

**Table 1. 2018 and 2019 Capacity Factors of DEC Coal Plants<sup>1</sup>**

Unit	Rated capacity <sup>2</sup> (MW, winter)	DEC <sup>2</sup> classification	2018 capacity factor <sup>3</sup> (%)	2019 capacity factor <sup>3</sup> (%)	2019 cost-of- production <sup>4</sup> (\$/kW-hr)
Belews Creek 1	1,110	baseload	49	31	0.0406
Belews Creek 2	1,110	baseload	33	42	
Cliffside 5	546	peaking	26	37	0.0398
Cliffside 6	849	intermediate	58	62	
Marshall 1	380	intermediate	29	27	0.0423
Marshall 2	380	intermediate	20	34	
Marshall 3	658	baseload	55	42	
Marshall 4	660	baseload	64	58	

- 1) DEC also operates the five-unit Allen coal plant. Allen Units 1-3 (604 MW) are currently scheduled for retirement in 2024. Allen Units 4-5 (526 MW) are scheduled for retirement in 2028 (DEC 2019 IRP, p. 89).
- 2) 2019 DEC Integrated Resource Plan, September 3, 2019, p. 79.
- 3) EIA Form 923, Page 4 Generator Data, 2018 and 2019.
- 4) 2019, DEC FERC Form 1, pp. 402-403.3. The cost-of-production is reported as an average for all units at each plant. The smaller units at Cliffside (Unit 5) and Marshall (Units 1 and 2) would be expected to have higher cost-of-production than the larger unit(s).

**Table 2. 2018 and 2019 Capacity Factors of DEC Natural Gas Combustion Turbine (CT) Power Plants<sup>1</sup>**

Plant	Number of CTs	Rated capacity <sup>2</sup> (MW, winter)	DEC <sup>2</sup> classification	2018 capacity factor <sup>3</sup> (%)	2019 capacity factor <sup>3</sup> (%)	2019 cost-of- production <sup>4</sup> (\$/kW-hr)
Rockingham	5	895	peaking	30	12	0.0420
Lincoln	16	1,595	peaking	0.6	0.2	NA
Mill Creek	8	757	peaking	2.5	1.1	NA

- 1) Does not include 96 MW Lee CTs.
- 2) 2019 DEC Integrated Resource Plan, September 3, 2019, p. 80.
- 3) 2019, DEC FERC Form 1, pp. 403.2-403.3.
- 4) 2019, DEC FERC Form 1, pp. 403.3. Cost-of-production for Lincoln and Mill Creek are not reported here because fixed costs are concentrated on few hours of operation, resulting in reported cost-of-production substantially higher than if the CTs were operated a high number of operating hours in the year.

### Availability of Low Cost Gas-Fired Capacity in PJM Territory (Virginia and Mid-Atlantic)

In addition to DEC's own CTs, there is currently nearly 50,000 MW of low-cost merchant combined cycle (CC) capacity in the PJM regional market,<sup>1</sup> adjacent to Duke Energy North Carolina territory. The typical cost-of-production of a CC unit is less than \$0.030/kW-hr.<sup>2</sup> This capacity is potentially available for contracting by Duke Energy to substitute for higher cost production from Belews Creek, Cliffside, and Marshall.<sup>3</sup>

<sup>1</sup> Monitoring Analytics, LLC, *2019 Quarterly State of the Market Report for PJM: January through March*, May 9, 2019, p. 65. See: [https://www.monitoringanalytics.com/reports/PJM\\_State\\_of\\_the\\_Market/2019/2019q1-som-pjm.pdf](https://www.monitoringanalytics.com/reports/PJM_State_of_the_Market/2019/2019q1-som-pjm.pdf). As of March 31, 2019, there was 47,591.6 MW of operational combined cycle capacity in PJM.

<sup>2</sup> 2019, DEC FERC Form 1, pp. 402.4, 718 MW Dan River CC, cost-of-production = \$0.027/kW-hr.

<sup>3</sup> U.S. Energy Information Administration, *Natural gas-fired power plants are being added and used more in PJM Interconnection*, October 17, 2018. See: <https://www.eia.gov/todayinenergy/detail.php?id=37293>. CC units in PJM generated about 200 million MWh in 2017, at an average capacity factor (CF) of about 60%. DEC ran its two CCs (Dan River & Buck) at an average CF of about 85% in 2018. A third DEC CC, 792 MW WS Lee, came online in mid-2018. The CF of the DEC's three operational CC plants operational throughout 2019 declined to about 75%.