460

FPL's response to Staff's Twenty-First Interrogatories Nos. 223-228.

QUESTION:
Referring to FPL witness Cohen's rebuttal testimony on pages 13-14 regarding the transition rider charge and transition rider credit and also referring to FPL's response to Staff's Ninth Set of Interrogatories No. 161 c., please state the transition rider revenue requirement charged to the customers of Northwest Florida in years 2023, 2024, 2025, and 2026.

RESPONSE:
Please see the table below:

Transition Total	**2023**	**2024**	**2025**	**2026**
Revenue Requirement	$157,878,920	$118,409,190	$78,939,460	$39,469,730

QUESTION:
Referring to FPL witness Cohen's rebuttal testimony on pages 13-14 regarding the transition rider charge and transition rider credit and also referring to FPL's response to Staff's Ninth Set of Interrogatories No. 160, please expand on the response and provide examples of the two Companies' historical investments over the past several decades.

RESPONSE:
As shown in the transition rider workpaper provided in response to OPC First Set of Production of Documents request No. 35, the $197 million transition rider and credit reflects the difference in average cost between FPL and Gulf. The main drivers of the difference are Gulf's ECRC clause which is higher than FPL's by approximately $165 million and Gulf's fuel clause which is higher than FPL by approximately $58 million. These are partially offset by FPL's base rates which are approximately $77 million higher than Gulf. This highlights the different investments made by both Companies over the last several decades. For example, FPL has made significant investments in clean generation which results in higher base rates but has and will continue to reduce costs recovered through clauses resulting in lower bills. The investments FPL has made are designed to maintain the strong value that the Company delivers to customers – high reliability, clean energy, and low bills. Gulf made different investment choices over the last few decades including retrofitting plants Crist and Daniel and signed purchase power agreements which has resulted in lower base costs but higher clause costs.

Source: OPC 1st PODs, No. 35 Supplemental

2021 Revenue ($MM)	MWh	Base	Fuel	CCRC	ECCR	ECRC	SPP	Total
FPL	111,812,880	$6,893.9	$2,711.5	$226.9	$162.9	$176.3	$43.4	$10,215.0
Gulf	10,844,490	$584.6	$326.5	$83.6	$11.2	$197.8	$3.5	$1,207.2
Combined	**122,657,369**	**$7,478.6**	**$3,038.0**	**$310.5**	**$174.1**	**$374.1**	**$47.0**	**$11,422.2**

Average Rates ($/MWh)	MWh	Base	Fuel	CCRC	ECCR	ECRC	SPP	Total
FPL	111,812,880	$61.66	$24.25	$2.03	$1.46	$1.58	$0.39	$91.36
Gulf	10,844,490	$53.91	$30.11	$7.71	$1.03	$18.24	$0.32	$111.32
Combined	**122,657,369**	**$60.97**	**$24.77**	**$2.53**	**$1.42**	**$3.05**	**$0.38**	**$93.12**

Surcharge Requirement	MWh	Base	Fuel	CCRC	ECCR	ECRC	SPP	Total
Differential	111,812,880	($0.68)	$0.52	$0.50	($0.04)	$1.47	($0.01)	$1.76
Revenue Requirement	**111,812,880**	**($76,556,837)**	**$57,921,852**	**$56,162,158**	**($4,238,136)**	**$164,699,395**	**($639,783)**	**$197,348,650**

QUESTION:
Please refer to FPL witness DuBose's rebuttal testimony on page 15, lines 13-14, which states: "As a result, there may be a risk of double counting the allocations to smaller customers with less demand than the average customer." Please clarify and explain if "average customer" refers to an average residential customer only or an average FPL customer (including all customer classes) and how FPL defines an average customer.

RESPONSE:
No, for purposes of the referenced statement, the term "average customer" does not refer to an average residential customer only. The term "average customer" as used in the referenced statement, relates to an average customer for which the minimum system is sufficient to meet their levels of demand. There will be customers whose demands could be served with smaller sized equipment but for which FPL does not install smaller facilities than the minimum system sizes and customers who do require equipment sizes greater than the minimum system sizes and for which FPL does install larger equipment.

QUESTION:
Referring to FPL witness DuBose's rebuttal testimony on page 15, lines 9-17 regarding drawbacks to the MDS methodology, please expand on the response and provide a hypothetical example which demonstrates how smaller customers with less demand than the average customer may be at risk of double counting the allocations of distribution costs. In your response, please provide the percent of customers with less demand than the class average for the RS and GS rate classes (based on consolidated load research data).

RESPONSE:
The minimum size equipment utilized in the MDS is the actual smallest size equipment being installed across the distribution system. As a hypothetical, if 100% of the residential classes load is served by their allocation of customer classified equipment under MDS, then they should receive no allocation of the demand related facilities since this minimum sized equipment actually serves their demand. Any additional allocation of demand related costs would be double allocating costs to this class. If only 80% of residential customers' load is sufficiently served by their customer classified equipment under MDS, then the amount of demand related costs allocated to this class would need to be adjusted to account for this fact; otherwise this class would be overallocated distribution costs since 80% of the customers full demand requirements are served by the minimum system sized equipment.

Please refer to FPL's response to Staff's Twenty-First Set of Interrogatories, No. 225 regarding the use of the term "average customers". The actual percentage of each class for which the minimum sized equipment is sufficient has not been analyzed by FPL.

QUESTION:
Please refer to FPL witness DuBose's rebuttal testimony on page 15-16 regarding how FPL's distribution planning must account for system reliability and storm hardening. If the informational MDS methodology provided in Exhibit TBD-7 was appropriately tailored as described by witness DuBose, please explain the adjustments made to account for the requirements of system reliability and storm hardening in Florida. If not, please discuss the adjustments FPL believes would be necessary to tailor the MDS appropriately as described.

RESPONSE:
The informational MDS methodology provided in Exhibit TBD-7 was not tailored to account for fundamental challenges associated with system reliability and storm hardening. The Company is not proposing to use the MDS method and, as such, has not conducted a review or analyses of the processes required to adjust the MDS methodology to account for system reliability and storm hardening.

QUESTION:
Please refer to FPL's witness Valle's rebuttal testimony, page 5, line 20, through page 6, line 14 for the following questions.

a. Please define what FPL means by "at scale," and how FPL defines the scale of hydrogen storage projects.

b. Please explain why FPL considers the scale of the project to be appropriate. As part of your response, please explain how FPL determined the scale of the project.

c. Identify all hydrogen projects similar in scale of which FPL is aware. As part of your response, provide each project's rated relevant metrics used to determine scale (hydrogen production/storage) and explain the key differences between the project and FPL's Green Hydrogen Pilot.

RESPONSE:
a. In the context of FPL's Green Hydrogen Pilot, "at scale" means a hydrogen production and storage project large enough to provide a meaningful blend of hydrogen (in this case, up to a 5% hydrogen blend) to the existing combustion turbine units to assess impacts to combustion turbine performance.

b. FPL selected a 25 MW electrolyzer to demonstrate that the system could be operated continuously at a fuel blend of up to 5% hydrogen and 95% of natural gas for the combustion turbines or could be used to produce and store green hydrogen as needed. The combustion turbines at Okeechobee Clean Energy Center (OCEC) are large contributors to FPL's power generation in the region. The electrolyzer is sized large enough to allow for evaluation of operation of both the turbines and the electrolyzer on the grid and provide lessons for grid-scale utility integration. The scale of the project is also appropriate because it produces hydrogen at a rate that is meaningful for learning about design, procurement, construction, commissioning, operations, and maintenance during a variety of operational scenarios, but minimizes modifications required to the existing combustion turbine units.

c. There have been a number of announcements regarding hydrogen over the last several months, and while those projects are at a comparable scale to what FPL is proposing, none of those projects appear to be similar to the pilot that FPL is proposing. Two examples of those projects are below:

Air Liquide Hydrogen Production Facility (Becancour, Canada) – Air Liquide's recently completed a 20-megawatt electrolyzer, which will provide green hydrogen for industrial use and mobility applications. While one of the larger electrolyzers in operation in the world, this unit is still smaller than FPL's proposed electrolyzer and is only intended to produce hydrogen for non-utility applications. More details can be found at: https://www.airliquide.com/magazine/energy-transition/inauguration-worlds-largest-pem-electrolyzer.

LADWP Inter Mountain Power Project (Utah) - The Inter Mountain Power Project is a long-term project to retire an existing coal plant and replace it with new natural gas-fuel generating units which would be capable of utilizing hydrogen. An electrolyzer would be constructed and geologic salt domes would be used for hydrogen storage. This project differs from FPL's hydrogen project in a few ways. First, the project proposes new gas units instead of retrofitting an existing gas plant like FPL. Second, Inter Mountain proposes to create green hydrogen but not directly from onsite renewables like the FPL pilot. Third, the FPL project is scheduled to come online 2 years in advance of the Inter Mountain project. More details can be found at: https://www.ipautah.com/ipp-renewed/.