement and Fuel Costs, Indiana Utility Regulatory Commission, Cause No. 38708 FAC 137, Order of the Commission at 2 (Jan. 28, 2026), available at https://iurc.portal.in.gov/entity/sharepointdocumentlocation/4e186869-4939-ef11-8409-001dd80b3563/bb9c6bba-fd52-45ad-8e64-a444aef13c39?file=ord_38708FAC137S1_070324.pdf.

⁵⁵ *Annual Review of Base Rates for Fuel Costs for Dominion Energy South Carolina, Incorporated (For Potential Increase or Decrease in Fuel Adjustment)*, Public Service Commission of South Carolina, Docket No. 2022-2-E, Direct Testimony of Henry E. Delk, Jr. at 10 (Feb. 7, 2022), available at: <https://dms.psc.sc.gov/Attachments/Matter/63d21edb-489a-423e-98fc-9d3815bf7fc8>.

⁵⁶ U.S. Energy Information Administration, Form EIA-860, 2022 Release, available at: <https://www.eia.gov/electricity/data/eia860/>.

1 following roles they are poorly suited to fill. A declining capacity factor can then
2 negatively impact unit reliability, compounding the age-related reliability impacts
3 described above.

4 A 2024 analysis by the North American Electric Reliability Corporation
5 (“NERC”) found that coal units’ equivalent forced outage rates tend to increase as
6 their capacity factors decrease, especially once the capacity factors drop below 60
7 percent.⁵⁷ This effect is partially driven by increased forced outage hours, but
8 NERC found that it is also a result of increased time spent in planned and
9 maintenance outages, leading to decreased service hours.⁵⁸ Both of these factors
10 (increased forced outage hours and decreased service hours) are likely driven by
11 the same cause: coal units that operate at low capacity factors are acting as load-
12 following resources, which requires more cycling than these units were designed
13 to withstand. Cycling (*i.e.*, ramping up and down and startup/shutdown) causes
14 physical damage to coal units through several mechanisms, including thermal
15 fatigue, thermal expansion, corrosion-related issues, fireside corrosion, and rotor
16 bore cracking.⁵⁹

⁵⁷ North American Electric Reliability Corporation, *2024 State of Reliability: Technical Assessment of 2023 Bulk Power System Performance* at 59 (June 2024), available at: https://www.nerc.com/pa/RAPA/PA/Performance%20Analysis%20DL/NERC_SOR_2024_Technical_Assessment.pdf.

⁵⁸ *Id.*

⁵⁹ Hesler, S., “Mitigating the Effects of Flexible Operation on Coal-Fired Power Plants,” *POWER* (Aug. 1, 2011), available at: <https://www.powermag.com/mitigating-the-effects-of-flexible-operation-on-coal-fired-power-plants/>.

1 **Q** **What fuel supply risks would DESC face if it extended the operation of**
2 **Wateree and Williams?**

3 **A** DESC appears concerned about fuel supply risk at Wateree and Williams if it
4 delays retirement of the plants. The Company noted in discovery that “the
5 availability and cost of fuel past 2034 could dictate retirement of coal
6 generation.”⁶⁰ The coal market has seen dramatic price volatility in some parts of
7 the United States over the past few years.⁶¹ Additionally, as coal plants across the
8 United States retire and the demand for coal decreases, coal companies could
9 consolidate. Concentration of the coal supply among fewer companies means less
10 competition, which in turn can lead to higher coal prices.⁶²

11 Coal accounted for less than 20 percent of total U.S. utility-scale generation in
12 each year from 2023–2025, falling as low as 15 percent in 2024.⁶³ This represents
13 a decrease in the market share of coal relative to previous years. Coal’s national
14 market share of electric generation had been around 20 percent each month
15 between 2020 and 2022, and prior to 2020, coal had never comprised less than 20
16 percent of the market in any month.⁶⁴ Decreased demand for coal is already

⁶⁰ DESC Response to ORS Data Request No. 1-32 (Exhibit LM-6).

⁶¹ U.S. Energy Information Administration, “Coal Markets,” available at:
<https://www.eia.gov/coal/markets/>.

⁶² Duke Energy, “Coal Retirement Analysis,” available at: <https://www.duke-energy.com/-/media/pdfs/our-company/carolinas-resource-plan/appendix-f-coal-retirement-study.pdf?rev=4c1c4df441a14248b2e23ba0368d9855>.

⁶³ U.S. Energy Information Administration, “U.S. electricity generation by major energy source, 1950-2025” (2026), available at:
<https://www.eia.gov/todayinenergy/detail.php?id=65787>.

⁶⁴ Institute for Energy Economics and Financial Analysis, “Coal Use at U.S. Power Plants Continues Downward Spiral; Full Impact on Mines to be Felt in 2024” (Nov. 2, 2023), available at: <https://ieefa.org/resources/coal-use-us-power-plants-continues-downward-spiral-full-impact-mines-be-felt-2024>.

1 impacting coal supply in the southeast. A coal mine in West Virginia announced
2 in January 2026 that it will close permanently in the spring due to a lack of
3 customer demand.⁶⁵

4 **Q In summary, are DESC’s delayed retirement scenarios realistic?**

5 **A**No. Continuing to operate Wateree and Williams beyond their currently planned
6 retirement dates would expose ratepayers to high cost and risk. DESC states that
7 “the retirements of Wateree and Williams depend on DESC having sufficient
8 generation and transmission to serve actual and forecasted load at the time that the
9 decision is made to retire them.”⁶⁶ This will not happen by accident or through
10 delayed decision-making. As I described above, DESC has a history of delaying
11 the planned retirement dates for these plants and incurring hundreds of millions of
12 dollars in environmental compliance costs as a result.⁶⁷ Continuing this pattern is
13 not in the best interests of ratepayers. The optimal way to obtain sufficient
14 replacement capacity for these aging, costly coal plants is for DESC to commit to
15 retirement dates and then rigorously plan for the replacement of Wateree and
16 Williams.

⁶⁵ Rather, J., “Mittiki Coal closing Tucker County mine; nearly 200 to be laid off,” 12 WBOY (Jan. 29, 2026), available at: <https://www.wboy.com/news/tucker/mettiki-coal-to-close-tucker-county-mine-nearly-200-laid-off/>.

⁶⁶ Neely Direct at 22.

⁶⁷ DESC Response to Sierra Club Data Request No. 2-05 (Exhibit LM-3).

1 **iii. DESC should study whether it would be economic to retire coal-burning**
2 **equipment at Cope, including evaluating multiple methods for firming the**
3 **capacity of the plant in a gas-only scenario.**

4 **Q How does DESC currently operate Cope?**

5 **A** Cope is currently a dual-fuel unit that operates on both coal and gas. DESC
6 restored dual-fuel firing capability to the plant, which had previously been firing
7 on coal only, in June 2016.⁶⁸ Over the next four years, the share of Cope’s annual
8 generation from coal dropped sharply, from 100 percent in 2016 to only 23
9 percent in 2020 (Figure 3).⁶⁹ This decline was based on the favorable economics
10 of operating the plant on gas compared to coal. Since 2019, Cope has operated on
11 coal for a quarter to a half of its annual generation.⁷⁰ Because the plant is dual-
12 fueled, DESC is paying to maintain both coal- and gas-burning capabilities at the
13 plant. If DESC ended coal-firing at Cope, ratepayers would no longer need to pay
14 to maintain solid-fuel handling equipment at the plant.

⁶⁸ *South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to S.C. Code Ann. Section 58-37-40 and Integrated Resource Plans for Dominion Energy South Carolina, Incorporated (See also Docket No. 2021-9-E)*, Public Service Commission of South Carolina, Docket No. 2019-226-E, Dominion Energy South Carolina, Inc. Modified 2020 Integrated Resource Plan at 13 (Feb. 19, 2021), available at: <https://dms.psc.sc.gov/Attachments/Matter/2ff6b38d-c8f9-4f29-8d9f-cc756de01a4e>.

⁶⁹ DESC Response to Sierra Club Data Request No. 2-12, “Sierra Club r1.xlsx.” (attached as Exhibit LM-14).

⁷⁰ *Id.*

1 **Figure 4. Percent of Cope annual generation from coal 2016–2025**



2
3 *Source: DESC Response to Sierra Club Data Request No. 2-12, "Sierra Club r1.xlsx."*
4 *(Exhibit LM-14).*

5 **Q Does DESC track how much it is spending to maintain solid-fuel-burning**
6 **capabilities at Cope?**

7 **A** No. DESC stated in discovery that it does not currently track the amount that it
8 spends annually to maintain solid-fuel burning equipment at Cope.⁷¹ This
9 omission has the potential to harm ratepayers, because it leaves DESC with no
10 way to quantify whether it would be more economic to end coal-burning at the
11 plant. DESC should quantify how much it is spending each year to maintain solid-
12 fuel equipment at the plant so that it can accurately analyze whether it would be
13 more cost-effective to retire this equipment. DESC's analysis should also include
14 any changes in variable operations and maintenance and fuel costs at Cope that
15 would result from the retirement of solid-fuel burning equipment.

⁷¹ DESC Response to Sierra Club Data Request No. 2-12 (Exhibit LM-14).

1 Separately tracking coal-related costs is common practice among utilities that are
2 considering whether to modify the fuel of an existing coal plant. For example, in
3 its recent analysis of whether it would be cost-effective to convert Plant Daniel
4 Unit 2 from coal to gas, Mississippi Power prepared an economic analysis that
5 separately quantified ongoing capital expenditures and FOM for the unit operating
6 on coal compared to gas. For ongoing capital expenditures, “coal-specific
7 systems” included “coal handling equipment and the flue-gas desulfurization
8 (scrubber) system.”⁷² For the case where the unit operated on gas, Mississippi
9 Power also assumed “a reduction in FOM reflecting the removal of coal-handling,
10 ash management, and other coal-specific requirements.”⁷³ DESC should similarly
11 be able to track how much it is spending to maintain coal-handling equipment at
12 Cope.

13 Tampa Electric Company (“TECO”)’s Polk Unit 1 provides another example.
14 Polk Unit 1 could originally operate either on gasified coal or natural gas. In
15 2025, the Florida Public Service Commission ordered TECO to retire the coal
16 gasification equipment at Polk 1 as part of a planned conversion of the unit to
17 operate in simple cycle configuration.⁷⁴ This led to a corresponding reduction in
18 operations and maintenance costs at the unit.⁷⁵

⁷² *Petition of Mississippi Power Company for a Certificate of Public Convenience and Necessity Authorizing the Conversion to Natural Gas of Unit 2 of Plant Victor J. Daniel in Jackson County, Mississippi*, Mississippi Public Service Commission, Docket No. 2026-UA-5, Daniel Unit 2 Natural Gas Conversion Economic Analysis at 2 (Jan. 2026), available at: <https://ctsportal.psc.ms.gov/portal/ViewFile?fileId=OsHieGpzHQM%3D>.

⁷³ *Id.* at 3.

⁷⁴ *In re: Petition for rate increase by Tampa Electric Company*, Florida Public Service Commission, Docket No. 20240026-EI, Order of the Commission at 98 (Feb. 3, 2025), available at: <https://www.floridapsc.com/pscfiles/library/filings/2025/00646-2025/00646-2025.pdf>.

⁷⁵ *Id.*

1 **Q** **What options does DESC have to maintain accredited capacity at Cope**
2 **without coal-burning?**

3 **A** If DESC retires coal-burning equipment at Cope to avoid the types of costs and
4 risks described in Section 4 above, one option would be to convert Cope to run on
5 gas only and firm its gas supply. Cope already has the technical capability to run
6 on gas only.⁷⁶ However, it does not currently have firm gas service.⁷⁷ Therefore, it
7 would lose firm accredited capacity if DESC removed its solid-fuel capabilities.
8 DESC estimates that obtaining firm gas service at Cope would have a high cost of
9 approximately \$100 million per year.⁷⁸

10 As part of its analysis of whether converting Cope entirely to gas would be cost-
11 effective, DESC should study alternative methods, such as adding battery storage
12 at the Cope site, to firm the capacity of the plant once solid-fuel-burning
13 equipment retires. Other utilities across the country are making use of surplus
14 interconnection rights at existing fossil generation sites to add battery storage and
15 renewables.⁷⁹ For example, Great River Energy in Minnesota is in the process of
16 developing three wind farms (Dodge County Wind, Three Waters Wind, and Big
17 Bend Wind) using surplus interconnection arrangements.⁸⁰ As another example,

⁷⁶ DESC Response to Sierra Club Data Request No. 2-12 (Exhibit LM-14).

⁷⁷ *Id.*

⁷⁸ *Id.*

⁷⁹ In the examples given here, utilities are making use of surplus interconnection primarily to add low-cost renewable generation more quickly. In the case of Cope, DESC would be using battery storage to provide accredited capacity at the Cope site, rather than energy. The same principle of sharing a common interconnection point applies, whether the goal is to provide additional energy or firm capacity.

⁸⁰ Great River Energy, 2026-2040 Integrated Resource Plan at 42 (Apr. 1, 2026), available at: <https://greatriverenergy.com/wp-content/uploads/2026/05/2026-2040-GRE-IRP-FINAL-4-24-2026.pdf>.

1 the New Mexico Public Regulation Commission recently approved Southwest
2 Public Service Company's request to add 472 MW of battery storage, 443 MW of
3 solar, and 1,100 MW of wind using surplus interconnection rights.^{81,82} DESC
4 could use a similar approach to firm the capacity at Cope without coal-firing, and
5 it should study whether this would be a lower-cost option than other alternatives,
6 such as extending firm gas to the site.

⁸¹ *In The Matter Of Southwestern Public Service Company's Application Requesting: (1) Issuance Of Certificates Of Public Convenience And Necessity To Construct And Operate Wind, Solar, Battery And Thermal Generation Projects And Associated Facilities; (2) Issuance Of Certificates Of Public Convenience And Necessity, Location Approval, And Right-Of Way Width Approval For Transmission Lines; (3) Authorization Of Related Ratemaking Principles Including Accrual Of An Allowance For Funds Used During Construction; (4) Variances On Abandonment Of Tolk Generating Station And Class II Affiliate Transactions; And (5) Other Associated Relief*, New Mexico Public Regulation Commission, Docket No. 26-00066-UT, Application at 8 (Sept. 25, 2025).

⁸² *In The Matter Of Southwestern Public Service Company's Application Requesting: (1) Issuance Of Certificates Of Public Convenience And Necessity To Construct And Operate Wind, Solar, Battery And Thermal Generation Projects And Associated Facilities; (2) Issuance Of Certificates Of Public Convenience And Necessity, Location Approval, And Right-Of Way Width Approval For Transmission Lines; (3) Authorization Of Related Ratemaking Principles Including Accrual Of An Allowance For Funds Used During Construction; (4) Variances On Abandonment Of Tolk Generating Station And Class II Affiliate Transactions; And (5) Other Associated Relief*, New Mexico Public Regulation Commission, Docket No. 26-00066-UT, Order of the Commission at 46 (May 7, 2026).

1 **5. DESC SHOULD AVOID OVER-FORECASTING FUTURE CAPACITY NEEDS.**

2 ***5. DESC should take action to enable the customer electrification trends it***
3 ***projects will occur in its service area.***

4 **Q What level of load growth does DESC project in its service area?**

5 **A**DESC projects that it will experience a compound annual growth rate of 1.7
6 percent for winter peak load over the next 10 years (2026–2035) in its base load
7 forecast.⁸³ In contrast, DESC experienced 0 percent growth in its annual peak load
8 over the past 10 years (2016–2025).⁸⁴

9 A 1.7 percent compound annual growth rate is equivalent to an 859 MW increase
10 in winter peak load between 2026 and 2035.⁸⁵ This includes about 300 MW of
11 additional building electrification load,⁸⁶ 40 MW of EV load,⁸⁷ and 300 MW of
12 new load from large-load customers⁸⁸ (which is discussed in more detail in the
13 next section). The remaining ~220 MW is base load growth from residential,
14 commercial, and industrial customer segments.

⁸³ DESC 2026 IRP at 36.

⁸⁴ DESC Response to ORS Data Request No. 1-03 (attached as Exhibit LM-15).

⁸⁵ DESC 2026 IRP at 36.

⁸⁶ Direct Testimony of Joseph Bocanegra on Behalf of Dominion Energy South Carolina, Inc. at 21-22 (June 3, 2026) [hereinafter “Bocanegra Direct”].

⁸⁷ Bocanegra Direct at 22-24.

⁸⁸ DESC Response to ORS Data Request No. 1-02, “ORS 2026-9-E 1-2e.xlsx.” (attached as Exhibit LM-16).

1 **Q Is DESC experiencing rapid population growth in its service area?**

2 **A** No, it does not appear so. DESC expects slowing growth in the number of
3 residential and commercial customers going forward, compared to historical
4 levels (Table 4). It projects that its residential customer count will grow at 1.1
5 percent over the next 15 years, compared to 1.6 percent over the previous 15
6 years.⁸⁹ Similarly, the Company expects its commercial customer count to grow at
7 0.8 percent over the next 15 years, compared to 1.2 percent over the previous 15
8 years.⁹⁰

9 **Table 4. Comparison of historical and projected growth in customer counts**

Customer category	Growth in customer count, past 15 years	Growth in customer count, next 15 years
Residential	1.6%	1.1%
Commercial	1.2%	0.8%

10 *Source: Bocanegra Direct at 7.*

11 **Q What actions should DESC take to ensure that it is not over-forecasting load**
12 **growth?**

13 **A** While it is reasonable to plan for load growth from sources such as building and
14 vehicle electrification, over-forecasting load growth would be risky for ratepayers
15 because it could lead DESC to procure additional resources sooner than it needs
16 them. DESC should take the following actions to ensure the accuracy of its base
17 load forecast:

⁸⁹ Bocanegra Direct at 7.

⁹⁰ *Id.*

- 1 • Clearly outline a plan for actions that will help facilitate the level of
- 2 building electrification and EV load included in its forecast, such as time-
- 3 of-use rates or active managed charging programs; and
- 4 • Maximize DSM as a technique for managing load growth before DESC
- 5 turns to new supply-side resources, as I discuss in more detail in Section 6
- 6 below.

7 **ii. DESC should continue to include only large-load customers with signed**
8 **contracts for service in its base case forecast and should proactively establish a**
9 **large-load tariff that ensures prospective large-load customers will pay their full**
10 **cost of service.**

11 **Q How does DESC decide which large-load customers to include in its**
12 **reference load forecast?**

13 **A** DESC only includes large-load customers with signed contracts for electric
14 service in its base load forecast.⁹¹ This is beneficial for DESC’s ratepayers,
15 because it reduces the risk that DESC will over-build generating resources to
16 serve large load that does not ultimately materialize. Since 2023, DESC has
17 executed contracts with two new large-load customers, Scout Motors, Inc. and
18 Mallard, LLC (a Google data center).⁹² These two customers will have a
19 combined peak load of 305 MW by the time both are fully ramped up in the
20 winter of 2032.⁹³

⁹¹ DESC Response to Sierra Club Data Request No. 1-06 (attached as Exhibit LM-17).

⁹² DESC Response to ORS Data Request No. 2-10 (attached as Exhibit LM-18).

⁹³ DESC Response to ORS Data Request No. 1-02, “ORS 2026-9-E 1-2e.xlsx.” (Exhibit LM-16).

1 **Q How did DESC develop its High Load forecast?**

2 **A**In addition to the base load forecast, DESC developed a High Load forecast that
3 adds approximately 1 gigawatt (“GW”) of uncommitted load from prospective
4 economic development customers, phased in between 2029 and 2031.^{94,95} To
5 develop this forecast, DESC [REDACTED]

6 [REDACTED]
7 [REDACTED]⁹⁶ The remaining [REDACTED] projects range in size from [REDACTED]
8 [REDACTED]⁹⁷ DESC divides
9 these prospective customers into four categories, defined as follows:⁹⁸

- 10 • **Project Update** includes projects that have given DESC any update on
11 project activity within the past six months (*e.g.*, “site is one of two being
12 considered in South Carolina”);
- 13 • **Request for Information (“RFI”) Response** includes projects that have
14 made an initial request for information such as electric or gas capacity,
15 time to serve, and/or cost to serve;
- 16 • **Site Visit** includes projects that have visited the site; and
- 17 • **Project Announced** includes projects that have announced their intention
18 to locate in DESC’s service area.

⁹⁴ Bocanegra Direct at 18.

⁹⁵ DESC Response to ORS Data Request No. 1-02 (Exhibit LM-16).

⁹⁶ Corrected DESC Response to ORS Data Request No. 3-13, “CORRECTED CONFIDENTIAL DESC ED Project Activity Report (11-17-25) REDACTED.xlsx.” (narrative response attached as Exhibit LM-19). The Company’s response to ORS Data Request No. 3-13 includes a voluminous spreadsheet attachment and can be provided to the Commission and properly-authorized parties upon request.

⁹⁷ *Id.*

⁹⁸ Corrected DESC Response to ORS Data Request No. 3-13 (Exhibit LM-19).

DESC included all [REDACTED] prospective customers—which have a total load of [REDACTED] [REDACTED]—in its High Load forecast (Confidential Table 5). Notably, *none* of these prospective customers have signed contracts for service or made financial commitments to receive electric service from DESC. Only [REDACTED] customers, accounting for [REDACTED] of the economic development load, have even announced an intention to locate in DESC’s service area—the remaining load is even earlier in the interconnection process and more speculative.⁹⁹

Confidential Table 5. DESC economic development pipeline included in High Load forecast

Project Stage	Number of Customers	Electric Load (MW)	Percent of Total Load
Project Update	[REDACTED]		
RFI Response			
Site Visit			
Project Announced			
Total			

Source: Corrected DESC Response to ORS Data Request No. 3-13, “CORRECTED CONFIDENTIAL DESC ED Project Activity Report (11-17-25) REDACTED.xlsx.” See *supra* note 96.

Q Is the level of load growth in DESC’s High Load forecast likely to materialize?

A No. It is highly unlikely that the full amount of load in DESC’s High Load forecast will materialize in the Company’s service area. There are a variety of reasons why load in DESC’s economic development pipeline may not ultimately materialize or may materialize more slowly than customers’ initial requests suggest. First, data center customers frequently engage in venue shopping, submitting interconnection requests in multiple utility service areas in search of

⁹⁹ See *supra* note 96.

1 the most competitive rates. As a result of venue shopping, not all project
2 developers that succeed will choose South Carolina as their location or DESC as
3 their service provider. Second, not all projects succeed financially, and even
4 projects that eventually move forward may be delayed. Third, prospective
5 customers may overestimate their peak load in their initial requests, since the lack
6 of financial commitment at this stage gives them little incentive to forecast
7 accurately.

8 DESC has not signed any new contracts with large-load customers since January
9 2024.¹⁰⁰ This further underscores that the pace of large-load growth in its service
10 area is relatively slow, and that the amount of load growth in the High Load
11 forecast is unlikely to materialize by 2031.

12 **Q How could DESC improve its methodology for the High Load forecast?**

13 **A** DESC uses the High Load forecast in two of its sensitivity cases and one of the
14 supplemental cases.¹⁰¹ While these cases may be useful for illustrating resource
15 needs under hypothetical future load growth, DESC should keep in mind that this
16 level of load growth is unlikely to materialize on this timeframe. Many utilities
17 are adopting probabilistic approaches to developing large-load sensitivity
18 forecasts, which discount speculative load to account for the fact that not all
19 customers in a utility's large-load pipeline will ultimately materialize.¹⁰² DESC
20 should adopt a similar approach for its High Load forecast, to make this forecast

¹⁰⁰ DESC Response to Sierra Club Data Request No. 3-05 (attached as Exhibit LM-20).

¹⁰¹ DESC 2026 IRP at 10-11.

¹⁰² See, e.g., Figure 16 in Energy Systems Integration Group (ESIG), *Forecasting for Large Loads: Current Practices and Recommendations* (Dec. 2025), available at: <https://www.esig.energy/wp-content/uploads/2026/02/ESIG-Large-Loads-Forecasting-report-2025.pdf>.

1 more realistic and useful for planning purposes. Importantly, DESC should
2 incorporate probabilistic methodologies into its High Load sensitivity only, and
3 not the base load forecast. For its base load forecast, DESC should continue its
4 current practice of including only large-load customers with signed contracts for
5 service.

6 **Q Does DESC currently have a large-load tariff?**

7 **A** No. DESC does not currently have a large-load tariff.¹⁰³ It should proactively
8 establish such a tariff to protect ratepayers if additional large load does begin to
9 materialize in its service area.

10 Some general principles for large-load tariff design include the following:

- 11 • Requirement that load over a certain MW threshold—as measured at an
12 individual facility, or across multiple facilities owned by the same
13 company—be on a large-load customer tariff;
- 14 • Commitment for tariff participants to pay, at a minimum, the cost of
15 incremental generation that would not be needed “but for” the facility for a
16 substantial portion of the generation asset(s)’ life, plus a portion of system
17 embedded costs;
- 18 • Minimum take requirements/minimum monthly demand based on
19 contracted capacity, collateral requirements, minimum contract term
20 (years), and exit fees;
- 21 • Incentives for demand response, demand flexibility, interruptible load, and
22 energy efficiency, for facilities where these measures are feasible;

¹⁰³ DESC Response to Sierra Club Data Request No. 2-10 (attached as Exhibit LM-21).

- 1 • Commitment on the part of the utility or load-serving entity to develop
2 renewable energy resources consistent with jurisdictional goals as well as
3 the customer's corporate commitments (*e.g.*, through clean energy tariffs);
- 4 • Payment from the tariff participants of their contribution to embedded
5 costs plus their full incremental costs to build out distribution,
6 transmission, and firm gas infrastructure; and
- 7 • Additional investment in community, economic development, and low-
8 income programs.

9 DESC is participating in Docket No. 2026-138-E, an informational docket opened
10 for the purpose of gathering comments on large-load issues in South Carolina.¹⁰⁴
11 The Company should use the informational docket as an opportunity to develop a
12 more detailed plan for its large-load tariff based on the above principles.

13 **6. DESC SHOULD INCREASE SOLAR AND BATTERY BUILD LIMITS SO THAT ITS IRP**
14 **MODELING FAIRLY COMPARES RENEWABLE ADDITIONS AGAINST FOSSIL**
15 **RESOURCES, AND IT SHOULD INCREASE THE AMBITION OF ITS DSM SCENARIOS.**

16 **Q Do you have any concerns with the Company's representation of solar and**
17 **battery storage in its IRP modeling?**

18 **A Yes. To identify the lowest-cost and lowest-risk portfolio for ratepayers, it is**
19 important for DESC's modeling to capture the full benefits of renewables, battery
20 storage, and DSM. Limitations in DESC's modeling, described below, currently
21 prevent it from identifying the full potential for economic renewable additions in
22 DESC's service area.

¹⁰⁴ *Id.*

1 **Q** **Please explain your concern with the annual solar build limit DESC used in**
2 **its modeling.**

3 **A** DESC used an annual build limit of 300 MW for solar resources (including both
4 standalone and hybrid solar) throughout the study period.¹⁰⁵ Depending on the
5 case, the model added the maximum annual solar additions in seven to 22 years
6 out of the [REDACTED] period during which it had the ability to select new solar
7 [REDACTED].¹⁰⁶ In four cases, the model added the maximum amount of solar in
8 all years between [REDACTED].¹⁰⁷ When the model adds the maximum amount
9 of solar, this indicates that the build limit is acting as a ceiling, and it may have
10 been economic to add more solar capacity if the model had been able to select it.

11 While it may be appropriate to use build limits in the short term to represent
12 DESC's ability to interconnect new resources, the limits should not be static
13 throughout the entire study period. DESC should work to improve any bottlenecks
14 in its interconnection process, and the annual build limit should increase over time
15 to represent these improvements.

16 DESC implies, however, that the build limit is related to the market availability of
17 solar rather than its own interconnection process, sharing in discovery that the
18 solar build limits are "not related to DESC operational efficiency [but] rather
19 instead reflect what the market has been able to achieve."¹⁰⁸ This ignores DESC's
20 role in signaling to the market that there is high demand for solar. As a major
21 purchaser of solar, DESC can shape the market and is not bound by the market's
22 historical performance. As a starting point, DESC should increase the annual solar

¹⁰⁵ Neely Direct at 33.

¹⁰⁶ 2026 IRP PLEXOS Results and Workbooks, "2026 IRP Summary.xlsx."

¹⁰⁷ 2026 IRP PLEXOS Results and Workbooks, "2026 IRP Summary.xlsx."

¹⁰⁸ DESC Response to Sierra Club Data Request No. 2-15 (attached as Exhibit LM-22).

1 build limit in its model so that it will have better information about how much
2 solar would be economic to add during the study period.

3 **Q Please explain your concern with the cumulative build limit DESC used for**
4 **four-hour battery storage in its modeling.**

5 **A** DESC limited cumulative additions of four-hour battery storage to 1,200 MW.¹⁰⁹
6 After that point, the model could select an additional 800–1,600 MW of eight-
7 hour storage.¹¹⁰ The model had no means of selecting six-hour storage.¹¹¹ The
8 build limit for four-hour storage was binding in half the cases DESC modeled
9 (seven out of 14 cases).¹¹² DESC stated that it modeled this cumulative build limit
10 because the marginal firm capacity contribution of four-hour batteries declined
11 below 50 percent beyond 1,200 MW of total installed capacity.¹¹³

12 As Witness Chavin discusses in her testimony, this methodology artificially limits
13 the total amount of storage that the model is able to add. It would be more
14 accurate for DESC to model multiple resource tranches with different costs and
15 accreditation characteristics, rather than using a cumulative build limit. This
16 would allow the model to make economically optimized decisions about the
17 amount of four- and eight-hour storage to add, taking into account the declining
18 accreditations at higher levels of deployment. To further improve its

¹⁰⁹ DESC Response to ORS Data Request No. 2-14 (attached as Exhibit LM-23).

¹¹⁰ *Id.*

¹¹¹ DESC 2026 IRP at 41.

¹¹² 2026 IRP PLEXOS Results and Workbooks, “2026 IRP Summary.xlsx.”

¹¹³ DESC Response to ORS Data Request No. 2-14 (Exhibit LM-23); DESC Response to ORS Data Request No. 3-07 (attached as Exhibit LM-24).

1 representation of battery storage, DESC should additionally model six-hour
2 storage as a resource option in PLEXOS.

3 **Q Do you have any other concerns with DESC's modeling of battery storage?**

4 **A** As Witness Chavin discusses, DESC is applying ELCC assumptions that were
5 developed for 2028 throughout the entire modeling horizon, which extends to
6 2050. This may lead to under-accreditation of battery resources in the future, as
7 system conditions—including the load and resource mix—evolve. As Witness
8 Chavin recommends, DESC should conduct ELCC analyses for future years to
9 evaluate how these values may change over time.

10 **Q How did DESC model DSM in its IRP?**

11 **A** DESC modeled high, medium, and low trajectories for DSM, including both
12 energy efficiency and demand response. DESC modeled energy efficiency as a
13 load adjustment, while it modeled demand response as a supply-side resource.¹¹⁴
14 All the core scenarios used the Medium DSM trajectory, but DESC also
15 completed a set of DSM sensitivities that examine the impact of the High and
16 Low DSM trajectories.¹¹⁵ The Medium DSM case assumes that DESC can
17 achieve a 0.52 percent reduction in annual energy sales (relative to 2024 gross
18 sales), while the High DSM case assumes a 0.69 percent reduction and the Low
19 DSM case assumes a 0.43 percent reduction.¹¹⁶

¹¹⁴ DESC Response to Sierra Club Data Request No. 1-16 (attached as Exhibit LM-25).

¹¹⁵ DESC 2026 IRP at 10.

¹¹⁶ *Id.* at 57.

1 **Q What were the results of DESC’s DSM sensitivities?**

2 **A** DESC’s modeling shows that the High DSM sensitivity has a lower levelized net
3 present value (“LNPV”) of the revenue requirement than the Medium DSM
4 scenario by \$12 million (Table 6).¹¹⁷ DESC should, at a minimum, pursue this
5 High DSM trajectory, since its own modeling shows that doing so would yield
6 cost savings for ratepayers.

7 **Table 6. DESC LNPV results for Medium and High DSM sensitivities**

Sensitivity	30-Year LNPV (\$M)	Difference in 30 Year LNPV (\$M)	Percent difference (%)
Medium DSM	\$2,389	—	—
High DSM	\$2,377	(\$12)	-1%

8 *Source: DESC 2026 IRP at 57.*

9 In its 2026 IRP, DESC dismisses its DSM sensitivity results, saying that “the
10 differences between the three DSM cases were too small to create meaningful
11 results.”¹¹⁸ While DESC should not ignore the savings that its High DSM
12 trajectory already offers, I also recommend that it study a DSM trajectory that is
13 more ambitious than the current High DSM trajectory, to test whether this would
14 yield further savings.

15 **Q How does the level of energy efficiency in DESC’s High DSM trajectory align**
16 **with what other U.S. states are achieving?**

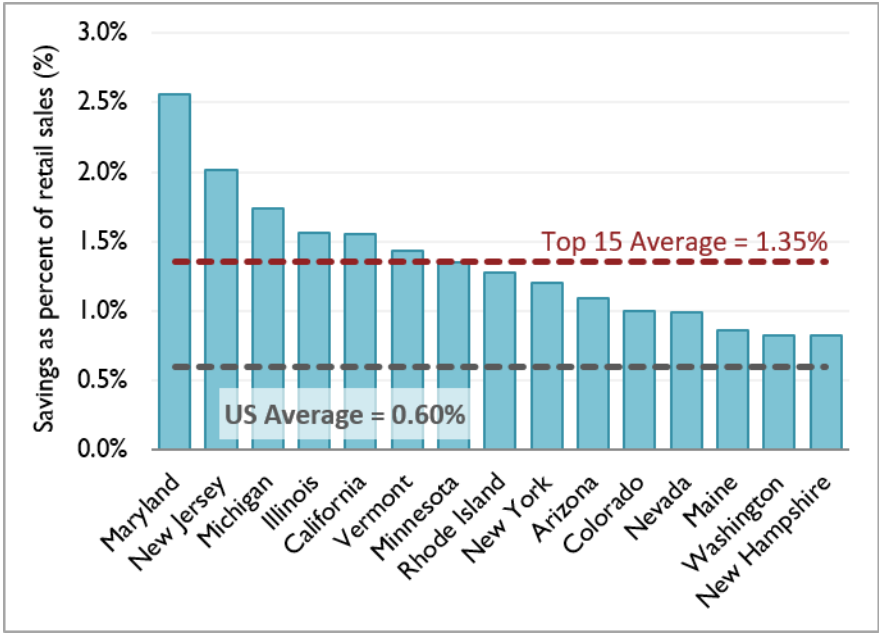
17 **A** Other U.S. states regularly achieve higher levels of savings than what DESC
18 modeled in its High DSM trajectory. In 2023 (the most recent year with data
19 available), the average savings from energy efficiency across all U.S. states was
20 0.6 percent, with the top 15 states achieving average savings of 1.35 percent

¹¹⁷ *Id.*

¹¹⁸ *Id.*

(Figure 5). This shows that there is room for DESC to increase the level of ambition in the High DSM trajectory while still staying in line with what utilities in other states are achieving.

Figure 5. Data on energy efficiency savings achieved by top 15 U.S. states in 2023



Source: American Council for an Energy-Efficient Economy (ACEEE), 2025 State Energy Efficiency Scorecard Data (Mar. 18, 2025), available at: <https://www.aceee.org/research-report/u2502>.

Q In summary, what are the recommendations in your testimony?

A I recommend that DESC firmly commit to retiring Wateree as soon as the Canadys CC comes online and retiring Williams by year-end 2034. I demonstrate that DESC has sufficient generating capacity to meet its load and retire the plants on schedule, and I explain the costs and risks of further delaying the retirement of either plant. I also recommend that the Commission require DESC to study whether it would be economic to retire solid-fuel-burning equipment at Cope, including multiple potential methods for firming Cope’s capacity without coal-burning.

1 Regarding DESC's load forecast, I recommend that the Company continue its
2 current practice of including only large-load customers with signed contracts in its
3 base load forecast. To protect existing ratepayers, I recommend that DESC
4 proactively develop a large-load tariff that commits large-load customers to
5 paying their contribution to embedded costs plus their full incremental cost of
6 service before assets are built to serve them.

7 Finally, I recommend several improvements to DESC's modeling framework to
8 more accurately capture the benefits of renewables, battery storage, and DSM
9 resources, including increasing annual and cumulative build limits and modeling a
10 more ambitious High DSM trajectory.

11 **Q Does this conclude your testimony?**

12 **A Yes.**

Exhibit LM-1:

Resume of Lucy Metz

Lucy Metz, Senior Associate

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lmetz@synapse-energy.com

PROFESSIONAL EXPERIENCE

Synapse Energy Economics Inc., Cambridge, MA. *Senior Associate* Apr. 2025–Present; *Associate* Apr. 2023–Apr. 2025; *Research Associate*, Jul. 2022–Apr. 2023

- Provides expert research, analysis, and deliverables on energy-sector issues, including electric utility resource planning and power plant economics, building decarbonization, industrial sector emissions, and state and local climate policy
- Develops testimony and comments in integrated resource planning dockets, rate cases, certificates of need, and environmental compliance investment dockets across the country
- Conducts analysis using Synapse's Building Decarbonization Calculator (BDC), a stock turnover model that calculates the emissions and energy impacts of heat pump adoption
- Produces data visualization tools in R, including interactive webtool of U.S. industrial emitters
- Assists with power sector dispatch modeling using EnCompass

Laboratory of Dr. Alexander Barron, Department of Environmental Science and Policy, Smith College, Northampton, MA. *Research Assistant*, Jun. 2020–May 2022

- Co-authored paper on carbon neutrality initiatives in higher education
- Designed data visualization and analysis for USREP-ReEDS modeling of Clean Air Act policy
- Calculated CO₂ emissions reductions achievable under Massachusetts climate legislation and drafted white paper with results

Co-Equal, Washington, D.C. *Policy Intern*, Feb. 2021–Mar. 2022

- Performed analysis on a wide range of policy topics requested by members of Congress
- Finalized economic modeling study for public release and presented results

EDUCATION

Smith College, Northampton, MA

Bachelor of Science in Engineering Science, *Magna Cum Laude with Highest Honors*, 2022

SKILLS

Computer: Excel, R, EnCompass, MATLAB, Mathematica, ENERGY STAR Portfolio Manager

Languages: Spanish (proficient)

TESTIMONY

Arkansas Public Service Commission (Docket No. 26-001-U): Direct testimony of Lucy Metz in the matter of the Application of Entergy Arkansas, LLC for Approval of Changes in Rates for Retail Electric Service. On behalf of the Southern Renewable Energy Association. Aug. 19, 2026.

Kentucky Public Service Commission (Docket No. 2026-00001): Direct testimony of Lucy Metz in the matter of the Electronic Application of Kentucky Power Company For 1) A Certificate of Public Convenience and Necessity to Construct a Mechanical Draft Cooling Tower at the Mitchell Plant, 2) Approval of Certain Regulatory and Accounting Treatments, and 3) All Other Required Approvals and Relief. On behalf of Sierra Club. May 15, 2026.

Public Service Commission of South Carolina (Docket No. 2025-323-E): Surrebuttal testimony of Lucy Metz in the matter of the Joint Application of South Carolina Public Service Authority and Dominion Energy South Carolina, Inc. for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of an Advanced Class Combined Cycle Generating Plant and Associated Facilities in Colleton County, South Carolina. On behalf of Sierra Club. Mar. 17, 2026.

Public Service Commission of South Carolina (Docket No. 2025-323-E): Direct testimony of Lucy Metz in the matter of the Joint Application of South Carolina Public Service Authority and Dominion Energy South Carolina, Inc. for a Certificate of Environmental Compatibility and Public Convenience and Necessity for the Construction and Operation of an Advanced Class Combined Cycle Generating Plant and Associated Facilities in Colleton County, South Carolina. On behalf of Sierra Club. Feb. 17, 2026.

Georgia Public Service Commission (Docket Nos. 56298 and 56310): Direct testimony of Lucy Metz in the matter of Georgia Power Company's Application for Certification of the 2029–2031 All-Source Capacity RFP and Georgia Power Company's Application for the Certification of Supplemental Resources for 2028–2031 Capacity. On behalf of Sierra Club and the Southern Alliance for Clean Energy (SACE). Nov. 12, 2025.

North Carolina Utilities Commission (Docket Nos. E-2, Sub 1349 and EC-67, Sub 57): Direct testimony of Lucy Metz in the matter of the Joint Application of Duke Energy Progress, LLC, and North Carolina Electric Membership Corporation for a Certificate of Public Convenience and Necessity to Construct a 1,360 MW Natural Gas-Fired Combined Cycle Electric Generating Facility in Person County, North Carolina. On behalf of the Southern Alliance for Clean Energy (SACE). Jun. 9, 2025.

Kansas Corporation Commission (Docket No. 25-EKCE-207-PRE): Settlement testimony of Lucy Metz in Support of Unanimous Partial Settlement on Solar Facility and Testimony in Opposition to Non-Unanimous Partial Settlement on Natural Gas Facilities. On behalf of Citizens' Utility Ratepayer Board (CURB). Apr. 17, 2025.

Kansas Corporation Commission (Docket No. 25-EKCE-207-PRE): Direct testimony of Lucy Metz in the matter of the Petition of Evergy Kansas Central, Inc., Evergy Kansas South, Inc., and Evergy Metro, Inc. for Determination of the Ratemaking Principles and Treatment that Will Apply to the Recovery in Rates

of the Costs to Be Incurred for Certain Electric Generation Facilities under K.S.A. 66-1239. On behalf of Citizens' Utility Ratepayer Board (CURB). Mar. 14, 2025.

Public Service Commission of Wisconsin (Docket No. 6690-UR-128): Surrebuttal testimony of Lucy Metz in the matter of the Application of Wisconsin Public Service Corporation for Authority to Adjust Electric and Natural Gas Rates. On behalf of Sierra Club. Sept. 18, 2024.

Public Service Commission of Wisconsin (Docket No. 6690-UR-128): Direct testimony of Lucy Metz in the matter of the Application of Wisconsin Public Service Corporation for Authority to Adjust Electric and Natural Gas Rates. On behalf of Sierra Club. Aug. 19, 2024.

Georgia Public Service Commission (Docket No. 55378): Direct Testimony of Devi Glick and Lucy Metz in re: Georgia Power Company's 2023 Integrated Resource Plan Update. On behalf of Sierra Club. Feb. 15, 2024.

PUBLICATIONS

Eash-Gates, P., S. Koester, L. Metz, J. Hittinger, A. Hopkins, I. Weiss. 2025. *Recasting the Future: Policy Approaches to Drive Cement Decarbonization*. Synapse Energy Economics for Clean Air Task Force.

Glick, D., T. Gyalmo, D. Karabakal, L. Metz, C. Resor. 2024. *Review of Tennessee Valley Authority's Draft 2025 Integrated Resource Plan*. Synapse Energy Economics for Sierra Club.

DeLeon, S., K. Takahashi, E. Carlson, A. S. Hopkins, S. Kwok, J. Litynski, C. Mattioda, L. Metz. 2024. *Minnesota Building Decarbonization Analysis: Equitable and cost-effective pathways toward net-zero emissions for homes and businesses*. Synapse Energy Economics for Clean Heat Minnesota.

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Resume updated August 2026

Exhibit LM-2:

DESC Response to Sierra Club Data Request No. 2-05

DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E

REQUEST NO. 2-05:

Regarding past spending at Wateree and Williams to comply with the 2020 and 2024 ELG Rules:

- a. What capital expenditures has the Company made in the past at Wateree to comply with the 2020 ELG Rule?
- b. What capital expenditures has the Company made in the past at Williams to comply with the 2020 ELG Rule?
- c. What capital expenditures has the Company made in the past at Wateree to comply with the 2024 ELG Rule?
- d. What capital expenditures has the Company made in the past at Williams to comply with the 2024 ELG Rule?
- e. What are the annual operations and maintenance expenses for ELG compliance equipment at Williams and Wateree? Please provide expenses broken out by equipment group for each plant.

RESPONSE NO. 2-05:

- a. Approximately \$75.7M as of 5/31/2026.
- b. Approximately \$161.6M as of 5/31/2026.
- c. The Company has made no expenditures to comply with the 2024 ELG Rule. Obligations under the 2024 ELG Rule will not become effective until incorporated into an NDPES permit.
- d. The Company has made no expenditures to comply with the 2024 ELG Rule. Obligations under the 2024 ELG Rule will not become effective until incorporated into an NDPES permit.
- e. The Wateree and Williams ELG compliance equipment was placed in service December 2025. The Company has not operated either plant's ELG compliance equipment for a sufficient time to determine annual operation and maintenance expenses.

Exhibit LM-3:

DESC Response to ORS Data Request No. 2-05

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
SECOND AND CONTINUING REQUEST FOR PRODUCTION
OF BOOKS, RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 2-05:

Regarding Effluent Limitations Guidelines upgrades for Williams and Wateree:

- a) Describe the upgrades that have already been completed or are planned for the future. Provide reference dates for when work was completed or is anticipated to be completed in the future.
- b) Provide all assumptions, data inputs, and engineering criteria the Company used to develop both the "Wateree Zero Liquid Discharge" ("ZLD") and "Williams ZLD" modeled in PLEXOS.

RESPONSE NO. 2-05:

- a) DESC has installed systems at Wateree and Williams to comply with Effluent Guideline Limitations for FGD Wastewater and Bottom Ash Transport Water. Systems treating the Wateree and Williams FGD Wastewater discharge streams to meet 2020 ELG BAT discharge limits were completed by the end of 2025. Systems managing Bottom Ash Transport Water (BATW) to meet the 2020 ELG BAT High Recycle System up to 10% Volume Discharge Limitation were completed by the end of 2025.
- b) The company used order of magnitude cost for ZLD systems at Wateree and Williams based on cost estimates from a ZLD OEM with experience performing projects at Wateree and Williams (\$100M for each plant).

PERSON RESPONSIBLE: Jack Robinson

Exhibit LM-4:

DESC Response to Sierra Club Data Request No. 1-07
(provided in Docket No. 2025-9-E)

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2025-9-E**

REQUEST NO. 1-07:

Please refer to page 8 of DESC's 2025 IRP Update, which states: "The cost of Wateree ELG compliance is modest compared to the annual value of the 684 MW of firm, dispatchable capacity that the plant provides. DESC anticipates its ELG upgrades to be completed at Wateree by the end of 2028 and at Williams by the end of 2025."

- b. What are the total expected capital costs associated with ELG compliance at Wateree (including all prior, current, and future ELG capital costs)?
 - a. Please provide all documentation showing an itemized breakdown of the ELG-related capital costs at Wateree, and DESC's timeline for incurring those costs.
- c. What are the total expected operations & maintenance ("O&M") costs associated with ELG compliance at Wateree (including all prior, current, and future ELG O&M costs)?
 - a. Please provide all documentation showing an itemized breakdown of the ELG-related O&M costs at Wateree, and DESC's timeline for incurring those costs.
- d. Please provide any cost-benefit analyses that quantitatively compares the costs of ELG compliance at Wateree to the "value of the 684 MW of firm, dispatchable capacity" from the plant.

RESPONSE NO. 1-07:

7.b

Total Expected Costs for Wateree ELG compliance \$250M

2012 – ELG Bottom Ash Remote Submerged Flight Conveyor \$25M

2015 – 2028 – ELG FGD WW Compliance \$200M

2029 – ZLD Compliance \$25M

7.c

Expected O&M costs

The final technology for ELG FGD WW treatment has not been finalized. O&M cost estimates have not been developed for Wateree.

7d. When the energy provided by Wateree is valued at the DESC avoided cost of \$38.05/MWh, Wateree provides \$91.2M of value to customers per year. (40%

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2025-9-E**

Avg Capacity Factor x 8760 hrs x 684 MW x \$38.05). Total ELG costs at \$250M will cost customers \$32.65M/yr ($\$250\text{M} \times 13.06\%$ fixed charge rate). $\$91.2\text{M} - \$32.65\text{M} = \$58.55\text{M}$ net value per year. In addition, the plant provides extremely valuable reliability, transmission, operational flexibility and ancillary service values.

Exhibit LM-5:

DESC Response to Sierra Club Data Request No. 2-03

DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E

REQUEST NO. 2-03:

Refer to DESC's response to Sierra Club Data Request No. 1-07 in Docket No. 2025-9-E, which states that installing a ZLD system at Wateree will have a capital cost of \$25 million and will take place in 2029. Also refer to DESC's response to Sierra Club Data Request No. 1-15 in this docket, which states that installing a ZLD system at Wateree will have a capital cost of \$100 million.

- a. Please confirm that Company's capital cost estimate for a ZLD system at Wateree has quadrupled since the 2025 IRP Update docket.
- b. Please explain why the ZLD cost estimate has increased since the time of the 2025 IRP Update docket.
- c. Is the Company still planning to install a ZLD system at Wateree in 2029? Please explain.

RESPONSE NO. 2-03:

- a. The Company's current capital cost estimate for a ZLD system at Wateree is \$100 million.
- b. Additional scope and cost information provided by technology providers required the ZLD cost estimate revision increase.
- c. The Company has made no expenditures to comply with the 2024 ELG Rule. Obligations under the 2024 ELG Rule including ZLD will not become effective until incorporated into an NDPES permit.

Exhibit LM-6:

DESC Response to ORS Data Request No. 1-32

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
FIRST AND CONTINUING REQUEST FOR BOOKS,
RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 1-32:

Provide the steps the Company took to allow the “model to pick the optimum dates” for the Optimized Retirements – Reference Build Plan and Optimized Retirements – High Load Build Plan as discussed on page 59 of the 2026 IRP.

- a) Why did the Company’s 2026 Reference Build Plan have retirement dates that varied from the Optimized Retirements – Reference Build Plan? Explain all factors and information used to determine the retirement dates in the 2026 Reference Build Plan.
- b) Provide any studies, analyses, presentations or other documents where the 'Preferred Portfolio' was compared against the 'Optimized Retirement – Reference Build Plan'.

RESPONSE NO. 1-32:

For retirement optimization, DESC set the must retire by date equal to the depreciation study estimated probable retirement date then let the model choose any retirement date up to the must retire by date. For Williams, the must retire by date used was 2047 and for Wateree it was 2045. Additional costs for EPA ELG rule’s zero liquid discharge were modeled if the unit were operated beyond 2034.

- a) There are a number reasons that the optimized retirement dates may not be appropriate. The Company modeled the cost for zero liquid discharge to be \$100M for each plant but that estimate may be materially understated. A significant effort and cost will be required to refine the estimate. If EPA ELG rules are not modified and DESC determines the plants should run past 2034, the decision regarding zero liquid discharge will be made at that time. Secondly, in 2034 Williams will be 61 years old and Wateree will be 64 years old and system reliability may dictate replacing these units. Thirdly, the availability and cost of fuel past 2034 could dictate retirement of coal generation. For current planning purposes, the appropriate retirement dates are those modeled in the 2026 Reference Build Plan.
- b) No comparisons have been made.

PERSON RESPONSIBLE: James W. Neely

Exhibit LM-7:

DESC Response to Sierra Club Data Request No. 1-08
(provided in Docket No. 2025-9-E)

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2025-9-E**

REQUEST NO. 1-08:

Please refer to Dominion's 2021 NPDES permit renewal application (Permit No. SC0003883) for Williams, which describes Effluent Guidelines in Attachment A.

- a. What are the total expected capital costs associated with ELG compliance at Williams (including all prior, current, and future ELG capital costs)?
 - i. Please provide all documentation showing an itemized breakdown of the ELG-related capital costs at Williams, and DESC's timeline for incurring those costs.
- b. What are the total expected operations & maintenance ("O&M") costs associated with ELG compliance at Williams (including all prior, current, and future ELG O&M costs)?
 - i. Please provide all documentation showing an itemized breakdown of the ELG-related O&M costs at Williams, and DESC's timeline for incurring those costs.

RESPONSE NO. 1-08:

- a. \$230M for ELG compliance prior, current, future
2025 - \$165M for ELG FGD
2025 - \$15M for ELG BATW
Future - \$50M for BATW, Leachate, ZLD
- b. Expected annual O&M for ELG FGD \$4.5 - \$5M starting 2026
Technologies for BATW, Leachate, ZLD not determined, no O&M estimate developed

Exhibit LM-8:

DESC Response to Sierra Club Data Request No. 1-15

DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2026-9-E

REQUEST NO. 1-15:

Regarding compliance with the 2024 ELG Rule¹ at Wateree and Williams:

- a. Explain what modifications, including but not limited to installation of Zero Liquid Discharge (ZLD) systems, will be necessary at Wateree and Williams to comply with the 2024 ELG Rule.
- b. Provide the capital expenditures that will be necessary for these modifications, and the year the capital expenditures will be incurred.
- c. Provide the annual operations and maintenance cost for the environmental modifications once they are completed.
- d. If Wateree and/or Williams retire before year-end 2034, could any of the costs in part (b) be avoided?
 - a. If yes, please specify which of the costs could be avoided.
 - b. If not, please explain why not.

RESPONSE NO. 1-15:

- a. The current environmental FGD and BATW installations at Wateree and Williams comply with the 2024 rules. If the units operate beyond 2034, installation of ZLD will be required
- b. Current estimate for installation of ZLD in the IRP model is \$100 million.
- c. Annual operations and maintenance cost estimates for ZLD are not developed.
- d. If Wateree and Williams retire by the end of 2034, installation of ZLD will not be necessary. Retirement of Wateree and Williams is dependent upon having replacement generation to enable the company to continue reliably serving customer demand.

Exhibit LM-9:

DESC Response to Sierra Club Data Request No. 2-01

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 2-01:

Regarding compliance with the 2024 Effluent Limitations Guidelines (ELG) Rule at Wateree and Williams:

- a. Has DESC already completed any of the expenditures necessary to install a Zero Liquid Discharge (ZLD) system at either Wateree or Williams?
 - i. If so, specify how much DESC has spent to date on the ZLD system, and how much it plans to spend in the future, at both plants.
- b. When would DESC need to make a final decision about whether to move forward with a ZLD system at Wateree and/or Williams in order to have the system in place for compliance with the 2024 ELG Rule? Please explain.

RESPONSE NO. 2-01:

- a. The Company has made no expenditures at Wateree or Williams to comply with the 2024 ELG Rule. Obligations under the 2024 ELG Rule will not become effective until incorporated into an NDPES permit.
- b. Obligations under the 2024 ELG Rule will not become effective at Wateree or Williams until incorporated into an NDPES permit. The date to meet these obligations will be included in the NPDES permit.

Exhibit LM-10:

DESC Confidential Response to ORS
Data Request No. 1-25, “ORS 1-25 Build Limits and
Constraints CONFIDENTIAL.xlsx.”

This exhibit has been redacted
in its entirety.

Exhibit LM-11:

DESC Response to Sierra Club Data Request No. 1-12

DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2026-9-E

REQUEST NO. 1-12:

Regarding sustaining capital expenditures and fixed operation and maintenance costs for each of the Company's coal-fired power plants:

- a. Provide the Company's capital expenditure plan for the next ten years, or until the plant is scheduled to retire.
- b. Explain how the Company estimated the ongoing sustaining capital costs of maintaining its coal-fired power plants and how the Company entered these costs into PLEXOS.
- c. If sustaining capital costs were not entered into the models, please explain how they were incorporated into the revenue requirement and provide all associated workbooks.

RESPONSE NO. 1-12:

- a. Please see the spreadsheet entitled "FixedFuel FOM OnGoingCapital datasheet builder 2025_11_01 CONFIDENTIAL.xlsx" located in folder "2026 IRP PLEXOS Results and Workbooks\Source Data CONFIDENTIAL\Fixed Cost (O&M, FT, Capital)" which was provided to intervenors with a Confidentiality Agreement when DESC filed its 2026 IRP.
- b. The Company's capital cost budget was used through year 2032. Post 2032, the average annual capital cost was escalated at 2%/year.
- c. N/A

Exhibit LM-12:

DESC Response to Sierra Club Data Request No. 2-13

DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E

REQUEST NO. 2-13:

Please refer to the Company's response to Sierra Club Data Request No. 1-12, which states that coal plant sustaining capex escalates at 2% per year after 2032.

- a. Does the 2% escalation represent the impact of inflation, or does this indicate that costs are increasing in real dollars? Please explain.
- b. Did the Company include the capital and operating costs for ZLD systems at Wateree and Williams in PLEXOS in the optimized retirement scenarios? Explain why or why not.
- c. How did the Company account for the increasing age of Wateree and Williams in its projections of sustaining capital expenditures, fixed operations and maintenance, and unit availability? Please explain.

RESPONSE NO. 2-13:

- a. Inflation.
- b. Only capital cost for ZLD was included. Operating costs were not included and are not known. See DESC Response to Seirra Club No. 2-02.
- c. No adjustment is made to capital costs, FOM, or unit availability because of the aging of the plants. Multiple factors apart from age drive the costs and availability factors for the plants.

Exhibit LM-13:

DESC Response to Sierra Club Data Request No. 2-02

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 2-02:

Please refer to the Company's response to Sierra Club Data Request No. 1-15, part (c). If the Company has not developed an estimate of annual operations and maintenance costs for the ZLD systems at Wateree and Williams, how did it model these costs in PLEXOS in the optimized retirement scenarios? Please explain.

RESPONSE NO. 2-02:

DESC did not model annual operations and maintenance costs for the ZLD systems at Wateree and Williams. DESC has not quantified the operations and maintenance costs for ZLD.

Exhibit LM-14:

DESC Response to Sierra Club Data Request No. 2-12,
“Sierra Club r1.xlsx.”

DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E

REQUEST NO. 2-12:

Regarding solid-fuel burning capabilities at the Cope power plant:

- a. For each of the past ten years, please provide data on how many MWh the plant generated from coal and from gas.
- b. What modifications would be necessary to convert Cope to burn gas only? Please explain.
- c. How much does it cost DESC to maintain solid-fuel burning capabilities at Cope? Please provide historical data on expenditures to maintain solid-fuel burning equipment for each of the past five years, and projected annual expenditures for as many years as the Company has data available.
- d. Would DESC need to obtain firm gas transport for Cope to convert the plant to burn gas only? Explain why or why not.
- e. How much would it cost to obtain firm gas transport at Cope and on what timeline would this be achievable? Please explain.

RESPONSE NO. 2-12:

- a. See attached "Sierra Club r1.xlsx."
- b. None. The plant is already capable of burning gas only.
- c. DESC is not in possession of information responsive to this request. DESC does not discretize operation and maintenance costs between the natural gas and solid-fuel firing equipment for the facility.
- d. No, but only on an interruptible basis. DESC Power Generation does not currently hold sufficient firm gas transportation to reliably supply natural gas to Cope during peak winter periods.
- e. Using the most recent Firm Transportation cost available, the yearly cost for firm gas transportation necessary to run Cope exclusively on gas, if available, would be approximately \$100M per year currently. DESC has no information concerning the timeline for acquiring such firm gas transportation capacity.

COPE	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Coal	1,974,564	2,384,567	1,524,450	969,555	195,437	766,895	735,603	363,711	693,796	456,679
Gas	-	-	194,670	882,054	641,825	827,901	986,951	1,012,261	981,632	1,283,885

Exhibit LM-15:

DESC Response to ORS Data Request No. 1-03

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
FIRST AND CONTINUING REQUEST FOR BOOKS,
RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 1-03:

Provide historic peak and energy results for the Company for the most recent 10 years.

RESPONSE NO. 1-03:

Year	Peak (MW)	Energy (MWh)
2016	4807	24,625,897
2017	4702	24,108,261
2018	4756	24,902,148
2019	4714	24,061,547
2020	4586	23,110,891
2021	4573	23,471,834
2022	4723	23,833,676
2023	4784	22,935,946
2024	4555	22,881,016
2025	4807	22,981,404

PERSON RESPONSIBLE: James W. Neely

Exhibit LM-16:

DESC Response to ORS Data Request No. 1-02,
“ORS 2026-9-E 1-2e.xlsx.”

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
FIRST AND CONTINUING REQUEST FOR BOOKS,
RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 1-02:

Refer to pages 36-38 of the 2026 IRP which discussed the Company's Load Forecast:

- a) Provide all supporting workpapers, models, and assumptions used to develop the load forecast through the planning horizon.
- b) Describe the methodology used to derive the Low, Reference, and High demand forecasts.
- c) Describe the methodology used to derive the Low, Reference, and High energy forecasts.
- d) Provide all economic parameters used in the load forecasting models (Residential, Commercial, Industrial) including any historic and projected data assumptions that were used. Identify the source of the assumptions and provide any supporting documentation that exists for each. If third party data services were relied on (e.g. Moodys), provide the source data and documentation with inputs and assumptions underlying the forecasts.
- e) Provide a detailed comparison of the load forecast by component (Residential, Commercial, Industrial) between the 2023 Comprehensive IRP, the 2024 IRP Update, the 2025 IRP Update, and the 2026 Comprehensive IRP. As part of the comparison, specifically identify the MW demand and MWh energy impacts of data centers and large economic development loads.
- f) Provide all workpapers, models, and adjustments used to develop the load forecast used in PLEXOS modeling. To the extent that hourly shapes were developed, provide all workpapers reconciling the hourly shape to the annual values provided in summaries provided in Figures 12 and 13.
- g) To the extent the load forecasts presented in the 2026 IRP were different than what was modeled in PLEXOS, explain the differences.

RESPONSE NO. 1-02:

- a) Please see attachments "DR 1-02a Demand Programs List.docx", "DR 1-02a Energy Forecast Document.docx", and "DR 1-02a Load Programs List.docx".
- b) For its high load growth scenario, DESC incorporated the addition of near-term load growth from its analysis of potential but not yet committed economic development prospects in service by 2031 with a ramp starting 2029. Consistent with its 2025 IRP Update, DESC created its low load

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
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- growth scenario by decreasing the reference forecast of annual demand growth by 0.5% percentage points.
- c) See response 1-02b.
 - d) See response 1-02a.
 - e) See attachment "ORS 2026-9-E 1-2e.xlsx".
 - f) See attachments "ORS 2026-9-E 1-2f (Energies).xlsx" and "ORS 2026-9-E 1-2f (Peaks).xlsx".
 - g) The load forecast presented in the 2026 IRP is modeled in PLEXOS. There are no differences.

PERSON RESPONSIBLE: Matthew Crais, Joseph Stricklin, Christian Bailey

[illegible]

Summer IRP 2024	_2024	_2025	_2026	_2027	_2028	_2029	_2030	_2031	_2032	_2033	_2034	_2035	_2036	_2037	_2038
Residential	2353	2387	2418	2448	2478	2507	2535	2563	2591	2619	2646	2675	2704	2731	2758
Commercial	1552	1568	1589	1617	1675	1720	1762	1805	1855	1869	1882	1896	1910	1923	1936
Industrial	790	794	843	849	897	903	909	915	920	926	931	937	942	947	952
Other	49	37	33	27	25	26	34	44	63	85	107	134	159	186	218
Total	4744	4786	4883	4941	5075	5156	5240	5327	5429	5499	5566	5642	5715	5787	5864
Google/Scout			5	70	167	197	225	254	290	290	290	290	290	290	290
Winter IRP 2024	_2024	_2025	_2026	_2027	_2028	_2029	_2030	_2031	_2032	_2033	_2034	_2035	_2036	_2037	_2038
Residential	2605	2640	2672	2705	2736	2767	2798	2829	2859	2889	2920	2951	2981	3011	3041
Commercial	1409	1423	1468	1512	1563	1600	1645	1679	1691	1703	1716	1728	1740	1752	1764
Industrial	695	735	741	782	787	792	797	802	807	811	816	821	825	830	834
Other	76	71	56	42	30	19	9	0	-6	-13	-17	-23	-22	-17	-5
Total	4785	4869	4937	5041	5116	5178	5249	5310	5351	5390	5435	5477	5524	5576	5634
Google/Scout		5	5	89	173	211	236	268	290	290	290	290	290	290	290

Summer IRP 2025	_2025	_2026	_2027	_2028	_2029	_2030	_2031	_2032	_2033	_2034	_2035	_2036	_2037	_2038	_2039
Residential	2386	2435	2470	2501	2531	2561	2591	2620	2649	2677	2704	2728	2752	2774	2797
Commercial	1534	1552	1582	1641	1686	1728	1771	1822	1850	1864	1876	1888	1899	1910	1920
Industrial	776	801	826	876	883	889	894	900	905	911	916	921	927	932	937
Other	38	27	31	21	16	15	17	24	33	49	64	83	100	129	154
Total	4734	4815	4909	5039	5116	5193	5273	5366	5437	5501	5560	5620	5678	5745	5808
Google/Scout		5	70	167	197	225	254	290	305	305	305	305	305	305	305
Winter IRP 2025	_2025	_2026	_2027	_2028	_2029	_2030	_2031	_2032	_2033	_2034	_2035	_2036	_2037	_2038	_2039
Residential	2638	2676	2710	2742	2775	2807	2839	2870	2900	2929	2956	2981	3006	3030	3054
Commercial	1357	1404	1448	1499	1536	1581	1630	1642	1654	1664	1675	1684	1694	1703	1712
Industrial	662	684	728	733	739	744	748	753	758	762	766	771	775	780	784
Other	85	84	74	61	47	35	22	18	10	8	7	6	20	32	52
Total	4742	4848	4960	5035	5097	5167	5239	5283	5322	5363	5404	5442	5495	5545	5602
Google/Scout		5	5	89	173	211	236	268	305	305	305	305	305	305	305

[illegible]

Exhibit LM-17:

DESC Response to Sierra Club Data Request No. 1-06

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 1-06:

Does the Company's load forecast include any load from prospective data center or other large-load customers? Please explain.

RESPONSE NO. 1-06:

No, the base load forecast only includes customers with signed electric service agreements.

Exhibit LM-18:

DESC Response to ORS Data Request No. 2-10

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
SECOND AND CONTINUING REQUEST FOR PRODUCTION
OF BOOKS, RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 2-10:

Refer to the Company's Response to ORS Request No. 1-04.

- a) Provide all recently executed electric service agreements ("ESA") the Company has entered into since the filing of its 2023 Comprehensive IRP.
- b) What actions is the Company planning to execute to place it in a position to meet the resource needs of the high load sensitivity? Does the Company plan to issue any Requests for Information ("RFI") or Requests for Proposals ("RFP") for future resources given the immediate needs identified in the "Near-Term Load Growth Build Plan" and the "Optimized Retirements – High Load Build Plan"?
- c) For all ESAs executed since the filing of 2023 Comprehensive IRP, provide the aggregate load shape or load factor assumptions (e.g., 90%+ flat data center load profiles vs. shifting industrial peaks) utilized in the Near-Term Load Growth Build Plan. Clarify if these large customers are subject to interruptible tariffs or demand-response provisions that were integrated into PLEXOS.

RESPONSE NO. 2-10:

- a) As stated in DESC Response 1-04, the Company has entered into two contracts for large load additions. Both of those agreements have been approved by the Public Service Commission of South Carolina. Please see Docket No. 2023-379-E styled as "Request for Approval of Contract for Electric Service Agreement Between Dominion Energy South Carolina, Inc. and Mallard, LLC." Please also see Docket No. 2023-409-E styled as "Request for Approval of Contract for Electric Service Between Dominion Energy South Carolina, Inc. and Scout Motors, Inc."
- b) The Company's preferred plan is the 2026 Reference build plan which is the Plan the Company plans to execute while carefully monitoring developments in load and retirement decisions. At this time, the Company does not plan to issue any RFIs or RFPs for demands that are not associated with its preferred build plan.
- c) Please see DESC's response 1-04 attachment 'DR ORS 1-4 Mallard Mwh Calcs CONFIDENTIAL.xlsx' for the respective load factor assumptions for the executed contracts included in the 2026 IRP.

PERSON RESPONSIBLE: Christian Bailey

Exhibit LM-19:

Corrected DESC Response to ORS
Data Request No. 3-13

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
THIRD AND CONTINUING REQUEST FOR PRODUCTION
OF BOOKS, RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 3-13:

Referring to the Company's Response to ORS Request No. 1-4:

- a) Provide a copy of the Economic Development Project Activity Report in excel format with any formulae intact.
- b) The column labeled "Activity" in the Economic Development Project Activity Report contains multiple entries. Provide a narrative description of each entry. This should include descriptions for Project Update, Site Visit, request for information ("RFI") Response, Project Announced, RFI request, and any other descriptors used internally by the Company.
- c) If a project has entered into a Letter Agreement, an Electric Service Agreement, or any other type of agreement with DESC, how is that fact noted in the Economic Development Project Activity Report?
 - i. If DESC does not make a notation about any of the agreements discussed in the prior question, explain why not and explain how the Company tracks all of these agreements for projects that are not noted in the Economic Development Project Activity Report. If the Company tracks projects in these categories outside of the Economic Development Project Activity Report, provide the documentation which tracks the project's status.
- d) Provide all copies of all Letter Agreements, Electric Service Agreements, and any other type of agreements for projects over 20 MW that the Company has entered since filing of the 2023 Comprehensive IRP.
- e) Does DESC track projects in a category, referred to as a "late-stage pipeline," or similarly named activity, in which customers are close to signing a Letter Agreement, an Electric Service Agreement, or any other type of agreement with DESC? If the Company tracks projects in this activity outside of the Economic Development Project Activity Report, provide the documentation which tracks the projects' status.
- f) Explain the Company's process of tracking projects as they move from one activity to the next. Provide a flow diagram and explain how the process is followed in the Economic Development Project Activity Report. Also, explain how the Company uses probability assumptions or load materialization likelihood assumptions in moving projects from one activity to the next. In other words, if the Company assumes a project has a high versus a low probability of materializing will it be included in the late-stage pipeline activity category?

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
THIRD AND CONTINUING REQUEST FOR PRODUCTION
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g) Confirm that the Company only includes projects that have signed contracts in the Reference load forecast. Also confirm that the term "signed contracts" is synonymous with the term "signed Electric Service Agreements." If not, explain the difference.

h) The Company's response to ORS Request No. 1-4(i) indicated there was no difference in the economic development methodology between the 2025 IRP Update and the 2026 IRP. Was there any difference between the economic development methodology between the 2023 IRP and the 2025 IRP Update? If so, explain the differences.

i) See the Company's Response to ORS Request No. 1-2(b), which states that in the high load forecast, the Company "incorporates the addition of near-term load growth from its analysis of potential but not yet committed economic development prospects in service by 2031 with a ramp starting 2029." Provide a description of how the analysis was performed to determine which projects were included in the high-load forecast and provide the workpapers, electronically with all formulae intact, to support this analysis. Additionally, provide the workpaper used to create the actual high load forecast that was input into PLEXOS.

RESPONSE NO. 3-13:

a) See part i) below.

b) There are 5 options for "Activity" entry on the Project Activity Report.

- a. Project Update: Any update of activity such as "site is one of two being considered in SC" "Project asked for further clarification on electric service."
- b. RFI Response: Initial project request for information such as electric or natural gas load capacity, time to serve and/or cost to serve.
- c. Site Visit: Project has visited the site.
- d. Project Inactive: A project with no activity within 6 months.
- e. Project Announced: Project has announced its intention to locate in DESC electric or natural gas territory.

c) The Company does not track any letters of agreement (nor is this a common occurrence).

i. See part i) below.

d) DESC is not in possession of any documents responsive to this request.

e) DESC does not track projects in this manner.

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
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f) The projects are tracked based on activity as noted above and in the report. It is not a formal flow process. The Company does not track probability or likelihood.

g) Confirmed.

h) For the high load sensitivity case in the 2025 IRP Update, the Company included additional near-term load growth assumptions associated with potential economic development. This refinement was made in response to the ORS recommendation issued during its review of the Company's 2024 IRP Update and represents a change from the assumptions used in the 2023 IRP.

i) Please refer to attachment "DR1-02a Energy Forecast Document.docx" provided in ORS Request 1-02. Page 13 of this document describes the high-load forecast methodology. Additionally, please see the attachment "DESC ED Project Activity Report CONFIDENTIAL (11-17-25).xlsx", and the response to ORS 1-02 for the high-load forecast workpapers. This response contains confidential information which is being provided pursuant to S.C. Code Ann. § 58-4-55 and is subject to non-disclosure.

PERSON RESPONSIBLE: Morgan Harrell, Matthew Crais, Christian Bailey, Joseph Stricklin

CORRECTED RESPONSE NO. 3-13

a) See part i) below.

b) There are 5 options for "Activity" entry on the Project Activity Report.

- a. Project Update: Any update of activity such as "site is one of two being considered in SC" "Project asked for further clarification on electric service."
- b. RFI Response: Initial project request for information such as electric or natural gas load capacity, time to serve and/or cost to serve.
- c. Site Visit: Project has visited the site.
- d. Project Inactive: A project with no activity within 6 months.
- e. Project Announced: Project has announced its intention to locate in DESC electric or natural gas territory.

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
THIRD AND CONTINUING REQUEST FOR PRODUCTION
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- c) The Company does not track any letters of agreement (nor is this a common occurrence).
 - i. See part i) below.
- d) DESC is not in possession of any documents responsive to this request.
- e) DESC does not track projects in this manner.
- f) The projects are tracked based on activity as noted above and in the report. It is not a formal flow process. The Company does not track probability or likelihood.
- g) Confirmed.
- h) For the high load sensitivity case in the 2025 IRP Update, the Company included additional near-term load growth assumptions associated with potential economic development. This refinement was made in response to the ORS recommendation issued during its review of the Company's 2024 IRP Update and represents a change from the assumptions used in the 2023 IRP.
- i) Please refer to attachment "DR1-02a Energy Forecast Document.docx" provided in ORS Request 1-02. Page 13 of this document describes the high-load forecast methodology. Additionally, please see the attachment "CORRECTED CONFIDENTIAL of DESC ED Project Activity Report (11-17-25) REDACTED", and the response to ORS 1-02 for the high-load forecast workpapers. This response contains confidential information which is being provided pursuant to S.C. Code Ann. § 58-4-55 and is subject to non-disclosure.

PERSON RESPONSIBLE: Morgan Harrell, Matthew Crais, Christian Bailey, Joseph Stricklin

Exhibit LM-20:

DESC Response to Sierra Club Data Request No. 3-05

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
THIRD SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 3-05:

Please refer to the Company's response to Office of Regulatory Staff ("ORS") Data Request No. 1-4, which states: "Only two new large industrial customers included in the load forecast: Mallard, LLC and Scout Motors Inc."

- a. On what dates did these two industrial customers sign contracts for service with Dominion?
- b. Does Dominion have any indication that any other specific large industrial customers intend to join its system in the coming years?
- c. In light of the answer to (b) above, does Dominion anticipate a low likelihood of experiencing its high load forecast scenario? Please explain.

RESPONSE NO. 3-05:

- a. Contract for Electric Service:
 - 1. Mallard, LLC – Effective Date 01-15-2024
 - 2. Scout Motors Inc. - Effective Date 12-04-2023
- b. The Company cannot comment on any prospective customers' intention until a contract for electric service is executed.
- c. Low and high load forecast scenarios are utilized to bound potential future load conditions and the Company does not assign a specific probability to these scenarios.

Exhibit LM-21:

DESC Response to Sierra Club Data Request No. 2-10

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 2-10:

Does DESC currently have a large-load tariff in place?

- a) If so, please provide a copy of the tariff.
- b) If not, explain whether DESC has plans to develop such a tariff in the future.

RESPONSE NO. 2-10:

The Company does not currently have a large-load tariff in place.

- a) N/A
- b) On June 16, 2026, the Company petitioned to intervene in Docket No. 2026-138-E. As part of this docket, the Company will develop and provide comments concerning matters associated with new large load additions in South Carolina.

Exhibit LM-22:

DESC Response to Sierra Club Data Request No. 2-15

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
SECOND SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 2-15:

Please refer to the 300 MW annual solar build limit discussed on page 33 of Witness Neely's direct testimony.

- a. Provide more detail justifying the 300 MW per year annual constraint for solar.
- b. Did the Company model any scenarios with a higher solar build limit?
 - i. If not, why not?
- c. Does DESC expect any forward-going improvements in its operational efficiency that would enable it to increase the quantity of annual solar additions?
 - i. If not, why not?

RESPONSE NO. 2-15:

- a. Please see DESC's Response to ORS No. 1-25.
- b. No.
 - i. There is no benefit in modeling something that is not practical.
- c. The annual solar build constraints are not related to DESC operational efficiency rather instead reflect what the market has been able to achieve. Multiple factors determine a reasonable forecast for what the market can reasonably be expected to support in a utility service area the size of DESC's.

Exhibit LM-23:

DESC Response to ORS Data Request No. 2-14

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
SECOND AND CONTINUING REQUEST FOR PRODUCTION
OF BOOKS, RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 2-14:

Refer to the Company's Response to ORS Request No. 1-25, Attachment titled "ORS 1- 25 Build Limits and Constraints CONFIDENTIAL.xlsx."

- a) Explain why the Company did not model a build limit in the 2025 IRP Update for the generic New CT Aero 4x resource alternative but did so in the 2026 IRP for this resource?
- b) Compared to the 2025 IRP Update, the build limit for the New CT Frame 2x resource doubled. What is the Company's justification for the updated build limit?
- c) Compared to the 2025 IRP Update, the build limit for the New Solar PPA Hybrid resources decreased. What is the Company's justification for the updated build limit?
- d) Compared to the 2025 IRP Update, the build limit for the NewGridBattery4hr resource decreased, what is the Company's justification for the updated build limit?
- e) Compared to the 2025 IRP Update, the build limit for the NewGridBattery4hr Hybrid resource decreased, what is the Company's justification for the updated build limit?
- f) For the New SMR resource the Company showed an availability start date of 1/1/2040 but the "Reason for Constraint" in cell F16 states, "Does not allow the model to build this resource after 1/1/2035." Explain this discrepancy.
- g) Explain why compared to the 2025 IRP Update, the 2024_TIA_pt1 is delayed 5 years.
- h) Provide all internal engineering, interconnection, or supply chain studies that justify why the annual build limits for New Solar PPA Hybrid, NewGridBattery4hr, and NewGridBattery4hr Hybrid decreased relative to the 2025 IRP Update. If no formal studies were conducted, explain the exact qualitative criteria used to determine that the market's capacity to absorb these resources has declined.
- i) Confirm whether the Company ran an unconstrained 'No Build Limit' sensitivity for solar and storage resources to let PLEXOS optimize the portfolio purely on a least-cost basis. If yes, provide the results and the revenue requirement impact. If no, explain why the Company did not test the economic impact of removing the artificial constraints

RESPONSE NO. 2-14:

DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
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- a) In the 2025 IRP Update, the New CT Aero 4x resource was not available for selection in the optimization model so the Max Units Built parameter was not included.
- b) The increase in the build limit for the New CT Frame 2x resource reflects modeling improvements in the 2026 IRP that allowed the Company to evaluate a broader set of resource options and a greater number of units relative to the 2025 IRP Update.
- c) The decrease in build limits for New Solar PPA Hybrid resources reflects the Company's most recent ELCC analysis. This analysis identified a declining marginal firm capacity contribution for 4-hour battery energy storage systems ("BESS") beyond 1,200 MW of total installed capacity. As a result, the Company limited the total amount of 4-hour storage modeled to 1,200 MW and included 800-1600 MW of 8-hour storage because of the higher firm capacity contributions at greater penetration levels. The aggregate build limit for 4-hour storage resources was therefore constrained to approximately 1,200 MW and allocated between standalone storage and hybrid solar-plus-storage configurations. Solar-plus-storage resources are represented as coupled components (NewGridBattery4hr Hybrid and New Solar PPA Hybrid) linked through model constraints to ensure co-development.
- d) Please see the response to ORS Request No. 2-14(c).
- e) Please see the response to ORS Request No. 2-14(c).
- f) The comment in cell F16 is incorrect. The correct constraint is that the model does not allow more than one unit to be built per year beginning January 1, 2040.
- g) In the 2026 IRP, the timing of the 2024_TIA_pt1 cost was updated to reflect dependencies on system developments, including the earliest construction date of the Canadys resource and the retirement of Wateree. Absent these triggering events, the cost is not applicable; therefore, the first modeled availability shifts to January 1, 2033.
- h) Annual build limits did not change.
- i) No unconstrained sensitivity was performed and would not remain true to limitations of the ELCC surface. Capacity expansion models require practical build limits to ensure realistic and meaningful optimization results. Additionally, a fully unconstrained solar-plus-storage scenario was not evaluated because ELCC results demonstrate a decline in marginal firm capacity value for 4-hour storage at higher penetration levels, as described in the response to ORS Request No. 2-14(c). Without build limits, the model cannot accurately define what the ELCC values are for storage resources and creates anomalies results.

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
SECOND AND CONTINUING REQUEST FOR PRODUCTION
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PERSON RESPONSIBLE: Adam Bidwell

Exhibit LM-24:

DESC Response to ORS Data Request No. 3-07

**DOMINION ENERGY SOUTH CAROLINA, INC.
SOUTH CAROLINA OFFICE OF REGULATORY STAFF'S
THIRD AND CONTINUING REQUEST FOR PRODUCTION
OF BOOKS, RECORDS, AND OTHER INFORMATION
DOCKET NO. 2026-9-E**

REQUEST NO. 3-07:

Refer to the Company's Response to ORS Request No. 2-14(h), which sought information regarding annual build limits. Explain why the cumulative build limits for New Solar PPA Hybrid, NewGridBattery4hr, and NewGridBattery4hr Hybrid decreased relative to the 2025 IRP Update. If no formal studies were conducted, explain the specific criteria used to determine that the market's capacity to absorb these resources has declined.

RESPONSE NO. 3-07:

Please see the Company's Response to ORS Request No. 2-14(c). The cumulative build limits are based on the results of the 2025 Reserve Margin and Effective Load Carrying Capability ("ELCC") Study conducted by PowerGEM.

As shown in Table 3 of the 2025 Reserve Margin Study, at 1,200 MW of 4-hour storage the system achieves a firm capacity of 925 MW, and at 1,600 MW the firm capacity is 1,104 MW. The incremental firm capacity contribution of adding 400 MW of 4-hour storage beyond 1,200 MW is approximately 45% $((1,104 - 925) / 400)$. Once the marginal ELCC of 4-hour storage fell below 50%, this indicated that a resource with twice the discharge duration would provide greater reliability value per MW of installed capacity. Accordingly, the Company evaluated 8-hour storage (a resource that the IRP Stakeholder Advisory Group had requested for evaluation) and found it to have an incremental ELCC of approximately 65% for the first 400 MW tranche beyond 1,200 MW of 4-hour storage.

With an ELCC curve developed for 4-hour storage from 0 MW to 1,200 MW and for 8-hour storage from 0 MW to 1,600 MW (beginning after all 1,200 MW of 4-hour storage is included), PLEXOS modeling limitations and ELCC evaluation requirements necessitated setting a cumulative cap of 1,200 MW for all 4-hour storage resources, including both standalone and solar-plus-storage configurations.

PERSON RESPONSIBLE: Adam A. Bidwell

Exhibit LM-25:

DESC Response to Sierra Club Data Request No. 1-16

**DOMINION ENERGY SOUTH CAROLINA, INC.
SIERRA CLUB'S
FIRST SET OF DATA REQUESTS
DOCKET NO. 2026-9-E**

REQUEST NO. 1-16:

Regarding the Company's energy efficiency (EE), demand-side management (DSM) and demand response assumptions:

- a. Explain how each of these resources were modeled in PLEXOS.
- b. Provide all input workbooks used to calculate the quantity of each resource and cost.
- c. Provide the most recent EE and/or DSM potential study and program performance reports for the Company.

RESPONSE NO. 1-16:

- a. EE is modeled as a reduction to the load and is incorporated in the load forecast. DR resources are modeled as generating resources.
- b. Please see the spreadsheet entitled "DESC_IRP Inputs_EE_2025 - with Lighting - v3.0 w High Low - 2026-01-21.xlsx" located in folder "2026 IRP PLEXOS Results and Workbooks\Source Data CONFIDENTIAL\DR and EE" which was provided to intervenors with a Confidentiality Agreement when DESC filed its 2026 IRP.
- c. See ORS Response No. 1-16.