



New Service Queue Update

Awais Ghayas

Engineer, Interconnection Analysis

TEAC

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- All study reports located at: <https://pjm.com/planning.aspx>
- Covers period between September 1, 2020 and August 31, 2021
- 678 System Impact Study Reports Issued
- 35.67 million net increase in total Network Upgrade costs
 - 44.18 million in new Network Upgrades
 - 9.65 million decrease for cancelled Network Upgrades
 - 1.15 million increase from scope/cost changes



New System Impact Study Reports



Merchant Transmission Projects

Queue	Project Name	TO	Rights Requested
AF2-442	Vernon 115 kV	JCPL	84 NFTIR/NFTWR
AF2-443	Vernon 115 kV	JCPL	84 NFTIR/NFTWR



Long Term Firm Projects

- None



Generation Interconnection Projects - ACE

Queue	Fuel	MW Energy	MW Capacity
AE1-104	Offshore Wind	432	121.4
AE2-222	Offshore Wind	300	85.424
AE2-251	Offshore Wind	1200	337.2
AF2-016	Storage	300	120
AF2-019	Storage	40	40
AF2-020	Storage	20	8
AF2-021	Storage	20	8
AF2-023	Storage	50	20
AF2-024	Storage	50	20
AF2-025	Storage	20	20
AF2-174	Solar	11	4.62

Queue	Fuel	MW Energy	MW Capacity
AG1-001	Solar	31	11.78
AG1-088	Storage	0	0
AG1-103	Storage	0	0
AG1-110	Storage	0	20
AG1-116	Storage	0	0
AG1-117	Storage	0	0
AG1-129	Solar	51	30.6
AG1-254	Solar; Storage	38	25.3
AG1-255	Solar; Storage	55	36.7
AG1-299	Solar	3	1.8
AG1-300	Solar	3	1.8



Generation Interconnection Projects - ACE

Queue	Fuel	MW Energy	MW Capacity
AG1-476	Natural Gas; Other	0	33.1
AG1-499	Solar	10	6
AB1-087	Natural Gas	575	550



Generation Interconnection Projects - AEP

Queue	Fuel	MW Energy	MW Capacity
AB1-088	Natural Gas	575	550
AC2-157	Solar	200	76
AD1-043	Solar	120	45.6
AD1-070	Solar	205	36
AD1-101	Solar	49.9	18.96
AD1-119	Solar	49.9	18.96
AD2-112	Natural Gas; Other	20	50.4
AD2-180	Wind	110	15.08
AE1-064	Solar	102.1	67.3
AE1-108	Solar	149.5	89.7
AE1-109	Solar	20	8.7

Queue	Fuel	MW Energy	MW Capacity
AE1-130	Solar	83	55.3
AE1-146	Solar	120	81.8
AE1-207	Solar	160	67.2
AE1-208	Solar	130	55
AE1-209	Wind	100	13
AE1-210	Wind	100	13
AE1-245	Wind	150	19.5
AE1-250	Solar; Storage	150	90
AE2-030	Solar	18	7.56
AE2-290	Solar	100	60
AF1-148	Solar; Storage	159	95.4



Generation Interconnection Projects - AEP

Queue	Fuel	MW Energy	MW Capacity
AF1-223	Solar	150	90
AF2-014	Solar	150	90
AF2-018	Solar	200	133.9
AF2-048	Solar	70	46.6
AF2-059	Solar	20	8.4
AF2-068	Solar	150	90
AF2-078	Solar; Storage	200	120
AF2-083	Solar	150	100
AF2-094	Solar; Storage	40	26.4
AF2-105	Solar	100	60
AF2-106	Solar	150	90

Queue	Fuel	MW Energy	MW Capacity
AF2-107	Solar	50	32.3
AF2-122	Solar	107.7	64.62
AF2-125	Solar	54	35.5
AF2-127	Solar	38	24.9
AF2-132	Solar	300	180
AF2-133	Solar	300	180
AF2-134	Solar	100	60
AF2-137	Solar	500	210
AF2-149	Solar	80	32
AF2-162	Solar	45	30
AF2-173	Solar	200	84



Generation Interconnection Projects - AEP

Queue	Fuel	MW Energy	MW Capacity
AF2-177	Wind	200	26
AF2-186	Solar	45	18.9
AF2-188	Solar	112	67.2
AF2-189	Solar	150	90
AF2-191	Solar	110	66
AF2-198	Storage	22.4	8.96
AF2-204	Solar; Storage	110	72
AF2-205	Solar	200	120
AF2-209	Solar; Storage	140	95.4
AF2-211	Solar	100	60
AF2-223	Solar; Storage	200	120

Queue	Fuel	MW Energy	MW Capacity
AF2-224	Solar	100	42
AF2-291	Solar	100	60
AF2-302	Solar	20	12
AF2-328	Solar	75	45
AF2-335	Solar	100	60
AF2-359	Solar	125	75
AF2-370	Storage	0	20
AF2-371	Solar	84	50.4
AF2-375	Solar	129.6	77.76
AF2-376	Storage	50	20
AF2-377	Storage	50	20



Generation Interconnection Projects - AEP

Queue	Fuel	MW Energy	MW Capacity
AF2-382	Solar	75	45
AF2-388	Wind	200	35.2
AF2-395	Natural Gas	51.1	89.6
AF2-407	Storage	300	300
AF2-408	Storage	80	80
AF2-440	Solar	50	25
AG1-003	Solar; Storage	400	226
AG1-004	Storage	200	200
AG1-017	Wind	16.64	2.93
AG1-022	Solar	20	12
AG1-024	Solar	85	35.7

Queue	Fuel	MW Energy	MW Capacity
AG1-025	Solar	20	8.4
AG1-034	Solar	127.5	53.55
AG1-047	Solar	100	60
AG1-049	Solar	0	17.6
AG1-066	Solar	80	48
AG1-076	Solar	0	46
AG1-089	Storage	30	12
AG1-091	Solar	50	32.4
AG1-092	Storage	0	0
AG1-107	Solar	150	85.7
AG1-109	Storage	0	25



Generation Interconnection Projects - AEP

Queue	Fuel	MW Energy	MW Capacity
AG1-125	Solar	400	234.9
AG1-126	Solar	400	234.9
AG1-136	Storage	100	40
AG1-155	Storage	20	8
AG1-162	Solar	33.4	17.6
AG1-194	Solar; Storage	200	104
AG1-218	Solar	250	150
AG1-219	Solar; Storage	75	39.5
AG1-232	Solar	135	81
AG1-237	Wind	200	26
AG1-311	Solar; Storage	99	69.4

Queue	Fuel	MW Energy	MW Capacity
AG1-324	Solar; Storage	45	31.5
AG1-349	Solar	260	156
AG1-365	Solar	100	60
AG1-366	Storage	50	20
AG1-368	Solar	100	60
AG1-369	Solar	49.9	29.94
AG1-410	Solar	300	180
AG1-417	Solar	50	30
AG1-418	Solar	50	30
AG1-424	Solar	100	60
AG1-436	Solar	125	75



Generation Interconnection Projects - AEP

Queue	Fuel	MW Energy	MW Capacity
AG1-447	Storage	55	55
AG1-448	Storage	55	55
AG1-453	Solar	140	84
AG1-454	Storage	50	50
AG1-456	Storage	30	30
AG1-468	Solar	14	8.4
AG1-508	Wind	63.3	9.3
AG1-509	Wind	105.4	15.5
AG1-528	Solar	225	135
AG1-554	Solar	49.99	32.7
AG1-555	Solar; Storage	120	88.4

Queue	Fuel	MW Energy	MW Capacity
AG1-562	Solar	250	150



Generation Interconnection Projects - APS

Queue	Fuel	MW Energy	MW Capacity
AC2-195	Solar	99.96	62.1
AD1-081	Solar	20	13.2
AD1-103	Wind	500.4	65.052
AD1-118	Natural Gas	60	60
AE2-226	Solar	99	59.4
AE2-309	Solar; Storage	19.84	16.66
AE2-333	Solar	100	60
AF1-022	Solar	14	8.4
AF1-099	Solar; Storage	126.5	75.9
AF2-029	Storage	20	8
AF2-075	Solar	50	30

Queue	Fuel	MW Energy	MW Capacity
AF2-112	Solar	17	11.4
AF2-116	Solar	20	13.3
AF2-117	Solar	70	46.67
AF2-274	Solar; Storage	3	0
AF2-275	Solar; Storage	3	0
AF2-276	Solar; Storage	3	0
AF2-292	Solar; Storage	1.17	0
AF2-293	Solar; Storage	1.17	0
AF2-295	Solar	20	12
AF2-310	Solar; Storage	20	20
AF2-311	Solar	100	55



Generation Interconnection Projects - APS

Queue	Fuel	MW Energy	MW Capacity
AF2-314	Solar	10	6
AF2-316	Solar	150	82.7
AF2-356	Solar	175	105
AF2-357	Solar	24	14.4
AF2-380	Solar	15	9
AF2-398	Solar	3	1.9
AF2-426	Solar; Storage	1.17	0
AG1-012	Solar; Storage	0	0
AG1-018	Solar	8	3.2
AG1-029	Solar	30	13.6
AG1-045	Solar; Storage	36	18

Queue	Fuel	MW Energy	MW Capacity
AG1-059	Solar	100	60
AG1-095	Solar	16	10.667
AG1-097	Solar	0	13
AG1-101	Solar	10	6.7
AG1-112	Storage	0	10
AG1-141	Solar	5	2.8
AG1-142	Solar	2.5	1.4
AG1-182	Solar	100	65.21
AG1-186	Solar	0	34.79
AG1-246	Solar	7.5	4.9
AG1-257	Solar	19.9	8.3



Generation Interconnection Projects - APS

Queue	Fuel	MW Energy	MW Capacity
AG1-307	Solar; Storage	80	56
AG1-315	Solar	2	0.84
AG1-327	Solar	35	23.1
AG1-363	Solar; Storage	300	220
AG1-386	Solar; Storage	20	15.42
AG1-415	Solar	50	25
AG1-416	Solar; Storage	125	91
AG1-420	Solar	70	42
AG1-514	Storage	10	4
AG1-515	Storage	10	4
AG1-516	Storage	10	4

Queue	Fuel	MW Energy	MW Capacity
AG1-517	Natural Gas	0	0
AG1-527	Solar	215	129
AG1-533	Solar	40	24



Generation Interconnection Projects - ATSI

Queue	Fuel	MW Energy	MW Capacity
AC1-008	Nuclear	6.3	19.2
AC2-017	Nuclear	11.1	11.1
AD2-163	Solar	180	120.7
AE1-001	Nuclear	28.1	7.1
AE1-183	Solar	20	12
AE2-193	Solar	120	50.4
AE2-217	Solar	180	108
AE2-285	Solar	50	30
AF2-004	Natural Gas	33	33
AF2-005	Natural Gas	8	8
AF2-123	Solar	49	20.58

Queue	Fuel	MW Energy	MW Capacity
AF2-126	Solar	51	34
AF2-129	Solar	20	12
AF2-150	Solar	88	36.96
AF2-176	Solar	60	36
AF2-187	Solar	130	78
AF2-322	Solar	199.67	119.8
AF2-341	Solar	20	12
AF2-342	Solar	20	12
AF2-343	Solar	20	12
AF2-344	Solar	20	12
AF2-345	Solar	20	12



Generation Interconnection Projects - ATSI

Queue	Fuel	MW Energy	MW Capacity
AG1-039	Solar	56	23.52
AG1-051	Storage	20	20
AG1-054	Solar	40	25.2
AG1-063	Storage	2.5	0.7
AG1-068	Solar	49.9	30.5
AG1-104	Storage	300	120
AG1-239	Solar	150	90
AG1-251	Solar	3.88	1.9
AG1-290	Storage	20	4
AG1-335	Solar	4	2.7
AG1-489	Solar; Storage	175	145

Queue	Fuel	MW Energy	MW Capacity
AG1-490	Solar; Storage	125	105
AG1-501	Natural Gas	11.3	10
Z1-035	Offshore Wind	18	2.34



Generation Interconnection Projects - BGE

Queue	Fuel	MW Energy	MW Capacity
AB2-132	Wind; Storage	0	2.2
AC1-033	Wind	100.8	13.1
AC2-154	Solar	50	19
AC2-156	Solar	20	7.6
AD1-013	Solar	40	15.4
AD1-016	Solar	20	7.6
AD1-039	Natural Gas	102.7	112.7
AD1-067	Wind	5.725	1.1
AD1-098	Solar	100	57.8
AD1-100	Wind	850	150



Generation Interconnection Projects - ComEd

Queue	Fuel	MW Energy	MW Capacity
AD1-129	Solar	12.5	7.5
AD1-133	Solar	300	180
AD1-148	Wind	0	36.3
AD2-038	Wind	150	26.4
AD2-060	Solar	20	20
AD2-131	Storage	50	8.3
AD2-134	Wind	108.33	21.7
AD2-214	Solar	68	40.8
AE1-007	Solar	20	7.6
AE1-113	Wind	300	66
AE1-163	Wind	350	49

Queue	Fuel	MW Energy	MW Capacity
AE2-221	Solar	300	180
AE2-303	Solar	49.9	30
AF1-078	Solar	45	18.9
AF1-282	Solar	100	60
AF1-283	Solar	130	78
AF2-027	Storage	50	20
AF2-031	Storage	20	8
AF2-032	Solar	20	13.6
AF2-034	Solar; Storage	20	10.8
AF2-041	Solar	300	180
AF2-066	Solar	80	48



Generation Interconnection Projects - ComEd

Queue	Fuel	MW Energy	MW Capacity
AF2-067	Solar	40	24
AF2-069	Wind	9.3	2.2
AF2-079	Solar	165	99
AF2-084	Solar	42	28.1
AF2-095	Solar; Storage	200	136
AF2-128	Wind	79.5	13.992
AF2-142	Solar	150	90
AF2-143	Solar	150	90
AF2-183	Storage	80	32
AF2-199	Solar	100	60
AF2-200	Solar	200	120

Queue	Fuel	MW Energy	MW Capacity
AF2-212	Solar	150	90
AF2-225	Solar	150	63
AF2-226	Storage	50	20
AF2-252	Storage	50	20
AF2-263	Solar	98	58.8
AF2-305	Wind	0	9.2
AF2-317	Wind	0	15.68
AF2-319	Storage	50	20
AF2-329	Storage	42.2	42.2
AF2-346	Solar	75	45
AF2-349	Solar	300	180



Generation Interconnection Projects - ComEd

Queue	Fuel	MW Energy	MW Capacity
AF2-350	Solar	100	60
AF2-351	Storage	20	8
AF2-352	Storage	50	20
AF2-363	Solar	81.4	48.84
AF2-364	Solar	81.4	48.84
AF2-393	Storage	60	60
AF2-394	Storage	40	40
AG1-044	Storage	0.5	0
AG1-373	Storage	0	10
AG1-398	Wind	0	7.33
AG1-460	Storage	30	12

Queue	Fuel	MW Energy	MW Capacity
AG1-478	Solar; Storage	19.9	15.9
AG1-507	Natural Gas	296	296
AG1-512	Storage	40	16
AG1-513	Storage	10	4
AG1-535	Storage	85	85
Y3-013	Natural Gas	0	90



Generation Interconnection Projects - Dayton

Queue	Fuel	MW Energy	MW Capacity
AC1-189	Solar	80	53.4
AC2-012	Solar	150	57
AC2-141	Solar	240	168.2
AD1-087	Solar	64.2	43.7
AD1-115	Solar	50	19
AF2-033	Storage	20	8
AF2-160	Natural Gas	3.5	3.5
AF2-210	Solar	200	120
AF2-298	Solar	49.9	29.9
AF2-384	Solar; Storage	20	20
AG1-086	Solar; Storage	17.5	10.5

Queue	Fuel	MW Energy	MW Capacity
AG1-132	Natural Gas	20	20
AG1-207	Storage	85	85
AG1-231	Solar	20	12
AG1-291	Hydro	16.8	13.5
AG1-323	Solar; Storage	40	40
AG1-485	Storage	55	55



Generation Interconnection Projects - DEOK

Queue	Fuel	MW Energy	MW Capacity
AE1-044	Solar	200	111.79
AF1-014	Solar	19.9	7.2



Generation Interconnection Projects - DL

Queue	Fuel	MW Energy	MW Capacity
AF1-147	Solar	100	60
AF1-236	Solar	1210	459.8
AF2-013	Storage	100	100
AF2-035	Solar	80	48
AF2-037	Solar	94	56.4



Generation Interconnection Projects - Dominion

Queue	Fuel	MW Energy	MW Capacity
AB2-120	Solar	100	38
AB2-130	Solar	85	32.3
AB2-135	Solar	64	29.9
AB2-136	Solar	51.1	24.8
AB2-172	Solar	50	19
AB2-185	Solar	8	5.6
AC2-186	Solar	10	3.8
AC2-187	Solar	20	7.6
AC2-188	Solar	20	7.6
AE1-087	Storage	20	16
AE1-107	Solar	53.1	31

Queue	Fuel	MW Energy	MW Capacity
AF2-040	Storage	75	75
AF2-042	Solar	500	300
AF2-046	Solar	150	99.8
AF2-047	Solar	150	99.8
AF2-049	Solar	60	34.5
AF2-054	Solar	19.9	11.94
AF2-057	Storage	20	20
AF2-060	Storage	9	9
AF2-061	Storage	40	40
AF2-063	Solar	150	90
AF2-065	Solar	150	76.5



Generation Interconnection Projects - Dominion

Queue	Fuel	MW Energy	MW Capacity
AF2-076	Solar	50	30
AF2-077	Solar	20	12
AF2-080	Solar	70	48.5
AF2-081	Solar	80	56
AF2-091	Solar	34	14.3
AF2-108	Solar; Storage	10	10
AF2-110	Solar	20	7.72
AF2-115	Solar	25	15
AF2-119	Solar	80	48
AF2-120	Solar	62	37.2
AF2-136	Solar	0	0

Queue	Fuel	MW Energy	MW Capacity
AF2-144	Solar; Storage	17	10.2
AF2-171	Solar	150	90
AF2-193	Offshore Wind	440	119
AF2-194	Offshore Wind	440	119
AF2-196	Offshore Wind	30	9
AF2-207	Storage	50.4	20.16
AF2-222	Solar	167	100
AF2-242	Solar	80	45
AF2-259	Solar	25	15
AF2-266	Storage	50	50
AF2-297	Solar	80	48



Generation Interconnection Projects - Dominion

Queue	Fuel	MW Energy	MW Capacity
AF2-299	Solar	25	15
AF2-300	Solar	20	12
AF2-303	Solar; Storage	100	100
AF2-304	Solar; Storage	89	89
AF2-397	Solar; Storage	130	78
AF2-403	Storage	0	8
AF2-404	Storage	0	0
AG1-007	Solar	9.4	6
AG1-009	Storage	0	0
AG1-010	Storage	0	0
AG1-013	Storage	0	0

Queue	Fuel	MW Energy	MW Capacity
AG1-014	Storage	0	0
AG1-015	Storage	0	0
AG1-019	Storage	100	100
AG1-021	Solar	20	12
AG1-023	Solar	75	15
AG1-027	Solar	127.5	82.11
AG1-028	Storage	0	0
AG1-031	Solar	20	8.4
AG1-037	Solar	5	3
AG1-038	Solar	45	18.9
AG1-043	Solar	60	36



Generation Interconnection Projects - Dominion

Queue	Fuel	MW Energy	MW Capacity
AG1-057	Storage	20	20
AG1-064	Storage	19.1	8
AG1-065	Storage	19.1	8
AG1-084	Solar; Storage	17.5	10.5
AG1-085	Solar; Storage	17.5	10.5
AG1-102	Storage	19	6.16
AG1-131	Solar	25.6	15.36
AG1-133	Solar	128	76.8
AG1-134	Solar	100	60
AG1-135	Solar	60	36
AG1-137	Storage	100	40

Queue	Fuel	MW Energy	MW Capacity
AG1-143	Storage	200	80
AG1-145	Solar	20	12
AG1-146	Solar	30	18
AG1-147	Solar	70	42
AG1-151	Storage	100	100
AG1-152	Storage	100	40
AG1-153	Storage	75	30
AG1-154	Storage	50	20
AG1-159	Storage	0	0
AG1-160	Storage	75	30
AG1-166	Solar	20	12



Generation Interconnection Projects - Dominion

Queue	Fuel	MW Energy	MW Capacity
AG1-167	Solar	20	12
AG1-168	Solar	20	12
AG1-169	Solar	20	12
AG1-170	Solar	20	12
AG1-183	Solar	50	35.52
AG1-187	Storage	0	14.48
AG1-195	Solar; Storage	150	150
AG1-196	Solar; Storage	150	150
AG1-209	Storage	7	2.8
AG1-210	Storage	10	4
AG1-213	Storage	10	4

Queue	Fuel	MW Energy	MW Capacity
AG1-214	Storage	19	7.6
AG1-215	Storage	14	5.6
AG1-221	Storage	50	20
AG1-256	Storage	20	8
AG1-282	Solar	20	12
AG1-305	Solar	118	70.8
AG1-322	Solar; Storage	70	70
AG1-344	Solar	20	12
AG1-345	Solar	8	4.8
AG1-346	Solar	20	12
AG1-383	Solar	20	15.43



Generation Interconnection Projects - Dominion

Queue	Fuel	MW Energy	MW Capacity
AG1-388	Solar	20	12
AG1-393	Solar	20	12
AG1-394	Solar	20	12
AG1-412	Storage	200	80
AG1-421	Solar	200	120
AG1-422	Storage	50	50
AG1-466	Solar	14	8.4
AG1-467	Solar	15.6	9.36
AG1-469	Solar	15.6	9.36
AG1-518	Solar; Storage	50	50
AG1-519	Solar	20	12

Queue	Fuel	MW Energy	MW Capacity
AG1-532	Solar	13.5	8.1
AG1-534	Storage	200	200
AG1-537	Storage	75	32
AG1-538	Storage	75	32
AG1-541	Storage	75	32
AG1-545	Solar; Storage	20	14
AG1-551	Solar	20	13.1
AG1-558	Solar; Storage	20	13.3



Generation Interconnection Projects - DPL

Queue	Fuel	MW Energy	MW Capacity	Queue	Fuel	MW Energy	MW Capacity
AC1-074	Solar	80	56	AF2-249	Storage	3	0.6
AC2-075	Solar	20	13.3	AF2-260	Solar	85	53
AD2-048	Solar	70	46.7	AF2-306	Storage	26	26
AE1-020	Offshore Wind	816	229.3	AF2-308	Storage	28	28
AE1-144	Solar; Storage	120	80.2	AF2-309	Solar	70	42
AE2-024	Offshore Wind	882	155.23	AF2-313	Solar	19.9	12.7
AE2-025	Offshore Wind	445.2	78.36	AF2-325	Solar	10	4.2
AF2-090	Solar	110	73.6	AF2-358	Solar	100	60
AF2-138	Solar	19.8	8.32	AF2-365	Solar	50	30
AF2-208	Storage	100.8	40.32	AF2-378	Solar	2.65	1.11
AF2-248	Solar	7.2	3.4	AF2-385	Solar	75	47.8



Generation Interconnection Projects - DPL

Queue	Fuel	MW Energy	MW Capacity
AF2-387	Solar	100	66.6
AF2-409	Storage	100	100
AG1-067	Solar	38	24.8
AG1-070	Solar; Storage	45	32.7
AG1-071	Solar; Storage	55	37.5
AG1-072	Storage	50	50
AG1-079	Solar	1.5	0
AG1-149	Storage	3	3
AG1-318	Storage	1	0.3
AG1-352	Solar	50	30
AG1-360	Solar	8.75	0

Queue	Fuel	MW Energy	MW Capacity
AG1-397	Solar; Storage	9.972	4.1882
AG1-405	Solar	57	34.2
AG1-406	Storage	22	22
AG1-461	Solar	30	19.5
AG1-471	Solar	60	36



Generation Interconnection Projects - EKPC

Queue	Fuel	MW Energy	MW Capacity
AE1-138	Solar	22	13.2
AE2-211	Solar	55	23.1
AF2-030	Storage	20	8
AF2-102	Solar	3	1.8
AF2-139	Solar	8.8	3.7
AF2-175	Solar	3	1.8
AF2-213	Storage	81.2	32.48
AF2-383	Solar; Storage	20	20
AG1-052	Storage	20	20
AG1-191	Solar	15.4	6.5
AG1-223	Solar	15.4	6.47

Queue	Fuel	MW Energy	MW Capacity
AG1-348	Solar	19.8	8.316
AG1-487	Solar; Storage	20	20
AG1-495	Solar	19.8	8.316
AG1-510	Solar; Storage	20	12
AG1-511	Solar; Storage	50	30
AG1-563	Solar	0	0.7



Generation Interconnection Projects - JCPL

Queue	Fuel	MW Energy	MW Capacity
AA1-111	Natural Gas	463	463
AB1-092	Natural Gas	41	17
AD1-097	Natural Gas	67	34.8
AD2-055	Natural Gas	44	35
AD2-133	Wind	100.33	18
AF2-038	Storage	20	8
AF2-055	Storage; Solar	50	30
AF2-124	Solar	120	50.4
AG1-053	Storage	20	20
AG1-158	Solar	16	0
AG1-419	Solar	50	21

Queue	Fuel	MW Energy	MW Capacity
AG1-465	Storage	100	40
AG1-484	Solar; Storage	20	20
AG1-486	Storage	15	15



Generation Interconnection Projects - ME

Queue	Fuel	MW Energy	MW Capacity
AE1-071	Solar	100.1	62.1
AF1-304	Solar; Storage	100	60
AF2-001	Solar	20	12
AF2-002	Solar	10	6
AF2-010	Solar	77	46
AF2-039	Solar	13.5	8.1
AF2-050	Solar	50	30
AF2-051	Solar	50	33
AF2-088	Solar	6.5	3.9
AF2-092	Solar	12	7.2
AF2-121	Solar	20	12

Queue	Fuel	MW Energy	MW Capacity
AF2-130	Solar	20	12
AF2-141	Storage	0	8
AF2-146	Solar	20	12
AF2-148	Solar	13.5	8.1



Generation Interconnection Projects - ODEC

Queue	Fuel	MW Energy	MW Capacity
AF2-164	Solar	80	48



Generation Interconnection Projects - OVEC

Queue	Fuel	MW Energy	MW Capacity
AF2-165	Solar	20	12



Generation Interconnection Projects - PECO

Queue	Fuel	MW Energy	MW Capacity
AF2-166	Solar	20	12
AF2-229	Solar	20	10.9
AF2-235	Solar	10	6
AF2-238	Solar	20	12



Generation Interconnection Projects - PENELEC

Queue	Fuel	MW Energy	MW Capacity
AF2-006	Solar	20	12
AF2-056	Solar	50	33
AF2-082	Solar	55	33
AF2-086	Solar	19.6	11.8
AF2-140	Natural Gas	0	30
AF2-152	Oil	2	2
AF2-153	Oil	2	2
AF2-154	Natural Gas	5	5
AF2-155	Natural Gas	13	13
AF2-156	Natural Gas	2	2
AF2-157	Natural Gas	0	1

Queue	Fuel	MW Energy	MW Capacity
AF2-158	Natural Gas	4	4
AF2-159	Natural Gas	2	2
AF2-203	Solar	20	12
AF2-227	Solar	63.75	38.25
AF2-228	Solar	61	36.6
AF2-232	Solar; Storage	40	24
AF2-233	Solar; Storage	20	12
AF2-234	Solar; Storage	40	24
AF2-239	Solar	20	11.1
AF2-240	Solar	7	3.78
AF2-241	Solar	20	11.3



Generation Interconnection Projects - PENELEC

Queue	Fuel	MW Energy	MW Capacity
AF2-243	Solar	15	9
AF2-251	Nuclear	50	0
AF2-294	Solar	20	12
AF2-296	Solar	20	12
AF2-315	Nuclear	50	0
AF2-318	Solar	20	12
AF2-331	Solar	50	30
AF2-332	Solar	50	30
AF2-333	Solar	20	12
AF2-336	Solar	20	12
AF2-337	Solar	20	12

Queue	Fuel	MW Energy	MW Capacity
AF2-338	Solar	20	12
AF2-339	Solar	20	12
AF2-405	Storage	10	10
AF2-436	Natural Gas	1.5	1.5
AF2-439	Solar	50	26
AG1-033	Solar	5	3.2
AG1-040	Solar	20	12
AG1-041	Solar	12	7.2
AG1-077	0	0	0
AG1-094	Natural Gas	35.3	0
AG1-100	Solar	20	12



Generation Interconnection Projects - PENELEC

Queue	Fuel	MW Energy	MW Capacity	Queue	Fuel	MW Energy	MW Capacity
AG1-113	Storage	0	3.6	AG1-253	Solar	4	2.7
AG1-114	Storage	0	10	AG1-280	Solar	20	12
AG1-138	Solar	5	4.75	AG1-281	Solar	20	12
AG1-139	Solar	5	4.75	AG1-296	Solar	10	6.5
AG1-140	Solar	2.62	1.7	AG1-303	Solar	44	26.4
AG1-193	Solar	20	12	AG1-308	Solar	19.9	8.3
AG1-197	Solar	15	9	AG1-317	Storage	1	0.3
AG1-198	Solar	12	7.2	AG1-338	Solar	5	4.4
AG1-202	Solar	10	6.6	AG1-377	Solar	20	12
AG1-203	Solar	10	6.5	AG1-378	Solar	20	12
AG1-205	Solar	10	6.5	AG1-382	Solar	20	12



Generation Interconnection Projects - PENELEC

Queue	Fuel	MW Energy	MW Capacity
AG1-481	Solar; Storage	15.53	15.53
AG1-483	Solar; Storage	542.5	542.5
AG1-520	Solar; Storage	4	0



Generation Interconnection Projects - PEPCO

Queue	Fuel	MW Energy	MW Capacity
AF2-334	Solar	20	12
AF2-361	Solar	85	35
AF2-417	Solar	20	12
AF2-418	Solar	20	12
AF2-421	Solar	20	12
AF2-424	Solar	20	12
AF2-425	Solar	20	12
AF2-433	Solar	20	12
AF2-434	Solar	20	12
AF2-438	Solar	20	12
AF2-444	Solar	19.8	11.8

Queue	Fuel	MW Energy	MW Capacity
AF2-445A	Solar	19.8	11.8



Generation Interconnection Projects - PPL

Queue	Fuel	MW Energy	MW Capacity
AF2-168	Natural Gas; Solar; Other	5	0
AF2-247	Solar	5	2.1
AF2-414	Storage	300	300
AF2-415	Storage	150	150
AF2-416	Storage	10	10
AG1-050	Storage	20	20
AG1-060	Wind	174.8	25.7
AG1-080	Solar	19.9	10.7
AG1-115	Storage	0	100
AG1-130	Storage	5	2
AG1-148	Natural Gas	5	0

Queue	Fuel	MW Energy	MW Capacity
AG1-156	Solar	60	39.5
AG1-157	Solar	7.37	0
AG1-164	Solar	20	12
AG1-165	Solar	20	12
AG1-190	Solar	13.2	5.5
AG1-200	Solar	3.984	1.7
AG1-227	Solar	20	12
AG1-228	Solar	20	12
AG1-259	Solar	19.9	8.3
AG1-260	Solar	19.9	8.3
AG1-263	Storage	20	8



Generation Interconnection Projects - PPL

Queue	Fuel	MW Energy	MW Capacity
AG1-267	Storage	20	8
AG1-268	Storage	80	40.8
AG1-277	Solar; Storage	40	32
AG1-278	Solar; Storage	20	15.42
AG1-279	Solar; Storage	20	15.42
AG1-283	Solar	30	18
AG1-330	Solar; Battery	5	4.5
AG1-336	Solar; Storage	5	3.8
AG1-337	Solar; Storage	5	3.7
AG1-362	Solar	5	3.2
AG1-498	Solar	8.8	3.7

Queue	Fuel	MW Energy	MW Capacity
AG1-504	Solar	68	41.1
AG2-135	Storage	0.28	0

Network Upgrades

NUN	Description	Cost (\$M)	Driver
n5474	AC1-173 Fiber system modifications at Haviland and East Lima	\$ 0.01	AC1-173
n5648	Relay Settings - convert 2-terminal gen lead to 3-terminal gen lead at AC1-173 substation	\$ 0.06	AC1-173
n5793	Provide station service to Guernsey 765 kV station from Derwent-S Cumberland 69 kV	\$ 0.60	AB2-067
n5817	Install Dequine 345 kV circuit breaker D	\$ 1.17	MISO
n5969	Install 138 kV Revenue Metering at Jay substation	\$ 0.25	AC2-177

NUN	Description	Cost (\$M)	Driver
n5948	Install and upgrade relays/controls and install fiber interface for new AC1-097 fiber or optical ground wire (“OPGW”) at the Hatfield Substation	\$ 0.34	AC1-097
n5949	Hatfield Substation – Fiber Work inside the Substation – For Optical Ground Wire (“OPGW”) construction, install fiber cable runs to represent All-Dielectric Self-Supporting (“ADSS”) cable extension from substation control house to the telecommunication line structure	\$ 0.05	AC1-097
n6107	Keystone Substation: Revise relay settings on South Bend Terminal.	\$ 0.03	AD2-114
n6108	Yukon Substation: Revise relay settings on South Bend Terminal.	\$ 0.03	AD2-114

NUN	Description	Cost (\$M)	Driver
n4340.1	Bruce Mansfield breaker GenOwned(B72): Replace with an 80kA circuit breaker	\$ 1.96	AA1-123
n5533	Replace B13250 line trap, line tuner, coax, line relays, and carrier set at Richland Substation	\$ 0.34	V2-006
N6699	Construct new 345 kV AC2-103 Interconnection Switchyard including SCADA, metering and Project Management	\$ 9.66	AC2-103
N6700	Loop the Beaver-Davis Besse 345 kV circuit approximately 400 feet into the proposed AC2-103 3-breaker ring bus near structure numbers 41800 & 41801	\$ 1.52	AC2-103
N6701	Beaver Substation – Install standard dual SEL421 panel with UPLC for pilot scheme and DCB, DTT and anti-islanding for the AC2-103 line.	\$ 0.29	AC2-103
N6702	Davis Besse Substation - Install standard dual SEL421 panel with UPLC for pilot scheme and DCB, DTT and anti-islanding for the AC2-103 line.	\$ 0.37	AC2-103
N6703	AC2-103 ADSS fiber: From the new AC2-103 ring bus interconnection substation to the fiber backbone approximately 1 mile away to support SCADA transport. The assumed route is approximately 1 mile in length.	\$ 0.19	AC2-103



New Network Upgrades – ComEd

NUN	Description	Cost (\$M)	Driver
n1830	Oversight of building the Interconnection Substation Kensington Ave TSS 199	\$ 0.55	S36
n1831	Kensington Ave TSS199 - Install 138kV transmission line tie in	\$ 0.11	S36
n1832.1	Relay and SCADA modifications at Davis Creek TSS 86	\$ 0.36	S36
n1832.2	Relay and SCADA modifications at Bradley TSS 70	\$ 0.60	S36
n1832.3	Relay and SCADA modifications at Kankakee TSS 157	\$ 0.14	S36
n1835	Relay modifications at TSS 199 Kensington Ave substation	\$ 0.29	S37
n6025	Expansion of TSS 900 Elwood to accommodate AC1-204 attachment	\$ 35.76	AC1-204



New Network Upgrades – ComEd

NUN	Description	Cost (\$M)	Driver
n6306	Install line terminal and metering at TSS92 McLean	\$ 0.50	AB2-047
n6307	Install breaker for L91305 at TSS92 McLean	\$ 2.00	AB2-047
n6391	Option to build oversight at TSS 939 Mulberry and TSS924 Three Rivers	\$ 4.24	AB1-122
n6392	Install Fiber Optics Cable 13.1 miles TSS 939 Mulberry to Sta 23 Collins	\$ 2.00	AB1-122
n6393	Modify 93913 Relaying at TSS 908 Mole Creek	\$ 0.22	AB1-122
n6394	Modify 1202 Line Relaying Sta 12 Dresden	\$ 0.21	AB1-122
n6395	Modify 1227 Line Relaying Sta 12 Dresden	\$ 0.21	AB1-122



New Network Upgrades – ComEd

NUN	Description	Cost (\$M)	Driver
n6396	Modify 93915 Relaying at Tazewell	\$ 0.09	AB1-122
n6397	Modify 1202 Tie In at TSS 939 Mulberry	\$ 0.68	AB1-122
n6398	Modify 1227 Tie in at TSS 939 Mulberry	\$ 0.68	AB1-122
n6399	Modify 93913 Tie In at TSS 939 Mulberry	\$ 0.68	AB1-122
n6400	Modify 93915 Tie In at TSS 939 Mulberry	\$ 0.68	AB1-122

NUN	Description	Cost (\$M)	Driver
n3243	Transmission loop through new 345kV Meldahl Interconnection substation	\$ 1.03	V3-045
n3244	Relay modification at Zimmer substation	\$ 0.02	V3-045
n3245	Relay modification at Spurlock substation	\$ 0.02	V3-045
n5781	Provide engineering and construction oversight for the construction of the new AD1-136 substation	\$ 5.28	AD1-136
n5782	Reconfigure the South Bethel to Brown 69 kV circuit to loop through the new substation and rework the distribution under-build on that circuit path to allow for the new substation	\$ 0.65	AD1-136
n6240	Remote Protection and Communication Work at South Bethel and Brown Substations	\$ 1.12	AD1-136



New Network Upgrades – Dominion

NUN	Description	Cost (\$M)	Driver
n5202	Build a three breaker ring bus at Wards Creek substation	\$ 5.99	AB2-190
n5204	Upgrade relay to accommodate new generation and interconnection substation at Hopewell - Surry line #240	\$ 0.06	AB2-190
n5475	Modify transfer trip equipment at Carolina, Clubhouse, and Emporia substations	\$ 0.15	AB1-173
n5803	Build a new three breaker ring bus at the new AB2-100 substation	\$ 6.03	AB2-100
n5804	Install new backbone tower on Clubhouse - Lakeview line #254	\$ 1.29	AB2-100
n5805	Upgrade protection for Clubhouse-Lakeview line #254 to accommodate AB2-100 generator and switching station	\$ 0.19	AB2-100
n5826	Install a fourth breaker in ring bus at Colonial Trail	\$ 2.50	AC1-216
n6063	Replace wave trap at both Ladysmith and Possum Point Substations for the Ladysmith – Possum Pt 500kV line #568. This will increase line rating by 12% to 2913 MVA. Estimated to take 14-16 months to engineer and construct.	\$ 0.50	AC1-158

NUN	Description	Cost (\$M)	Driver
N6974	Construct a new 7th breaker position onto the 138 kV, 6 breaker position ring bus at Townsend Substation. Install metering control cable and meter cabinets, secondary wiring connections at the metering enclosure, primary and backup solid state multi-function meters for the new metering position, protective relays and perform relay setting changes as required.	\$ 1.94	AB2-179

NUN	Description	Cost (\$M)	Driver
n6276	Install OPGW fiber from on the Harrison County – Renaker line section, which is approximately 9.35 miles in length.	\$ 1.27	AC1-074

Facilitator:
Sue Glatz,
Suzanne.Glatz@pjm.com

Secretary:
Michael Zhang,
Michael.Zhang@pjm.com

SME/Presenter:
Awais Ghayas,
Awais.Ghayas@pjm.com

Network Service Queue Update



Member Hotline

(610) 666 – 8980

(866) 400 – 8980

custsvc@pjm.com

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