

Building a

B R I G H T E R F U T U R E

PJM LAS Large Load Adjustment Presentation

Yvonne Hartman
Consulting Engineer
FirstEnergy

September 16, 2025^A

FirstEnergy[®]

Large Load Adjustment Process



Economic Development works through leads on potential new customer growth opportunities in service territory



Customer Accounts team works with customers to plan for new or changing future load expectations



Planning & Protection begins detailed load study process with signed agreements. Customer provides preliminary forecast



Planning & Protection group vets potential load impacts. Determines if economics or other variables may be picking up the change



Load impacts materialize as customer growth comes online or customer plans change from initial expectation



Monitor impacts on actuals and determines if future forecast adjustments are still needed



FirstEnergy Adjustment Pipeline

■ Customer interconnection requests are an independent addition to the forecast

- These become PJM Large Load Adjustments
- Introduced a scoring system to reduce subjectivity of including in the forecast
 - Based on a series of questions describing where in process project is
 - Score greater than or equal to 5 is included in PJM LLA submittal

■ Forecast Score Criteria questions

Is Customer still considering non-FE locations for this project? Are we in competition with other utilities?
Does Customer own or control the land?
Does Customer have ALL necessary building permits? This includes environmental permits.
Does Customer have a development plan? This is a detailed, professional, realistic site plan.
Does Customer have tenants or raw materials secured?
Has the Customer publicly announced their project?
Has the Customer begun construction? Includes site clearing and grading.
Does the Customer have headwinds that would stop construction?
Has the Customer signed an interconnection, construction, or line extension agreement with FE?
Has the customer signed an Electric Service Agreement (ESA)?
Is the DLS finished?
Is the CLS finished?

PJM Submittal

- Requires submission of Capacity/Demand & Supporting Criteria
- Cutoff for 2025 submittal is 50 MW or greater
- Load factors used for Demand

Load Type	Load Factor
Commercial Offices	0.4
Data Center	0.9
EV	0.75
Industrial	0.75
Medical Center	0.55
Other	0.75
Refridgerated Storage	0.7
Stadium	0.4
Wastewater Treatment	0.6

- Currently only using datacenters, industrial, and stadium
- **Total FE Growth through 2035 is ~15 GW (Capacity)**
 - Areas of largest growth are ATSI & APS (~7 GW & ~6.4 GW Capacity through 2035)

Summary Tables for FE Zones

Total Summer Peak of Facility(ies) (Cumulative MW) - Capacity																					
Zone	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
AE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APS	1256	1500	1710	2416	3212	4274	5492	5600	6268	6368	6368	6368	6368	6368	6368	7016	7016	7016	7016	7016	7016
ATSI	403	703	1242	1891	4732	5583	6452	6837	6837	6962	6962	6962	6962	6962	6962	6962	6962	6962	6962	6962	6962
BGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ComEd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLCo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EKPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JCPL	0	0	0	163	555	645	645	645	645	645	645	645	645	645	645	645	645	645	645	645	645
METED	0	0	0	250	500	750	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000	1000
OVEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEPCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PSEG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UGI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Total Summer Peak of Facility(ies) (Cumulative MW) - Demand																					
Zone	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
AE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
AEP	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APS	1109	1310	1493	2128	2844	3801	4897	4994	5595	5685	5685	5685	5685	5685	5685	6269	6269	6269	6269	6269	6269
ATSI	353	623	1104	1658	4156	4922	5704	6050	6050	6163	6163	6163	6163	6163	6163	6163	6163	6163	6163	6163	6163
BGE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ComEd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DAY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DEOK	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DLCo	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DOM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
EKPC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
JCPL	0	0	0	147	500	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581	581
METED	0	0	0	225	450	675	900	900	900	900	900	900	900	900	900	900	900	900	900	900	900
OVEC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PENLC	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEPCO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PPL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PSEG	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
RECO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
UGI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

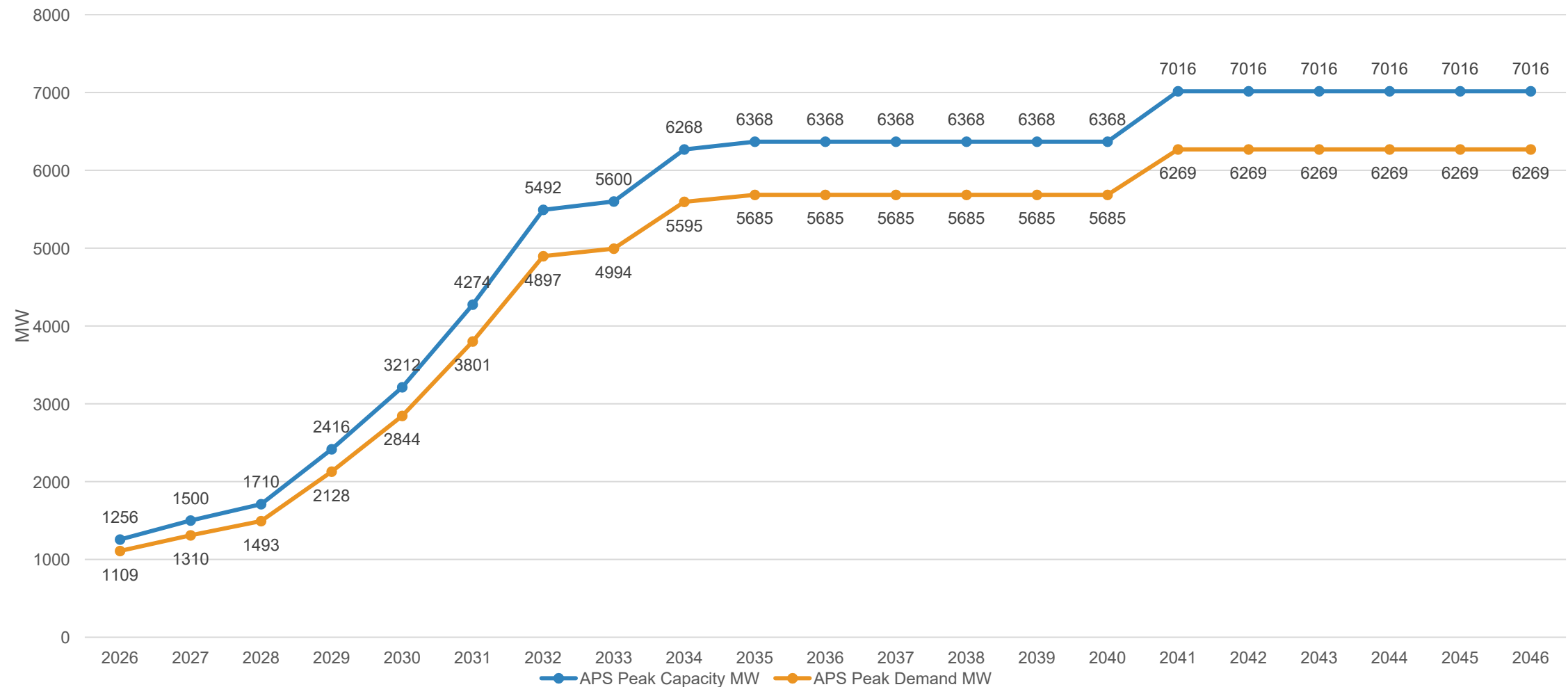
APS Project Forecast Scores

- 16 projects are included for this year's submittal for APS Zone

APS	State	Customer #	MW	RTEP Number(s)	Score	Signed ESA	Under Construction
	MD	7	360	s3153.1	22	☐	☒
	MD	8	1000		5	☐	☐
	MD	9	600	sNNNN	22	☐	☒
	MD	10	576	s2881, s3151., s3152.1	22	☐	☒
	MD	11	300	s3150.1s3150.2	22	☐	☒
	MD	18	1000		10	☐	☐
	MD	33	864		7	☐	☐
	PA	17	350		12	☐	☐
	PA	21	100	s3125.1	21	☐	☒
	PA	34	330		5	☐	☐
	PA	36	80		5	☐	☐
	PA	41	70		5	☐	☐
	PA	42	60		8	☐	☐
	PA	44	250		5	☐	☐
	WV	20	64	s3103.1s3474.1	27	☒	☒
	WV	24	1012		7	☐	☐

Customer 9: Partial load is under construction

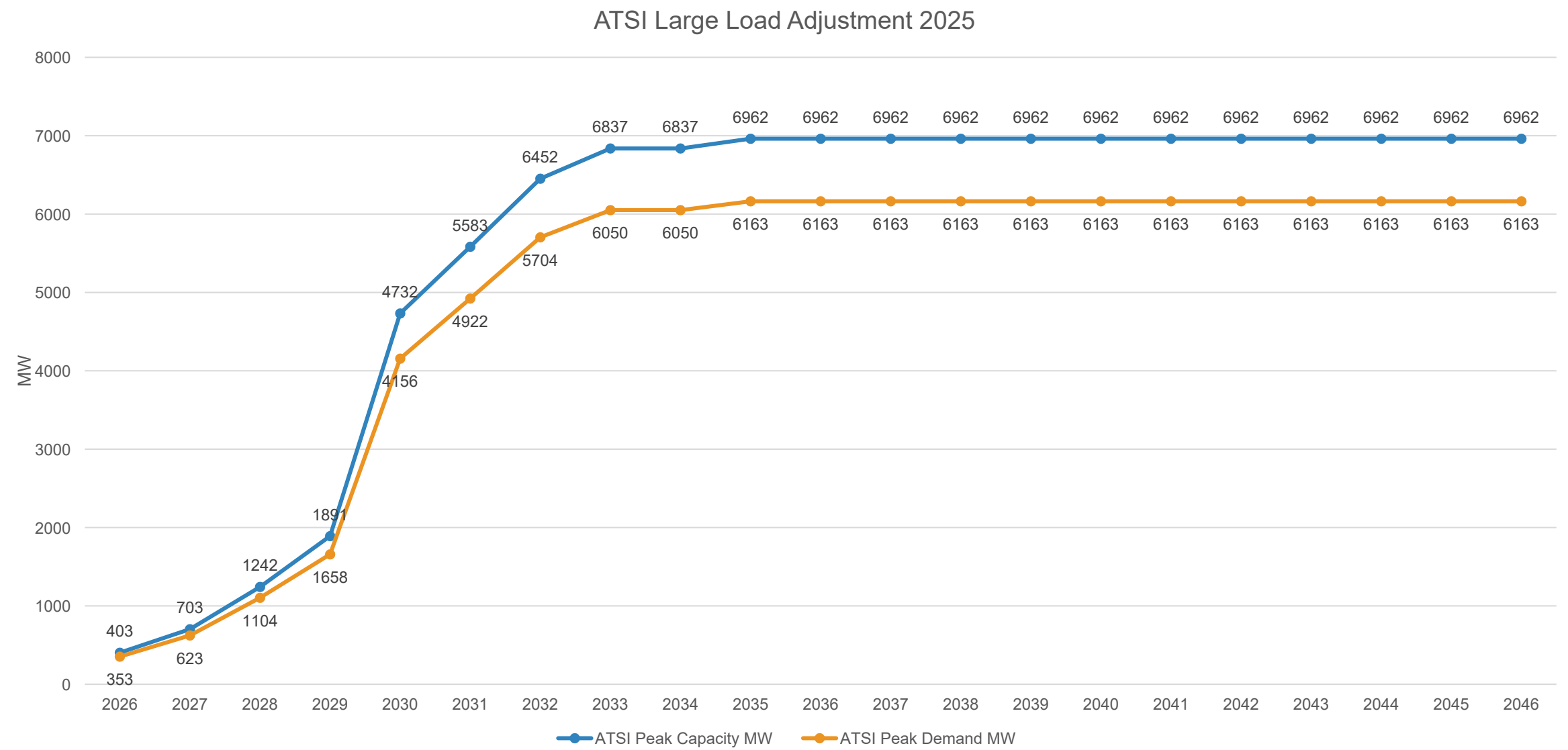
APS Large Load Adjustment 2025



ATSI Project Forecast Scores

- 19 projects are included for this year's submittal for ATSI Zone

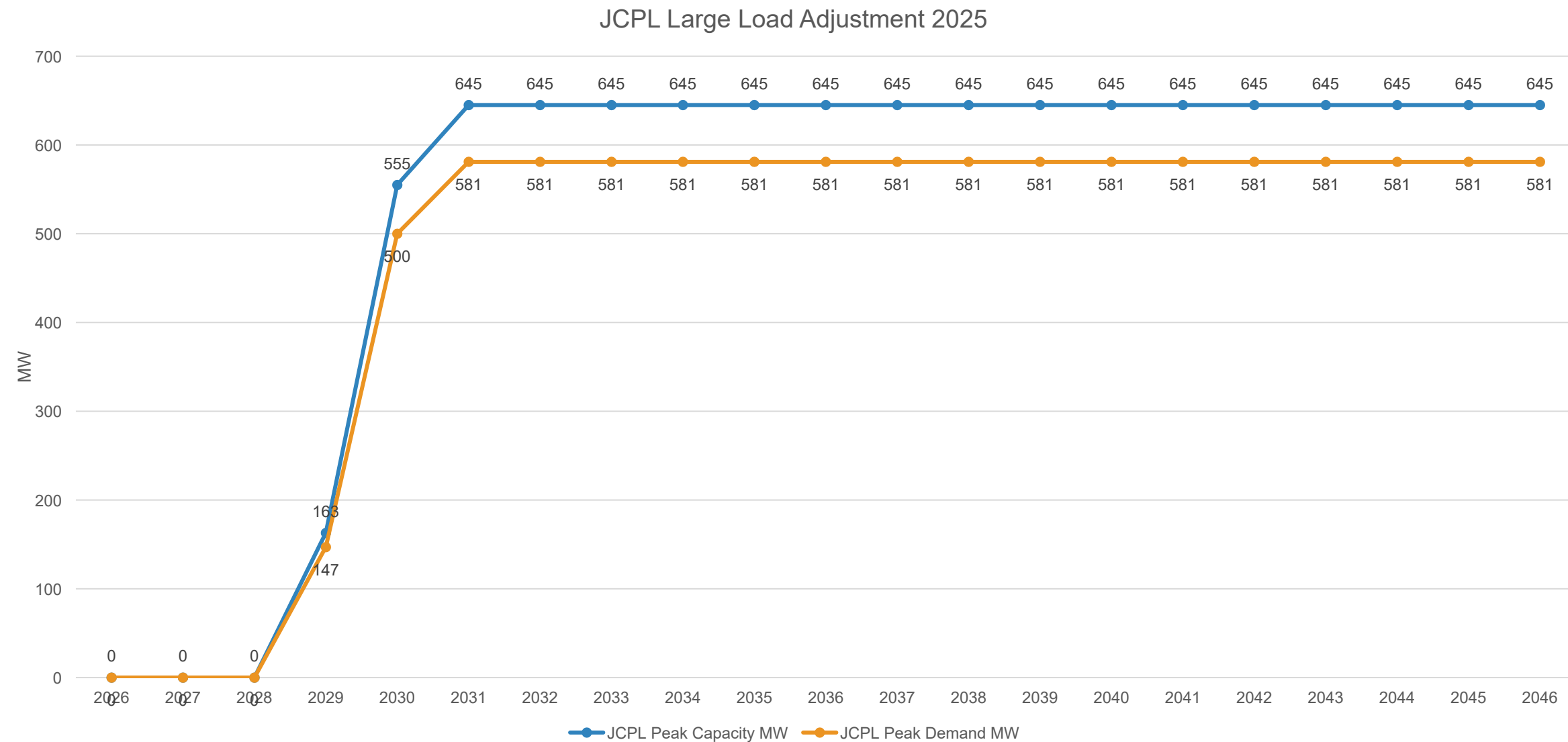
ATSI	State	Customer #	MW	RTEP Number(s)	Score	Signed ESA	Under Construction
	OH	1	200	s3524.1, s3524.2	26	☒	☒
	OH	2	540	s3660.1, 2, 3	21	☐	☒
	OH	3	220	s3361.1	27	☒	☒
	OH	4	780		12	☐	☐
	OH	5	310	sNNNN	5	☐	☐
	OH	6	200	s3106.1	21	☐	☒
	OH	19	60		10	☐	☐
	OH	22	300		9	☐	☐
	OH	23	650		9	☐	☐
	OH	26	720		10	☐	☐
	OH	27	270		6	☐	☐
	OH	28	100		13	☐	☐
	OH	29	120		9	☐	☐
	OH	30	300	sNNNN	22	☐	☒
	OH	35	149		10	☐	☐
	OH	38	1000		5	☐	☐
	OH	43	900		5	☐	☐
	OH	45	63	s3525.1	22	☐	☒
	PA	25	80	sNNNN	13	☐	☒



JCPL Project Forecast Scores

- 5 projects are included for this year's submittal for JCPL Zone

JCPL	State	Customer #	MW	RTEP Number(s)	Score	Signed ESA	Under Construction
	NJ	12	63		14	☐	☒
	NJ	14	70		7	☐	☐
	NJ	15	120		8	☐	☐
	NJ	16	249		9	☐	☐
	NJ	32	143		8	☐	☐

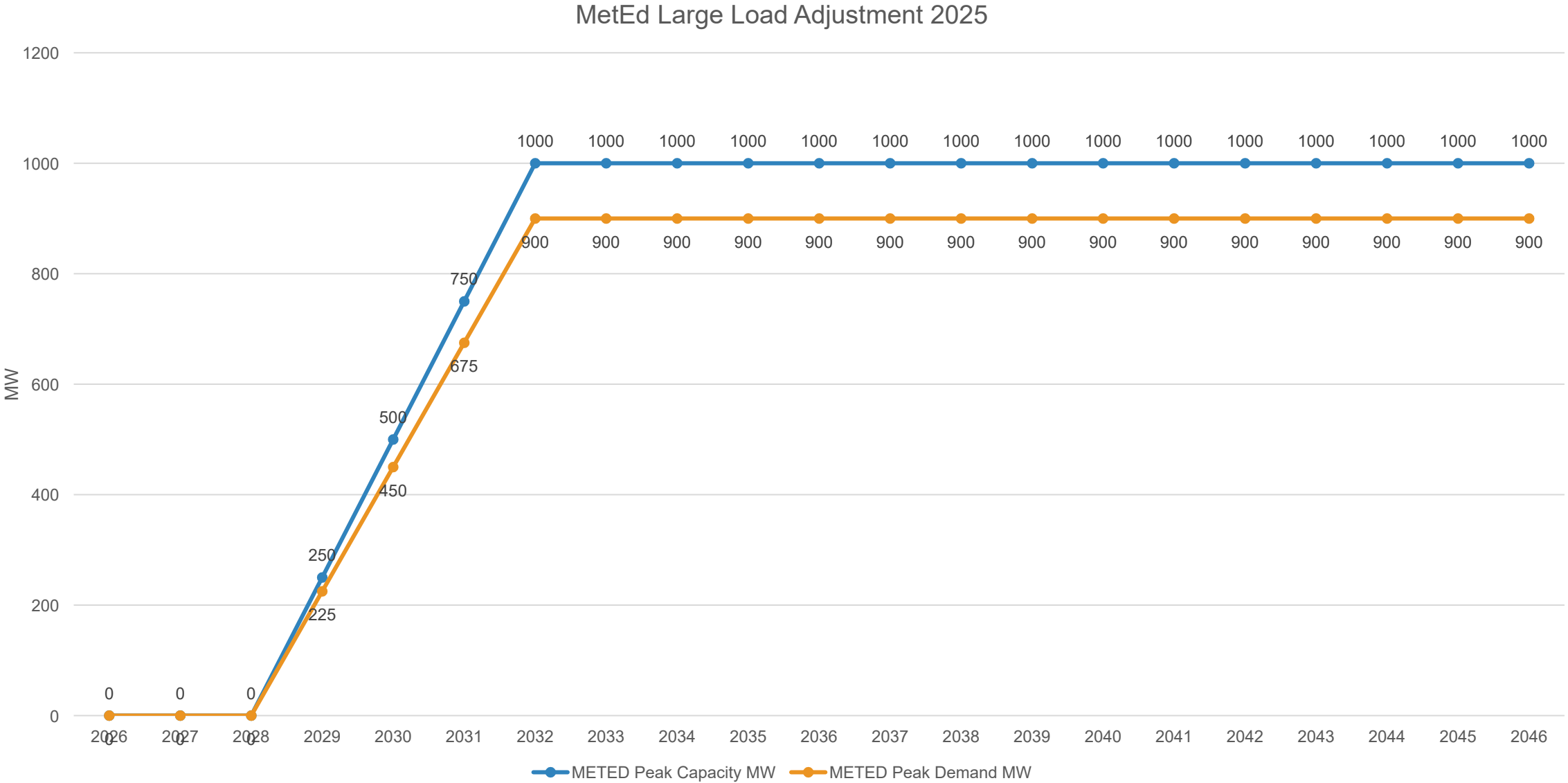


METED Project Forecast Scores

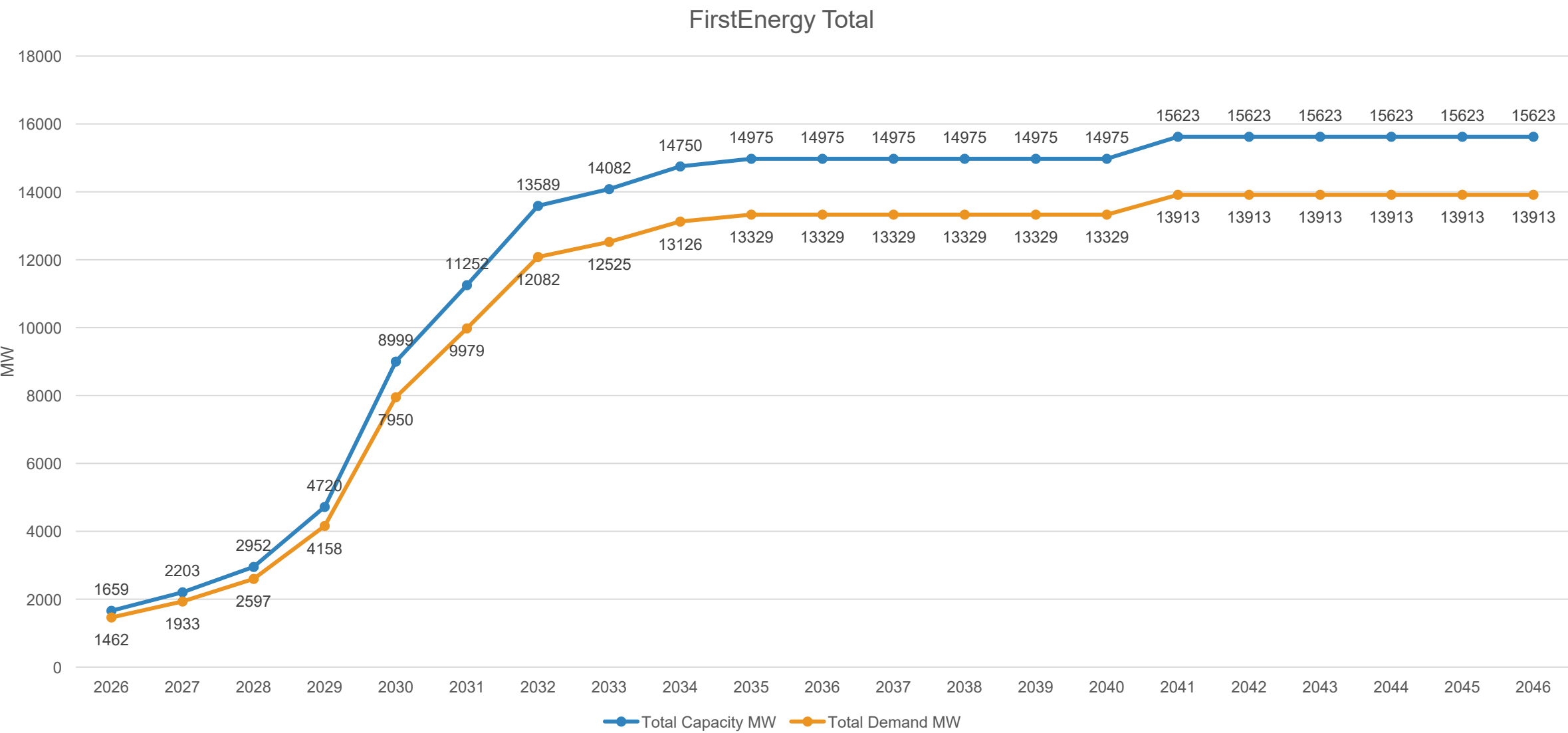
- 1 project is included for this year’s submittal for METED Zone

METED	State	Customer #	MW	RTEP Number(s)	Score	Signed ESA	Under Construction
	PA	31	1000		5	☐	☐

METED Zone



FirstEnergy Total



Questions?

