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DEF's response to Staff's Second Set of Interrogatories No. 2

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Environmental Cost Recovery Clause

Docket No. 20210007-EI

Dated: June 1, 2021

DUKE ENERGY FLORIDA, LLC'S RESPONSE TO STAFF'S SECOND SET OF INTERROGATORIES (NOS. 2-3)

Duke Energy Florida, LLC ("DEF"), responds to Staff's Second Set of Interrogatories to DEF (Nos. 2-3), as follows:

INTERROGATORIES

2. For the following questions, please refer to DEF witness McDaniel's direct testimony filed April 1, 2021.

   a. Please refer to page 3, lines 10-19. Project 1 - Transmission Substation Environmental Investigation, Remediation, and Pollution Prevention. Please describe the "unexpected expenses" that were incurred as a result of the Florida Department of Environmental Projection's (FDEP) requests.

Response:

a. Unexpected expenses were incurred as a result of FDEP requests for closures of groundwater wells. These included the services provided by the environmental consulting company which conducted the assessment and investigation of those wells and contractor oversight of supplementary vendors required for the well closures. Additional vendor expenses included certified well drillers, vegetation removal contractors, equipment rental and a survey company. Environmental consultant expenses included groundwater well closure report preparation and

submittals, subsequent amendment of the Declaration of Restrictive Covenants (DRC) for recordings with County Clerks of Courts and submittal to FDEP.

b. Please refer to page 4, line 13 through page 5, line 3. Project 6 - Cooling Water 23 Intake - 316(b). Please identify when DEF anticipates the FDEP will complete its review of the permit renewal application and when the additional costs will be incurred.

Response:

b. While it is difficult to predict FDEP's timeline for review, DEF anticipates FDEP could potentially issue the final NPDES permits, at the earliest, during the fourth quarter of 2021; however, it is more likely permit issuance would occur during early 2022. Additional costs will begin to be incurred shortly after the permit is granted.

c. Please refer to page 6, lines 11-16. Project 17 - Mercury & Air Toxic Standards (MATS) – CR 4&5. Please explain whether the tests and inspections are no longer required or if they are rescheduled to a futured date.

Response:

c. The MATS inspections were required and completed in 2020. During the CR4 2020 outage, the scope of work typically performed as part of the inspections was not needed due to equipment that had already been mobilized as part of other work occurring concurrently.

After further review, the cited Q/A was missing the words, "work and costs associated with the" tests and inspections. Therefore, the testimony should have read, "The MATS – CR 4&5 O&M variance is $90k, or 74% lower than forecasted, primarily due to work and costs associated with the inspections that did not need to be completed in Fall 2020."

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3. Please refer to the March 2021 Solar Report filed on April 30, 2021, Document No. 03764-2021 for the following question. For the Santa Fe and Twin Rivers solar projects, please complete the following tables.

Solar Project Name	
	Projected Net Generation (MWh)
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

Solar Project Name			
	NG Displaced (MCF)	Oil Displaced (Bbl)	Coal Displaced (Ton)
Projected for a year			

Solar Project Name				
	CO_2 Reductions (Tons)	NO_x Reductions (Tons)	SO_2 Reductions (Tons)	Hg Reductions (lbs)
Projected for a year				

Solar Project Name		
	Projected Peak Day Performance	
Time of Day	Winter Peak Day (kW) (January)	Summer Peak Day (kW) (August)

1:00 AM		
2:00 AM		
3:00 AM		
4:00 AM		
5:00 AM		
6:00 AM		
7:00 AM		
8:00 AM		
9:00 AM		
10:00 AM		
11:00 AM		
12:00 PM		
1:00 PM		
2:00 PM		
3:00 PM		
4:00 PM		
5:00 PM		
6:00 PM		
7:00 PM		
8:00 PM		
9:00 PM		
10:00 PM		
11:00 PM		
12:00 AM		

Response:
Please see DEF's response on the following three pages.

	Santa Fe	Twin Rivers
	Projected Net Generation (MWh)	
January	11,670	10,410
February	12,270	11,310
March	17,080	16,030
April	18,600	17,610
May	20,600	19,690
June	18,750	17,640
July	18,090	18,230
August	16,940	16,750
September	15,180	15,370
October	15,370	15,010
November	12,430	11,340
December	10,400	8,870

	Santa Fe			Twin Rivers		
	NG Displaced (MCF)	Oil Displaced (Bbl)	Coal Displaced (Ton)	NG Displaced (MCF)	Oil Displaced (Bbl)	Coal Displaced (Ton)
Projected for a year	1,238,040	5,035	20,674	1,177,849	4,790	19,669

	Santa Fe				Twin Rivers			
	CO2 Reductions (Tons)	NOx Reductions (Tons)	SO2 Reductions (Tons)	Hg Reductions (lbs)	CO2 Reductions (Tons)	NOx Reductions (Tons)	SO2 Reductions (Tons)	Hg Reductions (lbs)
Projected for a year	128,423	97	48	0.9	122,180	92	46	0.8

	Santa Fe				Twin Rivers			
	Projected Day Performance				Projected Day Performance			
Time of Day	Winter Peak Day (MW) (January)	Winter Average Day (MW) (January)	Summer Peak Day (MW) (August)	Summer Average Day (MW) (August)	Winter Peak Day (MW) (January)	Winter Average Day (MW) (January)	Summer Peak Day (MW) (August)	Summer Average Day (MW) (August)
1:00 AM	-	-	-	-	-	-	-	-
2:00 AM	-	-	-	-	-	-	-	-
3:00 AM	-	-	-	-	-	-	-	-
4:00 AM	-	-	-	-	-	-	-	-
5:00 AM	-	-	-	-	-	-	-	-
6:00 AM	-	-	-	-	-	-	-	-
7:00 AM	-	-	-	-	-	-	-	-
8:00 AM	-	0.1	3.4	3.0	0.4	0.1	4.9	4.6
9:00 AM	33.4	20.7	37.0	28.0	35.4	18.7	42.5	36.3
10:00 AM	64.3	38.5	63.7	48.7	61.4	35.8	61.8	48.7
11:00 AM	64.8	45.1	72.9	54.7	62.5	43.0	68.1	52.2
12:00 PM	62.6	45.2	73.4	59.9	59.7	43.4	56.9	53.4
1:00 PM	60.4	44.9	63.5	60.2	57.9	40.4	69.0	56.4
2:00 PM	60.3	48.1	67.6	56.8	58.4	39.5	61.6	55.9
3:00 PM	63.3	45.7	64.9	53.7	60.4	39.0	32.6	52.5
4:00 PM	64.6	47.3	9.5	50.6	61.7	39.6	11.0	52.2
5:00 PM	45.8	35.8	12.0	51.4	53.4	31.0	6.3	50.0
6:00 PM	2.5	5.1	14.1	44.2	9.6	5.3	3.8	41.5
7:00 PM	-	-	4.1	30.5	-	-	1.5	28.8
8:00 PM	-	-	0.7	4.7	-	-	0.3	7.5
9:00 PM	-	-	-	-	-	-	-	-
10:00 PM	-	-	-	-	-	-	-	-
11:00 PM	-	-	-	-	-	-	-	-
12:00 AM	-	-	-	-	-	-	-	-

All projected values were developed for use in Docket No. 20200245-EI (Santa Fe, Twin Rivers, Charlie Creek, Duette and Sandy Creek) to project the performance of the solar plant over a 30-year period. These values use historic years of location-specific, solar irradiance data to create a projected irradiance year, similar to the development of a "weather normal" year for load forecasting. These projected values are the best available data for the projection of long-term unit performance through the life cycle of the solar power plant but may or may not be realized in any specific calendar year or month.

Data is provided for the projected year 2021. Forecasted data for any specific future month or year will vary due to changes in anticipated solar plant performance including any plant in-service shakedown once placed in-service and changes in the total DEF system make up and performance.

In response to the table requesting Peak Day Performance, DEF has (1) adjusted the summer peak-day month to August consistent with DEF's projected summer peak; and (2) provided data for the specific day which aligns with the projected peak for each month as well as the more representative value of the average for the peak month.