

**Exhibit 18**

**No. 7**

2-24) Please provide all inputs and assumptions used for new plant additions in Juhl's PROMOD model in an excel spreadsheet. Include sources for the inputs and assumptions.

Please *see* Resource Additions and Generic Additions worksheets in "PMRG Response to PSC Data Request 2.xlsx" spreadsheet. The source for these data are the 2015 Ventyx Reference Case forecast.

Midwest Fall 2015 Reference Case

Monthly Natural Gas Price Forecast- Henry Hub, LMCs and Midwest Burner Tips  
2015 \$/MMBtu

Year	Month	Market Hubs	
		Henry Hub	AECO
2016	1	2.94	2.27
2016	2	2.94	2.28
2016	3	2.90	2.26
2016	4	2.76	2.13
2016	5	2.76	2.10
2016	6	2.78	2.11
2016	7	2.81	2.11
2016	8	2.82	2.13
2016	9	2.81	2.13
2016	10	2.83	2.18
2016	11	2.90	2.27
2016	12	3.05	2.39
2017	1	3.15	2.47
2017	2	3.13	2.46
2017	3	3.07	2.39
2017	4	2.83	2.17
2017	5	2.82	2.13
2017	6	2.84	2.15
2017	7	2.87	2.15
2017	8	2.88	2.16
2017	9	2.87	2.17
2017	10	2.93	2.20
2017	11	3.04	2.47
2017	12	3.23	2.68
2018	1	3.31	2.75
2018	2	3.32	2.72
2018	3	3.30	2.66
2018	4	3.09	2.41
2018	5	3.13	2.40
2018	6	3.20	2.50
2018	7	3.27	2.58
2018	8	3.33	2.66
2018	9	3.35	2.64
2018	10	3.42	2.79

2018	11	3.53	3.09
2018	12	3.67	3.26
2019	1	3.75	3.27
2019	2	3.78	3.28
2019	3	3.74	3.22
2019	4	3.65	3.07
2019	5	3.68	2.99
2019	6	3.74	2.99
2019	7	3.82	3.09
2019	8	3.88	3.18
2019	9	3.80	3.00
2019	10	3.85	3.18
2019	11	3.96	3.45
2019	12	4.06	3.60
2020	1	4.38	4.06
2020	2	4.31	3.99
2020	3	4.13	3.80
2020	4	3.99	3.63
2020	5	3.97	3.53
2020	6	3.99	3.51
2020	7	4.05	3.58
2020	8	4.07	3.62
2020	9	3.88	3.38
2020	10	3.95	3.52
2020	11	4.11	3.77
2020	12	4.28	3.96
2021	1	4.71	4.36
2021	2	4.62	4.27
2021	3	4.43	4.06
2021	4	4.27	3.86
2021	5	4.23	3.75
2021	6	4.26	3.73
2021	7	4.33	3.82
2021	8	4.36	3.87
2021	9	4.14	3.59
2021	10	4.23	3.75
2021	11	4.40	4.02
2021	12	4.59	4.23
2022	1	4.95	4.56
2022	2	4.87	4.47
2022	3	4.64	4.24
2022	4	4.47	4.03
2022	5	4.43	3.92

2022	6	4.45	3.90
2022	7	4.53	3.98
2022	8	4.56	4.04
2022	9	4.32	3.74
2022	10	4.42	3.91
2022	11	4.61	4.19
2022	12	4.82	4.42
2023	1	5.13	4.71
2023	2	5.03	4.62
2023	3	4.79	4.36
2023	4	4.59	4.12
2023	5	4.55	4.00
2023	6	4.58	3.98
2023	7	4.67	4.08
2023	8	4.70	4.13
2023	9	4.44	3.81
2023	10	4.54	4.00
2023	11	4.76	4.31
2023	12	4.98	4.56
2024	1	5.12	4.69
2024	2	5.03	4.60
2024	3	4.83	4.38
2024	4	4.65	4.16
2024	5	4.62	4.04
2024	6	4.64	4.02
2024	7	4.72	4.10
2024	8	4.75	4.16
2024	9	4.52	3.87
2024	10	4.61	4.04
2024	11	4.80	4.34
2024	12	4.99	4.56
2025	1	5.21	4.77
2025	2	5.13	4.69
2025	3	4.92	4.46
2025	4	4.75	4.25
2025	5	4.71	4.13
2025	6	4.74	4.10
2025	7	4.81	4.18
2025	8	4.84	4.24
2025	9	4.61	3.94
2025	10	4.70	4.12
2025	11	4.89	4.42
2025	12	5.09	4.64

2026	1	5.44	4.99
2026	2	5.34	4.88
2026	3	5.09	4.62
2026	4	4.88	4.36
2026	5	4.84	4.23
2026	6	4.87	4.20
2026	7	4.96	4.30
2026	8	4.99	4.36
2026	9	4.72	4.03
2026	10	4.83	4.23
2026	11	5.05	4.56
2026	12	5.29	4.83
2027	1	5.47	5.00
2027	2	5.37	4.91
2027	3	5.16	4.68
2027	4	4.98	4.45
2027	5	4.94	4.30
2027	6	4.96	4.27
2027	7	5.04	4.36
2027	8	5.07	4.42
2027	9	4.84	4.11
2027	10	4.93	4.31
2027	11	5.12	4.62
2027	12	5.33	4.86
2028	1	5.60	5.12
2028	2	5.49	5.01
2028	3	5.24	4.75
2028	4	5.03	4.49
2028	5	4.99	4.34
2028	6	5.02	4.31
2028	7	5.11	4.41
2028	8	5.14	4.48
2028	9	4.87	4.12
2028	10	4.98	4.34
2028	11	5.21	4.70
2028	12	5.44	4.96
2029	1	5.70	5.20
2029	2	5.60	5.10
2029	3	5.36	4.85
2029	4	5.16	4.59
2029	5	5.12	4.44
2029	6	5.15	4.41
2029	7	5.24	4.51

2029	8	5.27	4.57
2029	9	5.01	4.23
2029	10	5.11	4.44
2029	11	5.33	4.79
2029	12	5.56	5.05
2030	1	5.85	5.35
2030	2	5.74	5.24
2030	3	5.46	4.95
2030	4	5.23	4.66
2030	5	5.18	4.50
2030	6	5.22	4.47
2030	7	5.32	4.58
2030	8	5.35	4.65
2030	9	5.06	4.28
2030	10	5.17	4.50
2030	11	5.42	4.89
2030	12	5.68	5.17
2031	1	5.98	5.47
2031	2	5.88	5.36
2031	3	5.61	5.09
2031	4	5.40	4.82
2031	5	5.36	4.65
2031	6	5.38	4.61
2031	7	5.48	4.72
2031	8	5.52	4.79
2031	9	5.24	4.42
2031	10	5.35	4.65
2031	11	5.58	5.03
2031	12	5.83	5.31
2032	1	6.15	5.63
2032	2	6.03	5.51
2032	3	5.74	5.20
2032	4	5.50	4.91
2032	5	5.45	4.73
2032	6	5.49	4.70
2032	7	5.59	4.82
2032	8	5.63	4.89
2032	9	5.32	4.50
2032	10	5.44	4.74
2032	11	5.70	5.14
2032	12	5.98	5.45
2033	1	6.26	5.73
2033	2	6.15	5.61

2033	3	5.87	5.32
2033	4	5.63	5.02
2033	5	5.58	4.86
2033	6	5.61	4.82
2033	7	5.71	4.94
2033	8	5.75	5.01
2033	9	5.44	4.62
2033	10	5.56	4.86
2033	11	5.82	5.25
2033	12	6.09	5.56
2034	1	6.45	5.91
2034	2	6.34	5.79
2034	3	6.04	5.48
2034	4	5.80	5.18
2034	5	5.76	5.02
2034	6	5.78	4.97
2034	7	5.89	5.10
2034	8	5.93	5.18
2034	9	5.62	4.77
2034	10	5.74	5.01
2034	11	6.00	5.42
2034	12	6.28	5.72
2035	1	6.71	6.15
2035	2	6.59	6.03
2035	3	6.31	5.73
2035	4	6.06	5.43
2035	5	6.02	5.27
2035	6	6.06	5.23
2035	7	6.16	5.35
2035	8	6.19	5.42
2035	9	5.88	5.02
2035	10	6.01	5.26
2035	11	6.27	5.66
2035	12	6.54	5.97
2036	1	6.87	6.30
2036	2	6.74	6.18
2036	3	6.44	5.86
2036	4	6.19	5.55
2036	5	6.15	5.40
2036	6	6.18	5.36
2036	7	6.29	5.49
2036	8	6.32	5.55
2036	9	6.01	5.16



2036	10	6.13	5.39
2036	11	6.40	5.80
2036	12	6.69	6.12
2037	1	7.04	6.47
2037	2	6.91	6.34
2037	3	6.59	6.00
2037	4	6.33	5.69
2037	5	6.28	5.53
2037	6	6.31	5.49
2037	7	6.42	5.62
2037	8	6.47	5.70
2037	9	6.13	5.28
2037	10	6.26	5.52
2037	11	6.54	5.93
2037	12	6.85	6.26
2038	1	7.19	6.59
2038	2	7.06	6.46
2038	3	6.73	6.12
2038	4	6.48	5.81
2038	5	6.42	5.65
2038	6	6.46	5.62
2038	7	6.58	5.75
2038	8	6.61	5.82
2038	9	6.27	5.40
2038	10	6.41	5.65
2038	11	6.70	6.07
2038	12	7.00	6.40
2039	1	7.31	6.73
2039	2	7.18	6.59
2039	3	6.84	6.24
2039	4	6.55	5.90
2039	5	6.49	5.74
2039	6	6.53	5.72
2039	7	6.66	5.86
2039	8	6.70	5.93
2039	9	6.34	5.50
2039	10	6.48	5.74
2039	11	6.79	6.17
2039	12	7.11	6.52
2040	1	7.38	6.78
2040	2	7.24	6.64
2040	3	6.91	6.29
2040	4	6.62	5.96

2040	5	6.57	5.79
2040	6	6.61	5.78
2040	7	6.73	5.91
2040	8	6.78	5.99
2040	9	6.41	5.54
2040	10	6.56	5.79
2040	11	6.86	6.22
2040	12	7.18	6.57

### Juhl Energy - Ventyx Reference Case LMP Forecast

Month	South Dakota Energy Price (\$/MW h)
01/01/2018	\$29.38
02/01/2018	\$29.34
03/01/2018	\$26.98
04/01/2018	\$25.25
05/01/2018	\$26.32
06/01/2018	\$28.19
07/01/2018	\$33.11
08/01/2018	\$31.58
09/01/2018	\$27.04
10/01/2018	\$28.84
11/01/2018	\$30.08
12/01/2018	\$32.12
01/01/2019	\$33.45
02/01/2019	\$32.61
03/01/2019	\$31.14
04/01/2019	\$29.42
05/01/2019	\$29.98
06/01/2019	\$32.71
07/01/2019	\$41.46
08/01/2019	\$39.12
09/01/2019	\$30.14
10/01/2019	\$31.68
11/01/2019	\$34.13
12/01/2019	\$36.67

01/01/2020	\$37.72
02/01/2020	\$36.70
03/01/2020	\$33.93
04/01/2020	\$30.95
05/01/2020	\$31.11
06/01/2020	\$36.87
07/01/2020	\$44.40
08/01/2020	\$44.10
09/01/2020	\$33.56
10/01/2020	\$33.83
11/01/2020	\$35.41
12/01/2020	\$38.21
01/01/2021	\$40.62
02/01/2021	\$39.78
03/01/2021	\$37.07
04/01/2021	\$33.86
05/01/2021	\$34.49
06/01/2021	\$39.24
07/01/2021	\$49.13
08/01/2021	\$45.90
09/01/2021	\$35.72
10/01/2021	\$35.29
11/01/2021	\$38.13
12/01/2021	\$42.33
01/01/2022	\$43.89
02/01/2022	\$42.02
03/01/2022	\$39.10
04/01/2022	\$35.17
05/01/2022	\$36.17
06/01/2022	\$41.31
07/01/2022	\$54.60
08/01/2022	\$49.60
09/01/2022	\$38.38
10/01/2022	\$37.70

11/01/2022	\$41.11
12/01/2022	\$44.70
01/01/2023	\$45.98
02/01/2023	\$46.56
03/01/2023	\$41.69
04/01/2023	\$36.45
05/01/2023	\$37.73
06/01/2023	\$44.75
07/01/2023	\$58.57
08/01/2023	\$54.30
09/01/2023	\$38.35
10/01/2023	\$38.82
11/01/2023	\$42.72
12/01/2023	\$46.08
01/01/2024	\$47.63
02/01/2024	\$48.87
03/01/2024	\$43.06
04/01/2024	\$38.68
05/01/2024	\$38.61
06/01/2024	\$46.24
07/01/2024	\$60.71
08/01/2024	\$54.44
09/01/2024	\$40.10
10/01/2024	\$41.82
11/01/2024	\$44.81
12/01/2024	\$48.67
01/01/2025	\$49.78
02/01/2025	\$47.56
03/01/2025	\$44.61
04/01/2025	\$41.60
05/01/2025	\$40.85
06/01/2025	\$47.79
07/01/2025	\$63.49
08/01/2025	\$57.98

07/01/2028	\$75.05
08/01/2028	\$64.80
09/01/2028	\$49.67
10/01/2028	\$49.41
11/01/2028	\$53.39
12/01/2028	\$56.34
01/01/2029	\$58.19
02/01/2029	\$57.51
03/01/2029	\$54.58
04/01/2029	\$48.56
05/01/2029	\$49.38
06/01/2029	\$59.14
07/01/2029	\$75.97
08/01/2029	\$68.08
09/01/2029	\$49.68
10/01/2029	\$50.66
11/01/2029	\$55.45
12/01/2029	\$59.54
01/01/2030	\$61.16
02/01/2030	\$61.11
03/01/2030	\$56.08
04/01/2030	\$51.74
05/01/2030	\$50.97
06/01/2030	\$60.07
07/01/2030	\$74.35
08/01/2030	\$71.38
09/01/2030	\$56.40
10/01/2030	\$53.94
11/01/2030	\$56.69
12/01/2030	\$62.26
01/01/2031	\$62.95
02/01/2031	\$61.95
03/01/2031	\$59.22
04/01/2031	\$53.98

05/01/2031	\$54.36
06/01/2031	\$61.84
07/01/2031	\$77.93
08/01/2031	\$74.64
09/01/2031	\$55.73
10/01/2031	\$56.74
11/01/2031	\$58.58
12/01/2031	\$64.82
01/01/2032	\$67.10
02/01/2032	\$65.24
03/01/2032	\$61.27
04/01/2032	\$54.64
05/01/2032	\$54.84
06/01/2032	\$63.22
07/01/2032	\$80.14
08/01/2032	\$77.98
09/01/2032	\$57.49
10/01/2032	\$57.78
11/01/2032	\$61.30
12/01/2032	\$67.34
01/01/2033	\$69.16
02/01/2033	\$68.52
03/01/2033	\$63.54
04/01/2033	\$58.15
05/01/2033	\$56.89
06/01/2033	\$67.77
07/01/2033	\$85.53
08/01/2033	\$79.26
09/01/2033	\$59.39
10/01/2033	\$61.31
11/01/2033	\$65.74
12/01/2033	\$71.47
01/01/2034	\$74.92
02/01/2034	\$73.84

03/01/2034	\$69.44
04/01/2034	\$62.80
05/01/2034	\$62.74
06/01/2034	\$72.80
07/01/2034	\$90.55
08/01/2034	\$84.03
09/01/2034	\$63.68
10/01/2034	\$65.56
11/01/2034	\$71.27
12/01/2034	\$76.80
01/01/2035	\$79.42
02/01/2035	\$78.30
03/01/2035	\$70.39
04/01/2035	\$66.70
05/01/2035	\$65.92
06/01/2035	\$78.02
07/01/2035	\$93.89
08/01/2035	\$90.19
09/01/2035	\$67.25
10/01/2035	\$68.18
11/01/2035	\$75.75
12/01/2035	\$80.70
01/01/2036	\$81.78
02/01/2036	\$79.44
03/01/2036	\$74.79
04/01/2036	\$69.55
05/01/2036	\$68.08
06/01/2036	\$79.30
07/01/2036	\$97.67
08/01/2036	\$93.66
09/01/2036	\$70.32
10/01/2036	\$73.43
11/01/2036	\$77.15
12/01/2036	\$83.49



01/01/2037	\$86.51
02/01/2037	\$84.15
03/01/2037	\$76.09
04/01/2037	\$72.79
05/01/2037	\$70.45
06/01/2037	\$81.25
07/01/2037	\$102.92
08/01/2037	\$96.75
09/01/2037	\$73.38
10/01/2037	\$74.65
11/01/2037	\$80.13
12/01/2037	\$87.47

09/01/2025	\$42.14
10/01/2025	\$42.73
11/01/2025	\$45.64
12/01/2025	\$51.77
01/01/2026	\$53.38
02/01/2026	\$51.00
03/01/2026	\$46.61
04/01/2026	\$43.23
05/01/2026	\$42.91
06/01/2026	\$50.38
07/01/2026	\$68.71
08/01/2026	\$60.46
09/01/2026	\$43.68
10/01/2026	\$45.56
11/01/2026	\$47.70
12/01/2026	\$52.88
01/01/2027	\$55.32
02/01/2027	\$52.58
03/01/2027	\$48.19
04/01/2027	\$46.18
05/01/2027	\$45.60
06/01/2027	\$54.37
07/01/2027	\$71.61
08/01/2027	\$63.46
09/01/2027	\$46.94
10/01/2027	\$47.80
11/01/2027	\$49.16
12/01/2027	\$54.25
01/01/2028	\$55.64
02/01/2028	\$53.59
03/01/2028	\$50.29
04/01/2028	\$47.07
05/01/2028	\$46.19
06/01/2028	\$56.04

## Midwest Fall 2015 Reference Case

## Initial Market Entry- Defined Capacity Additions in the Midwest

Unit Name	Unit Type	Market Area	Fuel Type	Installation Date	Name Plate (MW)
Lonesome Creek Station GT 2	GT	SPP-Dak	Gas	01/01/2015	60.5
Lonesome Creek Station GT 3	GT	SPP-Dak	Gas	01/01/2015	60.5
Eagle Valley (H T Pritchard) CC	CC	MISO-IN	Gas	04/01/2017	644
Coldwater BPU Peaking Plant GT1	GT	MISO-MI	Gas	07/01/2015	4.4
Coldwater BPU Peaking Plant GT2	GT	MISO-MI	Gas	07/01/2015	4.4
Coldwater BPU Peaking Plant GT3	GT	MISO-MI	Gas	07/01/2015	4.4
Holland Energy Park CC	CC	MISO-MI	Gas	11/01/2016	145
Lowell (MI) 2	GT	MISO-MI	Gas	11/01/2015	3.6
Carroll County Energy Project CC1	CC	PJM-AEP	Gas	06/01/2017	700
Meadville Power Station CFB	ST	PJM-AEP	Other	01/01/2016	90
Armstrong (PA) IC1 5	IC	PJM-APS	Oil	06/01/2016	10
HP Hood ST1	ST	PJM-APS	Gas	06/01/2015	15
Oregon Energy Center (OH) CC1	CC	PJM-ATSI	Gas	07/01/2017	800
Nelson Energy Center CC1	CC	PJM-CE	Gas	05/01/2015	285.3
Nelson Energy Center CC2	CC	PJM-CE	Gas	05/01/2015	285.3
Panda Patriot Project CC1	CC	PJM-EPA	Gas	06/01/2016	472
Panda Patriot Project CC2	CC	PJM-EPA	Gas	06/01/2016	472
Garrison Energy Center CC1	CC	PJM-MidE	Gas	06/01/2015	309.2
Wildcat Point Generation Facility CC1	CC	PJM-MidE	Gas	05/01/2017	1000
CPV Woodbridge Energy Center CC1	CC	PJM-MidE	Gas	03/01/2016	700
Clayville Switch GT GT1	GT	PJM-MidE	Gas	09/01/2015	60
Newark Energy Center (NJ) CC1	CC	PJM-MidE	Gas	09/01/2015	755
CPV Woodbridge Energy Center IC1	IC	PJM-MidE	Oil	03/01/2016	1.5
CPV St Charles CC	CC	PJM-SW	Gas	06/01/2017	746
Keys Energy Center CC1	CC	PJM-SW	Gas	06/01/2017	800
Perryman GT6-1	GT	PJM-SW	Gas	06/01/2015	60
Perryman GT6-2	GT	PJM-SW	Gas	06/01/2015	60
Stone Wall Energy Park CC1	CC	PJM-SW	Gas	02/01/2017	544
North Meshoppen II Project IC1	IC	PJM-WPA	Gas	12/01/2015	4.4
North Meshoppen II Project IC2	IC	PJM-WPA	Gas	12/01/2015	4.4
North Meshoppen II Project IC3	IC	PJM-WPA	Gas	12/01/2015	4.4
North Meshoppen II Project IC4	IC	PJM-WPA	Gas	12/01/2015	4.4
North Meshoppen II Project IC5	IC	PJM-WPA	Gas	12/01/2015	4.4
Panda Liberty Project CC1	CC	PJM-WPA	Gas	01/01/2016	468
Panda Liberty Project CC2	CC	PJM-WPA	Gas	03/01/2016	468
Morgan City CC	CC	MISO-Gulf	Gas	12/01/2015	84
IP&L Co Marshalltown Combined Cyle CC	CC	MISO-IA	Gas	04/01/2017	656.8

North Plant (IA WAVE) 17	IC	MISO-IA	Oil	06/01/2015	1.8
North Plant (IA WAVE) 18	IC	MISO-IA	Oil	06/01/2015	1.8
North Plant (IA WAVE) 19	IC	MISO-IA	Oil	06/01/2015	1.8
North Plant (IA WAVE) 20	IC	MISO-IA	Oil	06/01/2015	1.8
Wapsie Valley Creamery IC	IC	MISO-IA	Oil	04/01/2015	1.4
Queen Elizabeth CC 2	CC	SK-CAN	Gas	12/01/2015	205
Charles D Lamb Energy Center GT	GT	SPP-C	Gas	05/01/2015	103
Stillwater Utilities Authority IC 1	IC	SPP-C	Gas	08/01/2016	18.666
Stillwater Utilities Authority IC 2	IC	SPP-C	Gas	08/01/2016	18.666
Stillwater Utilities Authority IC 3	IC	SPP-C	Gas	08/01/2016	18.666
Floydada Station ELK1	GT	SPP-C	Gas	06/01/2015	202
Lonesome Creek Station GT 4	GT	SPP-Dak	Gas	06/01/2016	45
Lonesome Creek Station GT 5	GT	SPP-Dak	Gas	06/01/2016	45
Riverton CC	CC	SPP-KSMO	Gas	06/01/2016	243
Wamego 10	IC	SPP-KSMO	Gas	11/01/2015	3.2
Fredericktown Energy Center GT1	GT	MISO-MO	Gas	06/01/2015	13.8
Fredericktown Energy Center GT2	GT	MISO-MO	Gas	06/01/2015	13.8
Brunswick County Power Station CC	CC	PJM-S	Gas	06/01/2016	1358
Elkton GEN3	IC	PJM-S	Gas	10/01/2015	1
Elkton GEN4	IC	PJM-S	Gas	10/01/2015	0.2
Blue Plains Advanced Wastewater Treatment Plant CHP GT2	ST	PJM-SW	Biomass	06/01/2015	4.666
Blue Plains Advanced Wastewater Treatment Plant CHP GT3	ST	PJM-SW	Biomass	06/01/2015	4.666
Orchard Hills Landfill IC1	IC	PJM-CE	Landfill Gas	04/01/2016	2.3
Orchard Hills Landfill IC2	IC	PJM-CE	Landfill Gas	04/01/2016	2.3
Orchard Hills Landfill IC3	IC	PJM-CE	Landfill Gas	04/01/2016	2.3
Orchard Hills Landfill IC4	IC	PJM-CE	Landfill Gas	04/01/2016	2.3
Orchard Hills Landfill IC5	IC	PJM-CE	Landfill Gas	04/01/2016	2.3
Orchard Hills Landfill IC6	IC	PJM-CE	Landfill Gas	04/01/2016	2.3
Glasgow Regional Landfill GT1	IC	PJM-DEOK	Landfill Gas	11/01/2015	1
Frederick County Waste To Energy ST	ST	PJM-APS	Biomass	03/01/2018	56
Orchard Hill LFG GEN3	IC	PJM-AEP	Landfill Gas	09/01/2015	3.2
John L McClellan Memorial Veterans Hospital Solar PV1	SL	MISO-Ark	Solar	10/01/2015	1.8
SR Camden PV1	SL	MISO-Ark	Solar	12/01/2015	1.35
DD Hay Road Solar 23 PV1	SL	PJM-MidE	Solar	05/01/2015	1.2
Carroll Area Wind Farm WT1 9	WT	MISO-IA	Wind	02/01/2015	20.7
Hankom T1 WT1	WT	MISO-IA	Wind	09/01/2015	3
Huxley Wind (Optimum) WT1	WT	MISO-IA	Wind	12/01/2016	3
Marshall Wind Project (IA) WT	WT	MISO-IA	Wind	12/01/2015	210
Optimum Wind WT 1 3	WT	MISO-IA	Wind	12/01/2015	3
Optimum Wind WT 4 7	WT	MISO-IA	Wind	12/01/2015	3
Optimum Wind WT 8	WT	MISO-IA	Wind	12/01/2015	3
Optimum Wind WT4	WT	MISO-IA	Wind	12/01/2015	3
Optimum Wind WT5	WT	MISO-IA	Wind	12/01/2015	3

Panther Creek Wind WT1 18	WT	MISO-IA	Wind	12/01/2015	150
Summit Lundy T1 WT1	WT	MISO-IA	Wind	09/01/2015	3
Venus Wind 3 WT1	WT	MISO-IA	Wind	10/01/2015	2.5
Victory Wind Farm WT167	WT	MISO-IA	Wind	12/01/2015	100
Vienna Wind Farm WT 46 65	WT	MISO-IA	Wind	12/01/2015	43.7
Highland Wind Energy HLWF	WT	SPP-Dak	Wind	12/01/2015	15.5
Hoopeston Wind Project WT1 49	WT	MISO-IL	Wind	03/01/2015	98
Brightfields East St Louis Solar PV1	SL	MISO-IL	Solar	10/01/2015	20
Carbondale Solar Project PV1	SL	MISO-IL	Solar	06/01/2016	20
Rockford Solar Project PV2	SL	PJM-CE	Solar	11/01/2016	17
Midland Wind Farm WT1 52	WT	MISO-IA	Wind	12/01/2016	104
Cardinal Point Wind Farm WT1 116	WT	MISO-IL	Wind	12/01/2017	150
Dogtown Wind LLC WT1 49	WT	MISO-IL	Wind	03/01/2016	100
Ford Ridge Wind Project WT1 67	WT	MISO-IL	Wind	06/01/2016	100.5
Meridien Wind Farm WT1 81	WT	MISO-IL	Wind	12/01/2015	175
Sangamon Wind Farm WT1	WT	MISO-IL	Wind	12/01/2016	33
Sangamon Wind Farm WT2	WT	MISO-IL	Wind	12/01/2016	50
Bishop Hill Wind Energy Center WT184 266	WT	PJM-CE	Wind	10/01/2016	132.8
Green River Wind WT20 28	WT	PJM-CE	Wind	09/01/2016	20.7
Green River Wind WT29 81	WT	PJM-CE	Wind	03/01/2017	121.9
Kelly Creek Wind Farm WT1 108	WT	PJM-CE	Wind	12/01/2016	200
Pilot Hill Wind Project WT1 91	WT	PJM-CE	Wind	10/01/2015	154.7
Pilot Hill Wind Project WT104 199	WT	PJM-CE	Wind	11/01/2016	163.2
Pilot Hill Wind Project WT92 103	WT	PJM-CE	Wind	10/01/2015	22.2
Crawfordsville Solar Park PV1	SL	MISO-IN	Solar	09/01/2015	3
Peru Solar Farm PV1	SL	MISO-IN	Solar	08/01/2015	3
Tell City Solar Park PV1	SL	MISO-IN	Solar	07/01/2015	1
Belmont Solar (IN) PV1	SL	MISO-IN	Solar	10/01/2015	3.8
Henryville Solar RES PV1	SL	MISO-IN	Solar	12/01/2016	1.1
Kokomo Solar Park PV1	SL	MISO-IN	Solar	04/01/2016	6.5
Lanesville Solar RES PV1	SL	MISO-IN	Solar	12/01/2015	1.1
Marion Solar LNG PV1	SL	MISO-IN	Solar	10/01/2015	1.5
New Castle Solar RES PV1	SL	MISO-IN	Solar	12/01/2015	1.1
Scotland Solar RES PV1	SL	MISO-IN	Solar	12/01/2015	1.1
Deer Creek Solar PV1	SL	PJM-AEP	Solar	10/01/2016	2.5
New Haven Solar RES PV1	SL	PJM-AEP	Solar	12/01/2015	1.1
Olive Solar Power Project PV1	SL	PJM-AEP	Solar	10/01/2016	5
Pendleton Solar Park PV1	SL	PJM-AEP	Solar	10/01/2015	2
Twin Branch Solar PV1	SL	PJM-AEP	Solar	12/01/2015	2.6
Flat Rock Wind WT1 80	WT	MISO-IN	Wind	12/01/2016	180
Purdue Energy Park WT1 12	WT	MISO-IN	Wind	10/01/2015	20
Amazon Wind Farm WT356 448	WT	PJM-AEP	Wind	12/01/2015	150.4
Bluff Point Wind Farm WT 1 30	WT	PJM-AEP	Wind	12/01/2018	60

Colby Solar PV	SL	SPP-KSMO	Solar	02/01/2015	1
Alexander Wind Farm WT 1 21	WT	SPP-KSMO	Wind	10/01/2015	48
Buckeye Wind Energy Center Project WT 1 125	WT	SPP-KSMO	Wind	12/01/2015	200
Buffalo Dunes Wind Project WT	WT	SPP-KSMO	Wind	06/01/2016	180
Doyle North 1 WT 1 84	WT	SPP-KSMO	Wind	12/01/2015	200
Doyle North 2 WT 1 20	WT	SPP-KSMO	Wind	12/01/2015	60
Marshall Wind Project (KS) WT 1	WT	SPP-KSMO	Wind	07/01/2016	75
Ringneck Prairie Wind Generation WT1 28	WT	SPP-KSMO	Wind	12/01/2015	70
Slate Creek Wind Project WT 1 75	WT	SPP-KSMO	Wind	12/01/2015	150
Waverly Wind Farm LLC WT	WT	SPP-KSMO	Wind	12/01/2015	200
Western Plains Wind Project WT1	WT	SPP-KSMO	Wind	12/01/2015	200.1
Western Plains Wind Project WT2	WT	SPP-KSMO	Wind	06/01/2016	500
Cecil County School of Technology Solar PV1	SL	PJM-MidE	Solar	04/01/2015	2.5
Church Hill Solar Farm PV1	SL	PJM-MidE	Solar	05/01/2016	6
Rockfish Solar PV1	SL	PJM-SW	Solar	10/01/2015	10.285
Dominos Farms PV1	SL	MISO-MI	Solar	09/01/2015	1.1
FWH Solar PV1	SL	MISO-MI	Solar	05/01/2015	1.038
IKEA Solar Canton PV2	SL	MISO-MI	Solar	10/01/2015	0.24
Watervliet Solar PV1	SL	PJM-AEP	Solar	10/01/2016	4.6
Apple Blossom Wind WT1 29	WT	MISO-MI	Wind	12/01/2016	100
Deerfield Wind Farm WT1 72	WT	MISO-MI	Wind	12/01/2016	150
Fowler Farms LLC WT 1 39	WT	MISO-MI	Wind	12/01/2015	64
Blue Lake Sewage Solar PV	SL	MISO-MN	Solar	11/01/2015	1.25
Odell Wind Farm WT1 100	WT	MISO-IA	Wind	12/01/2015	200
Pleasant Valley Wind (Res) WT 1 88	WT	MISO-IA	Wind	10/01/2015	176
Pleasant Valley Wind (Res) WT 89 100	WT	MISO-IA	Wind	10/01/2015	24
South Fork Wind Farm WT	WT	MISO-IA	Wind	12/01/2016	15
Black Oak Wind Farm (MN) WT1 39	WT	MISO-MN	Wind	12/01/2016	78
Geronimo Goodhue Wind WT1 33	WT	MISO-MN	Wind	12/01/2015	95
Lake Country Wind Energy WT1 20	WT	MISO-MN	Wind	11/01/2015	41
Sibley County Wind Project WT1 10	WT	MISO-MN	Wind	11/01/2015	19.5
Stoneray Wind WT1 55	WT	MISO-MN	Wind	12/01/2015	105
Noble Flat Hill Windpark I WT1 40	WT	MISO-ND	Wind	12/01/2015	201
Noble Flat Hill Windpark I WT41 134	WT	MISO-ND	Wind	06/01/2016	201
IKEA St Louis Solar PV1	SL	MISO-MO	Solar	11/01/2015	1
Creswell Solar PV1	SL	PJM-S	Solar	05/01/2015	12
Everetts Solar PV1	SL	PJM-S	Solar	04/01/2015	5
SoINCPower5 Solar PV1	SL	PJM-S	Solar	05/01/2015	5
Two Mile Desert Road Solar Farm PV1	SL	PJM-S	Solar	06/01/2015	6.498
Bradley PV1 PV1	SL	PJM-S	Solar	10/01/2015	5
Conetoe II Solar PV1	SL	PJM-S	Solar	12/01/2015	80
Downs Farm PV1	SL	PJM-S	Solar	10/01/2015	4.99
GKS Solar Farm PV1	SL	PJM-S	Solar	10/01/2015	6.57

Gates Solar PV1	SL	PJM-S	Solar	12/01/2015	6.3
Green Farm PV1	SL	PJM-S	Solar	12/01/2015	6.25
Greenville Farm PV1	SL	PJM-S	Solar	04/01/2016	20
Schell Solar Farm PV1	SL	PJM-S	Solar	10/01/2015	5
Seaboard Solar PV1	SL	PJM-S	Solar	06/01/2016	4.999
Simons Farm PV1	SL	PJM-S	Solar	11/01/2015	6.25
Weldon Solar PV1	SL	PJM-S	Solar	06/01/2016	5
Bison Wind Project WT98 162	WT	MISO-ND	Wind	01/01/2015	204.8
Rough Rider Wind Farm WT1 116	WT	MISO-MN	Wind	12/01/2015	175
Antelope Hills Wind Project WT 1 86	WT	MISO-ND	Wind	12/01/2015	172
Border Winds Project WT1 75	WT	MISO-ND	Wind	10/01/2015	150
Sunflower Wind Project WT 1 55	WT	MISO-ND	Wind	12/01/2015	75.62
Sunflower Wind Project WT 56 81	WT	MISO-ND	Wind	12/01/2015	34.375
Thunder Spirit Wind Project WT1 43	WT	MISO-ND	Wind	12/01/2015	107.5
Courtenay Wind Farm WT1 100	WT	SPP-Dak	Wind	03/01/2016	200
JustWIND Logan County Project WT1 42	WT	SPP-Dak	Wind	10/01/2015	100.8
JustWIND Logan County Project WT43 153	WT	SPP-Dak	Wind	05/01/2016	266.4
Merricourt Wind Project WT1 75	WT	SPP-Dak	Wind	09/01/2016	150
New Frontier Wind Energy Project WT	WT	SPP-Dak	Wind	09/01/2015	102
Grande Prairie Wind Farm WT 1 50	WT	SPP-NE	Wind	07/01/2016	100
Verdigre Wind Farm WT1 47	WT	SPP-NE	Wind	12/01/2015	79.9
Volkswind Nebraska Wind Project WT 1 22	WT	SPP-NE	Wind	12/01/2016	50.6
Volkswind Nebraska Wind Project WT 23 55	WT	SPP-NE	Wind	12/01/2016	73.6
Harmony Solar PV1	SL	PJM-MidE	Solar	06/01/2015	3
Howell Solar PV1	SL	PJM-MidE	Solar	01/01/2015	9.9
Skudera Solar Farm PV1	SL	PJM-MidE	Solar	06/01/2015	2
Kinsley Landfill Solar PV1	SL	PJM-MidE	Solar	01/01/2015	8.6
North Run Solar PV1	SL	PJM-MidE	Solar	01/01/2015	5
Parkland Landfill Solar PV1	SL	PJM-MidE	Solar	01/01/2015	7.8
Delilah Road Landfill PV1	SL	PJM-MidE	Solar	02/01/2016	14.812
Hanover Solar PV1	SL	PJM-MidE	Solar	11/01/2015	5
Mountain Creek Solar Facility MC	SL	PJM-MidE	Solar	04/01/2016	4.6
Northpark Solar Farm 2 PV1	SL	PJM-MidE	Solar	06/01/2016	12.4
Warfield II Solar Project PV1	SL	PJM-MidE	Solar	12/01/2015	20
Mescalero Ridge Wind Project WT1	WT	SPP-C	Wind	06/01/2017	320
Mescalero Ridge Wind Project WT2	WT	SPP-C	Wind	12/01/2019	180
Owens Corning Toledo Solar PV1	SL	PJM-ATSI	Solar	10/01/2015	2.4
Buckeye Wind Project WT1 52	WT	PJM-AEP	Wind	05/01/2018	100
Buckeye Wind Project WT53 104	WT	PJM-AEP	Wind	05/01/2018	100
Findlay Wind Farm WT1 5	WT	PJM-AEP	Wind	12/01/2015	7.5
Hardin Wind Farm WT1 176	WT	PJM-AEP	Wind	12/01/2016	300
Northwest Ohio Wind Energy WT1	WT	PJM-AEP	Wind	12/01/2015	100
Northwest Ohio Wind Energy WT2	WT	PJM-AEP	Wind	12/01/2015	150

Greenwich Windpark WT1 25	WT	PJM-ATSI	Wind	06/01/2016	60
Hog Creek Wind Farm WT1 29	WT	PJM-ATSI	Wind	06/01/2017	51.69
Osage County Wind Project WT1 94	WT	SPP-C	Wind	07/01/2015	150
Mustang PV1	SL	SPP-C	Solar	10/01/2015	2.5
Arbuckle Mountain Wind Farm WT1 50	WT	SPP-C	Wind	11/01/2015	100
Balko Wind Project WT1	WT	SPP-C	Wind	09/01/2015	200
Balko Wind Project WT2	WT	SPP-C	Wind	09/01/2015	100
Chisholm View Wind WT 2	WT	SPP-C	Wind	12/01/2015	98.8
Goodwell Wind I WT	WT	SPP-C	Wind	12/01/2015	66.66
Goodwell Wind II WT1	WT	SPP-C	Wind	12/01/2015	66.67
Goodwell Wind III WT	WT	SPP-C	Wind	12/01/2015	66.67
Grant Wind (OK) WT 1 66	WT	SPP-C	Wind	03/01/2016	150
Kay Wind Farm Project WT 1 130	WT	SPP-C	Wind	11/01/2015	313.95
Kingfisher Wind Farm WT 1 122	WT	SPP-C	Wind	11/01/2015	298
Little Elk Wind Project LLC WT	WT	SPP-C	Wind	12/01/2015	74
PA Solar Park PV2	SL	PJM-EPA	Solar	12/01/2015	10.6
Caln Township Solar PV1	SL	PJM-MidE	Solar	01/01/2016	2.4
Caln Township Solar PV2	SL	PJM-MidE	Solar	01/01/2017	2.4
Caln Township Solar PV3	SL	PJM-MidE	Solar	01/01/2018	4.3
Beethoven Wind LLC WT1 22	WT	SPP-Dak	Wind	05/01/2015	40.7
Beethoven Wind LLC WT23 43	WT	SPP-Dak	Wind	05/01/2015	38.85
Oak Tree Energy WT1 11	WT	SPP-Dak	Wind	01/01/2015	19.5
Campbell County Wind (SD) WT1 55	WT	SPP-Dak	Wind	12/01/2015	95
Morse Wind Farm WT1 5	WT	SK-CAN	Wind	03/01/2015	11.5
Morse Wind Farm WT6 10	WT	SK-CAN	Wind	03/01/2015	11.5
Crosby County Wind Farm WT2	WT	SPP-C	Wind	12/01/2016	129
Fiber Winds WT1 12	WT	SPP-C	Wind	12/01/2015	36
Fiber Winds WT13 29	WT	SPP-C	Wind	12/01/2015	45.9
Goodnight Wind Energy Project WT1	WT	SPP-C	Wind	12/01/2016	240
Park 500 Philip Morris USA PV	SL	PJM-S	Solar	10/01/2015	2.45
Beech Ridge Wind Farm (WV) WT68 100	WT	PJM-APS	Wind	12/01/2015	52.5
					<b>25,370</b>





SPP	SPP	SPP-KSMO	2022	0	0	0	0	0	0	0	0	400
SPP	SPP	SPP-KSMO	2023	0	0	0	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2024	0	0	0	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2025	0	0	0	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2026	0	0	425	180	0	0	0	0	0
SPP	SPP	SPP-KSMO	2027	0	0	425	360	0	0	0	0	0
SPP	SPP	SPP-KSMO	2028	0	0	425	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2029	0	0	0	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2030	0	0	425	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2031	0	0	425	180	0	0	0	0	0
SPP	SPP	SPP-KSMO	2032	0	0	0	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2033	0	0	425	180	0	0	0	0	0
SPP	SPP	SPP-KSMO	2034	0	0	425	360	0	0	0	0	0
SPP	SPP	SPP-KSMO	2035	0	0	425	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2036	0	0	0	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2037	0	0	425	180	0	0	0	0	0
SPP	SPP	SPP-KSMO	2038	0	0	0	180	0	0	0	0	0
SPP	SPP	SPP-KSMO	2039	0	0	425	0	0	0	0	0	0
SPP	SPP	SPP-KSMO	2040	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2016	0	0	0	0	0	0	0	0	0
SPP	MRO	SPP-NE	2017	0	0	0	0	0	0	0	0	0
SPP	MRO	SPP-NE	2018	0	0	0	0	0	0	0	0	0
SPP	MRO	SPP-NE	2019	0	0	0	0	0	0	0	0	0
SPP	MRO	SPP-NE	2020	0	0	0	0	0	0	0	0	0
SPP	MRO	SPP-NE	2021	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2022	0	0	425	0	0	0	0	0	150
SPP	MRO	SPP-NE	2023	0	0	425	0	0	0	0	0	150
SPP	MRO	SPP-NE	2024	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2025	490	0	425	360	0	0	0	0	100
SPP	MRO	SPP-NE	2026	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2027	0	0	0	180	0	0	0	0	0
SPP	MRO	SPP-NE	2028	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2029	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2030	0	0	0	180	0	0	0	0	0
SPP	MRO	SPP-NE	2031	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2032	0	0	425	0	0	0	0	0	0
SPP	MRO	SPP-NE	2033	0	0	425	360	0	0	0	0	0
SPP	MRO	SPP-NE	2034	490	0	425	360	0	0	0	0	0
SPP	MRO	SPP-NE	2035	0	0	425	180	0	0	0	0	0

