



Deerhaven Renewable Quarterly Comparison

Item #170933

Utility Advisory Board

March 27, 2018

Advantages Gained

- Increased Flexibility
 - Low Load Operation
 - 35 MWn vs. 70 MWn
 - Fuel Sourcing and Inventory
 - Storm Debris
 - Ability to Dispatch
- Lower Costs

DEERHAVEN RENEWABLE

11/7/17 to 02/07/18

Cost of Operations

Labor	\$644,753
Fringe	\$220,744
Markup	\$ 60,585
Management Fee	\$ 97,286
Operations	<u>\$322,631</u>
Total	\$1,345,999

DEERHAVEN RENEWABLE

11/7/17 to 02/7/18

Cost of Fuel

Biomass – Fuel	\$4,957,501.74
Biomass - Svc Fee	\$160,399.97
Sodium BiCarb	\$49,751.00
Ammonia	\$29,182.01
Combustion By-Products	\$375,069.50
Misc	\$2,135.00
Diesel	\$19,515.35
Total	\$5,593,554.57

DEERHAVEN RENEWABLE

Under previous PPA

11/7/17 – 2/7/18

Cost

Capacity Payments	\$17,288,536
Energy Payments	<u>\$6,961,055</u>
Total	\$24,249,591

Sources: 2131 available hours @ \$79.15/MWh (NFEC & FOM)

163,674 Delivered MWhs @ \$42.53/MWh (October 2017 invoice – Fuel and VOM charge)

DEERHAVEN RENEWABLE COMPARISON

11/7/17 to 02/07/18

COSTS	PPA	GRU
Operations	N/A	\$1,345,999
Fuel/Energy	\$6,961,055	\$5,593,555
Capacity	\$17,288,536	N/A
Debt Service	N/A	\$6,145,352
Ad Valorem Tax Accrual*	\$1,694,926	N/A
TOTAL	\$25,944,517	\$13,084,906

*Based on 3/12 of Nov-17 Tax bill - \$6,779,704

Unit Comparison*

	Deerhaven Renewable	Deerhaven Unit 2
Avg. Heat Rate (MMBtu/MWh)	11.31	12.2
Fuel (\$/MMBtu)	2.67	3.08
Reagent (\$/MMBtu)	.35	.10
Total Fuel Cost (\$/MMBtu)	3.02	3.18
Avg. Power Cost (\$/MWh)	34.17 [^]	38.80
Total Cost (\$)	5,593,555	6,350,551

Note: DHR served 163,674 MWh over time period (11/7/17-2/7/18)

*If DH2 had served the equivalent MWh

[^]Avg. cost over time period (11/7/17-2/7/18)

DEERHAVEN RENEWABLE Contract with NAES

Assuming a full year

Cost of Labor	\$ 2,689,299
Management Fee	\$ 420,000
Fringes	\$ 1,179,171
Insurance	\$ 28,064
Markup	\$ 262,944
TOTAL	<u>\$ 4,579,478</u>

Questions