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Sent: Monday, August 22, 2011 4:22 PM
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Subject: Additional Analysis regarding FSRU's
Attachments: SCENARIO 1.docx; SCENARIO 2.docx; SCENARIO 3.docx

Greetings: Attached please find the additional analysis regarding FSRU's. Thanks,

Verified by Puerto Rico Electric Power Authority McAfee Email and Web Security System (SCM1).

SCENARIO 2

TWO FSRU's: ONE DELIVERING NATURAL GAS TO PALO SECO AND SAN JUAN AND A SECOND ONE TO CAMBALACHE (THROUGH A LOCAL 20 INCH PIPELINE UNIT PALO SECO AND SAN JUAN)

Generating Unit	Length of Pipeline Required (miles)	Natural Gas Consumption Rate (MMscf/day) Operating with 100% Natural Gas	Natural Gas Consumption Rate (MMscf/day) Operating with 80% Natural Gas	Natural Gas Consumption Rate (MMscf/day) Operating with 50% Natural Gas	Total Projected Consumption (MMscf/day)	Lease and Operational Costs for FSRU annually for a 20 yrs. contract (MM dollars)	Additional Pipeline Costs (MM dollars)	Total Consolidated Cost for 20 yrs. (MM dollars)	Via Verde Total Consolidated Cost for 20 yrs. (MM dollars)
San Juan 5 & 6 (combined cycle)		78	56	---	78 ¹				
San Juan 7 – 10 (Steam Units)	6.6	95	76	47.5	47.5	80	27	3,227	980
Palo Seco 3 & 4 (Steam Units)		93	74	46.5	46.5				
Cambalache Combined Cycle	-----	60	48	30	60 ²	80	-----		
	6.6				Total: 232	Total: 160	Total: 247.6		

¹ San Juan Combined Cycle Units 5/6 will operate at 100% Natural Gas, since it is the most efficiently heat rated unit

² Will also run at 100%, since it is our second most efficiently heat rated unit

SCENARIO 1¹

ONE FSRU DELIVERING NATURAL GAS TO PALO SECO, SAN JUAN AND CAMBALACHE PLANTS (THROUGH A LOCAL 24 INCH PIPELINE UNIT)

Generating Unit	Length of Pipeline Required (miles)	Natural Gas Consumption Rate (MMscf/day) Operating with 100% Natural Gas	Natural Gas Consumption Rate (MMscf/day) Operating with 80% Natural Gas	Natural Gas Consumption Rate (MMscf/day) Operating with 50% Natural Gas	Total Projected Consumption (MMscf/day)	Lease and Operational Costs for FSRU annually for a 20 yrs. contract (MM dollars)	Additional Pipeline Costs (MM dollars)	Total Consolidated Cost for 20 yrs. (MM dollars)	Via Verde Total Consolidated Cost for 20 yrs. (MM dollars)
San Juan 5 & 6 (combined cycle)		78	56	---	78 ²				
San Juan 7 – 10 (Steam Units)	6.6	95	76	47.5	47.5	80 ³	32.4	1,847.6	980
Palo Seco 3 & 4 (Steam Units)		93	74	46.5	46.5				
Cambalache Combined Cycle	44	60	48	30	60 ⁴		215.2		
	Total: 50.6				Total: 232	Total: 80	Total: 247.6		

¹ This Scenario generates the same temporary and permanent impact to wetlands as the one generated by Via Verde Project

² San Juan Combined Cycle Units 5/6 will operate at 100% Natural Gas, since it is the most efficiently heat rated unit

³ Based on available lease costs information

⁴ Will also run at 100%, since it is PREPA'S second most efficiently heat rated unit

SCENARIO 3

THREE FSRU's: DELIVERING NATURAL GAS TO PALO SECO, SAN JUAN AND CAMBALACHE (ONE FSRU FOR EACH PLANT)

Generating Unit	Length of Pipeline Required (miles)	Natural Gas Consumption Rate (MMscf/day) Operating with 100% Natural Gas	Natural Gas Consumption Rate (MMscf/day) Operating with 80% Natural Gas	Natural Gas Consumption Rate (MMscf/day) Operating with 50% Natural Gas	Total Projected Consumption (MMscf/day)	Lease and Operational Costs for FSRU annually for a 20 yrs. contract (MM dollars)	Additional Pipeline Costs (MM dollars)	Total Consolidated Cost for 20 yrs. (MM dollars)	Via Verde Total Consolidated Cost for 20 yrs. (MM dollars)
San Juan 5 & 6 (combined cycle)		78	56	---	78 ¹				
San Juan 7 – 10 (Steam Units)	N/A	95	76	47.5	47.5	80			
Palo Seco 3 & 4 (Steam Units)		93	74	46.5	46.5	80			
Cambalache Combined Cycle		60	48	30	60 ²	80			
	-----				Total: 232	Total: 240	Total: 247.6		
								4,800	980

¹ San Juan Combined Cycle Units 5/6 will operate at 100% Natural Gas, since it is the most efficiently heat rated unit

² Will also run at 100%, since it is our second most efficiently heat rated unit