

9/10/12

Comm Chase
120335

Biomass Plant Risk Assessment

Measured as Equivalent Effect on
1000 KWH Residential Bill
\$/Month

Scenario: Base Load and Energy Price Forecast

Parameter	2014		2019	
	Item	Cumulative Effect on Bill	Item	Cumulative Effect on Bill
Direct Utility Bill Cash Flows				
Net Effect After Fuel Savings	\$10.56	\$10.56	\$5.12	\$5.12
Effect of Prepayment Restructure	-\$2.25	\$8.31	-\$2.27	\$2.85
CO ₂ Regulation savings @ \$12/MWH	-\$2.22	\$6.10	-\$2.10	\$0.75
Indirect Utility Bill Benefits				
Avoided capacity in 2023	-\$4.73	\$1.37	-\$4.49	-\$3.75
Other Community Benefits From Off-System Sales				
Prop Tax Revenue for County, Schools, Library	-\$1.35	\$0.02	-\$1.28	-\$5.03
Other Regulatory Risk From Delay				
Missing ITC Grant Deadline 1/1/2014	\$1.48	\$1.50	\$1.40	-\$3.62
PTC Not Extended	\$3.14	\$4.63	\$3.29	-\$0.34

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\$/Month

Scenario: 20% Lower Energy Price Forecast

Parameter	2014		2019	
	Item	Cumulative Effect on Bill	Item	Cumulative Effect on Bill
Direct Utility Bill Cash Flows				
Net Effect After Fuel Savings	\$12.78	\$12.78	\$8.50	\$8.50
Effect of Prepayment Restructure	-\$2.25	\$10.53	-\$2.27	\$6.22
CO ₂ Regulation savings @ \$12/MWH	-\$2.22	\$8.32	-\$2.10	\$4.12
Indirect Utility Bill Benefits				
Avoided capacity in 2023	-\$4.73	\$3.59	-\$4.49	-\$0.37
Other Community Benefits From Off-System Sales				
Prop Tax Revenue for County, Schools, Library	-\$1.35	\$2.24	-\$1.28	-\$1.65
Other Regulatory Risk From Delay				
Missing ITC Grant Deadline 1/1/2014	\$1.48	\$3.72	\$1.40	-\$0.25
PTC Not Extended	\$3.14	\$6.85	\$3.29	\$3.04

GREC Contract Structure

	\$/MWh
Fixed Costs	
Non Fuel Energy Charge	\$56.15
Fixed O&M	\$23.74
Property Taxes	\$8.88
Subtotal	<u>\$88.76</u>
Discretionary Dispatch Costs*	
Variable O&M	\$3.56
Fuel Charge	\$37.80
Subtotal	<u>\$41.36</u>
Total	<u>\$130.13 /MWh</u>

*Only incurred if better alternatives are not available

Let's Translate \$/MWh to Annual Costs

Total Annual Cost

\$103 M/Year



Discretionary
Dispatch Cost

\$33 M/Year

Fixed
Cost*

\$70 M/Year

Discretionary Dispatch Cost* = $\$41.36/\text{MWh} \times 90 \text{ CF} \times 100\text{MW} \times 8760 \text{ hours/Year} = \$32,608,224 \text{ /Year}$
Fixed Cost = $\$88.76/\text{MWh} \times 90 \text{ CF} \times 100\text{MW} \times 8760 \text{ hours/Year} = \$69,978,384 \text{ /Year}$
Total Extended Cost = $\$130.13/\text{MWh} \times 90 \text{ CF} \times 100\text{MW} \times 8760 \text{ hours/Year} = \$102,594,492 \text{ /Year}$

*If GREC is available and capable of 100 MW 90% of the time (.90 CF)

Power Marketing And Pre-pay Strategy Benefits

X \$1,000,000 Per Year

	Potential Benefit
Long Term 25 MW PPA Assignment	\$16
Non- Recourse Pre-Pay*	\$15
System Wholesale Power Sale*	\$7
Federal Agency Contract	<u>\$2</u>
Total Marketing & Prepay Strategies	\$40 M/Year

*Reflects the effect of having only 75 MW of GREC available for retail power supply



Lets Translate Millions of Dollars Per Year Into Customer Prices

- \$8 million per year of cost is equivalent to \$4.00/1000 kWh
- Given that savings may vary from estimates, a target of a \$10.00/1000 kWh is realistic which corresponds to recovering \$20 million per year

Note: As a purchased power cost recovered through fuel adjustment, GREC's costs are not subject to utility taxes or surcharges.