



***Net-Metering &
Interconnection Report
2015-17***

Bureau of Technical Utility Services

Policy & Planning Section

I. Background

The Alternative Energy Portfolio Standards (AEPS) Act of 2004 (Act) requires electric distribution companies (EDCs) and electric generation suppliers (EGSs) to supply 18 percent of electricity using alternative energy resources by 2021.¹ The percentage of Tier I, Tier II and solar alternative energy credits that must be included in sales to retail customers gradually increases over this period. To facilitate achieving this standard, the AEPS also required the PUC to develop technical and net metering interconnection rules for customer-generators.² The regulations subsequently established by the PUC require EDCs and EGSs to submit annual reports to the Commission.³

This report contains the number of customer-generators interconnected to the EDCs' distribution systems as well as the status of interconnection requests processed by the EDCs within the past year; it summarizes and provides access to the data submitted by each EDC for the previous three years. All reported data is by energy year, which runs from June 1 through May 31. Table 1 summarizes the cumulative number of interconnected customers to date, arranged by AEPS resource Tier. Section IV reflects the number of customer-generators in each EDC service territory. Section V shows the estimated generation capacity interconnected, by AEPS resource Tier, by year and by EDC. Section VI illustrates the number of annual interconnection requests received by year, by level of interconnection and by EDC. Section VII shows the number of approved interconnection requests by year, by level of interconnection and by EDC.

II. Interconnection Levels

EDCs are required to review interconnection requests using one or more of the following four review procedures.⁴

Level 1 is used for inverter-based small generator facilities with a nameplate capacity of 10 kilowatts (kW) or less and the customer's interconnection equipment is certified.⁵

Level 2 is used for small generation facilities with a nameplate capacity of 5 megawatts (MW) or less when the following conditions exist:

- The small generator facility uses an inverter for interconnection and the interconnection equipment is certified.
- The proposed interconnection is to a radial distribution circuit, or a spot network limited to serving one customer.

¹ See generally 73 P.S. § 1648.1 *et seq.* and also [52 Pa Code §75](#)

² See [52 Pa Code §75.1](#)

³ See [52 Pa Code §75.13\(g\)](#)

⁴ See [52 Pa. Code § 75.34](#)

⁵ See [52 Pa Code §75.22](#)

- The small generator facility was reviewed under Level 1 review procedures but was not approved for interconnection at that level.

Level 3 is used for evaluating interconnection requests to connect small generation facilities with an electric nameplate capacity of 5 MW or less which do not qualify under Level 1 or Level 2 or that were reviewed under Level 1 or Level 2, but were not approved for interconnection at those levels.

Level 4 is used for interconnection customers that do not qualify for Level 1 or Level 2 and do not export power beyond the point of common coupling. Customers may request to be evaluated under Level 4 review procedures, which provide for a potentially expedited review.

III. Summary of Customers Interconnected: 2015-17

TABLE 1: SUMMARY OF CUSTOMERS INTERCONNECTED 2015-17

	Data as of May 31, 2015				Data as of May 31, 2016				Data as of May 31, 2017			
	Tier I		Tier II	Total	Tier I		Tier II	Total	Tier I		Tier II	Total
	Total	Solar PV			Total	Solar PV			Total	Solar PV		
Number of Customer Generators	9,245	8,960	13	9,258	10,632	10,371	16	10,648	16,114	15,849	16	16,130
Estimated Generation Nameplate Capacity in kW	212,822	181,362	5,449	218,271	230,244	199,641	7,144	237,388	285,266	249,632	7,144	292,410

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I.

Number of Customer-Generators by EDC Service Territory: 2015-17

TABLE 2A: NUMBER OF CUSTOMER-GENERATORS BY EDC SERVICE TERRITORY 2017

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Tier I	690	29	1,045	89	2,269	551	92	6,049	5	5,286	9	16,114
Solar PV	650	29	1,026	83	2,266	527	82	6,038	5	5,140	3	15,849
Tier II	0	0	0	0	2	4	0	10	0	0	0	16
Total	690	29	1,045	89	2,271	555	92	6,059	5	5,286	9	16,130

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I.

TABLE 2B: NUMBER OF CUSTOMER-GENERATORS BY EDC SERVICE TERRITORY 2016

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Tier I	600	26	370	85	1,681	466	82	3,383	5	3,925	9	10,632
Solar PV	560	26	355	79	1,678	442	72	3,372	5	3,779	3	10,371
Tier II	0	0	0	0	2	4	0	10	0	0	0	16
Total	600	26	370	85	1,683	470	82	3,393	5	3,925	9	10,648

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I.

TABLE 2C: NUMBER OF CUSTOMER-GENERATORS BY EDC SERVICE TERRITORY 2015

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Tier I	518	24	299	85	1,595	416	69	2,677	4	3,549	9	9,245
Solar PV	479	24	281	79	1,569	392	60	2,665	4	3,404	3	8,960
Tier II	0	0	0	0	2	3	0	8	0	0	0	13
Total	518	24	299	85	1,597	419	69	2,685	4	3,549	9	9,258

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I

Figure 1a: Number of Customer-Generators by EDC Service Territory: 2017

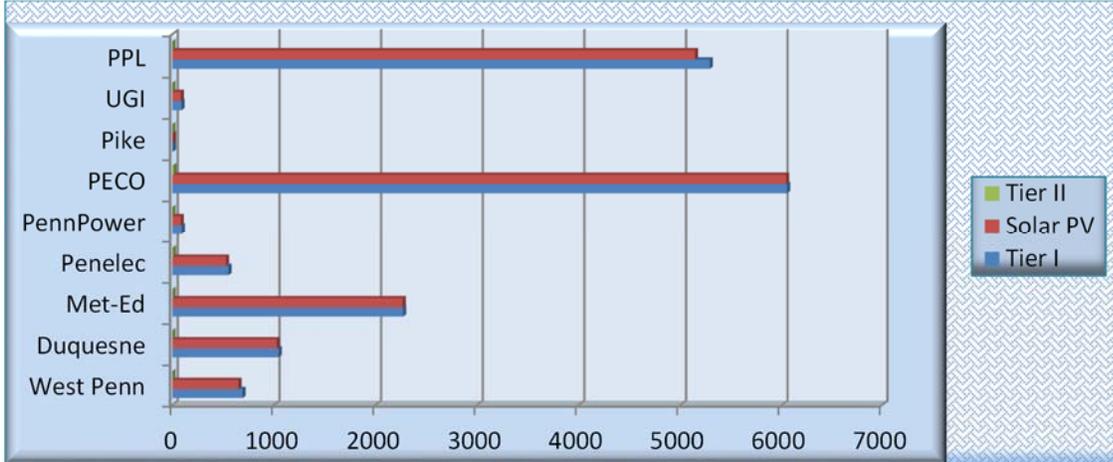


Figure 1b: Number of Customer-Generators by EDC Service Territory: 2016

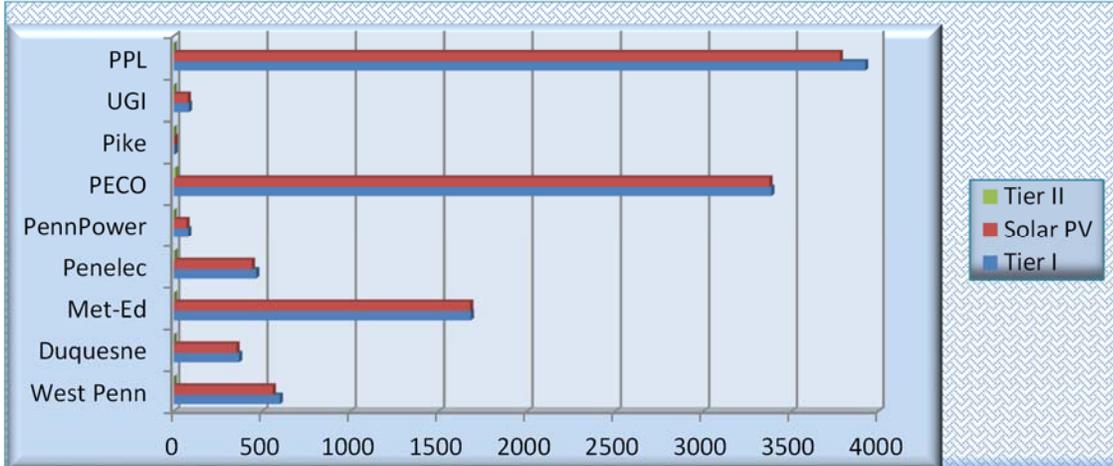


Figure 1c: Number of Customer-Generators by EDC Service Territory: 2015

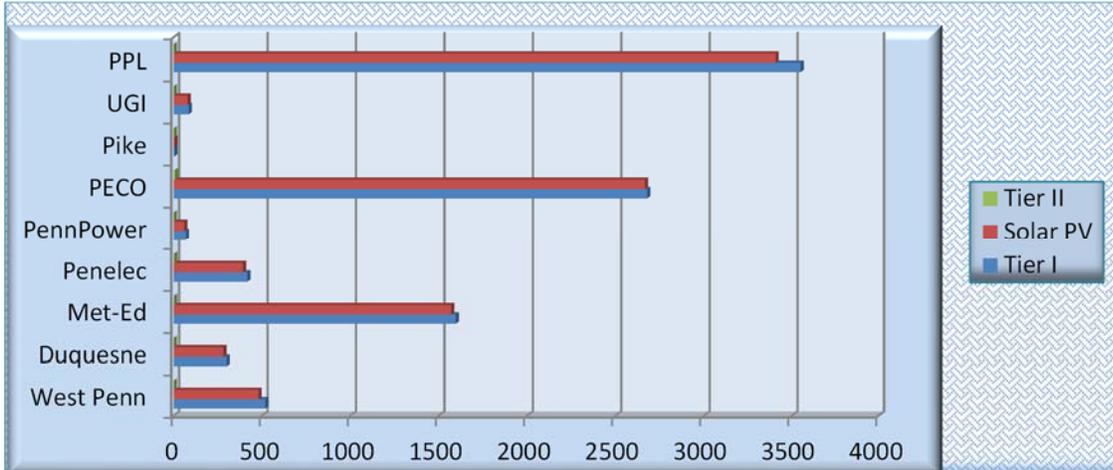
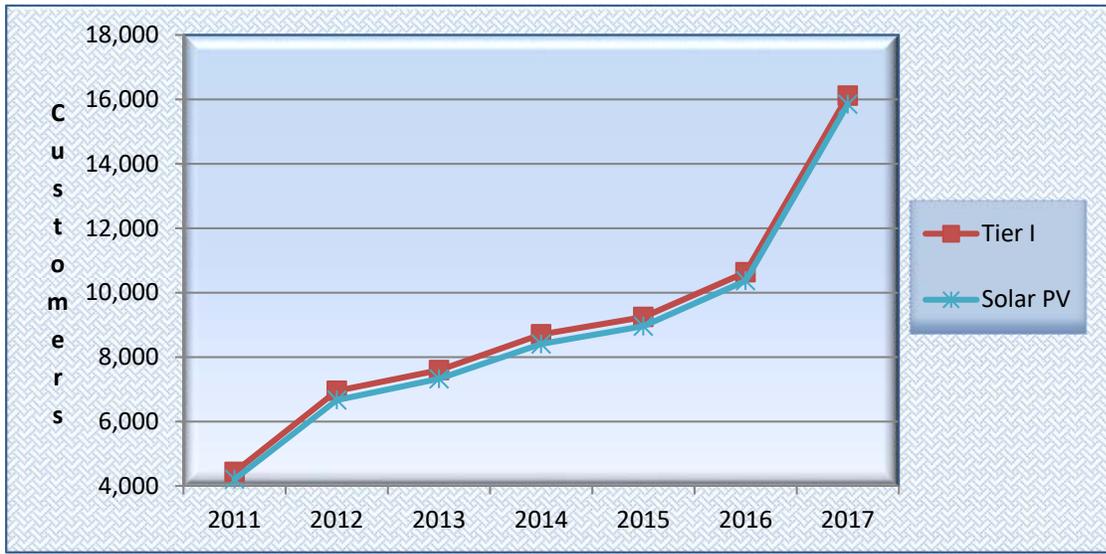


Figure 1d: Trends-- Number of Net Metered Solar & Tier I Customers 2011-2017



IV. *Estimated Generation Capacity by EDC Service Territory (kW): 2015-17*

TABLE 3A: ESTIMATED GENERATION NAMEPLATE CAPACITY BY EDC SERVICE TERRITORY (KW) 2017

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Tier I	7,682	850	11,049	1,011	47,261	7,145	2,929	79,397	50	127,854	38	285,266
Solar PV	7,474	850	10,882	991	42,089	6,445	1,991	78,669	50	100,174	17	249,632
Tier II	0	0	0	0	3	2,990	0	4,151	0	0	0	7,144
Total	7,682	850	11,049	1,011	47,264	10,135	2,929	83,548	50	127,854	38	292,410

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier

TABLE 3B: ESTIMATED GENERATION NAMEPLATE CAPACITY BY EDC SERVICE TERRITORY (KW) 2016

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Tier I	6,750	684	5,612	936	42,078	6,381	2,042	59,828	51	105,844	38	230,244
Solar PV	6,542	667	5,455	916	36,906	5,681	704	59,100	51	83,602	17	199,641
Tier II	0	0	0	0	3	2,990	0	4,151	0	0	0	7,144
Total	6,750	684	5,612	936	42,081	9,371	2,042	63,979	51	105,844	38	237,388

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I

TABLE 3C: ESTIMATED GENERATION NAMEPLATE CAPACITY BY EDC SERVICE TERRITORY (KW) 2015

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Tier I	5,766	667	5,168	932	39,492	5,641	1,909	56,482	42	96,685	38	212,822
Solar PV	5,659	667	5,012	913	34,320	4,941	573	55,753	42	73,465	17	181,362
Tier II	0	0	0	0	3	2,945	0	2,501	0	0	0	5,449
Total	5,766	667	5,168	932	39,495	8,586	1,909	58,983	42	96,685	38	218,271

*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I.

Figure 2a: Estimated Generation Capacity by EDC Service Territory (kW) 2017

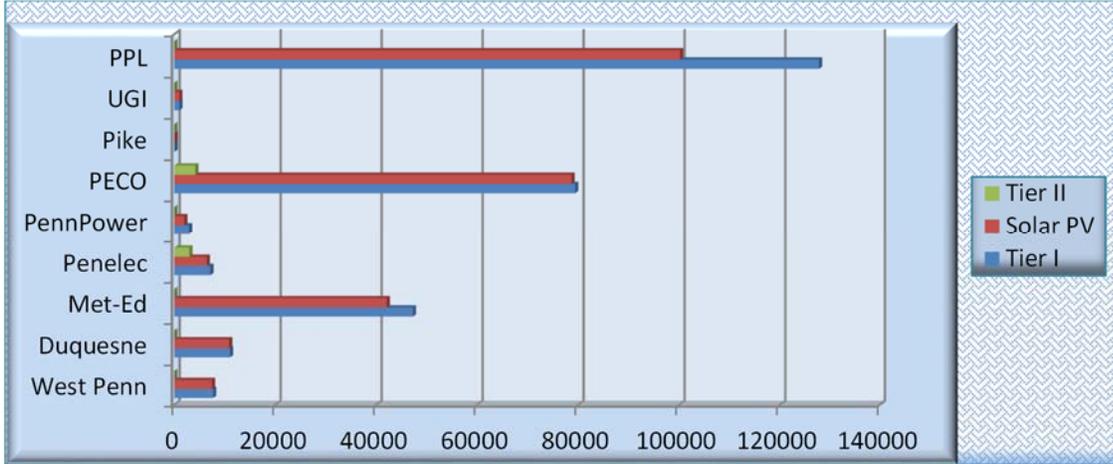


Figure 2b: Estimated Generation Capacity by EDC Service Territory (kW) 2016

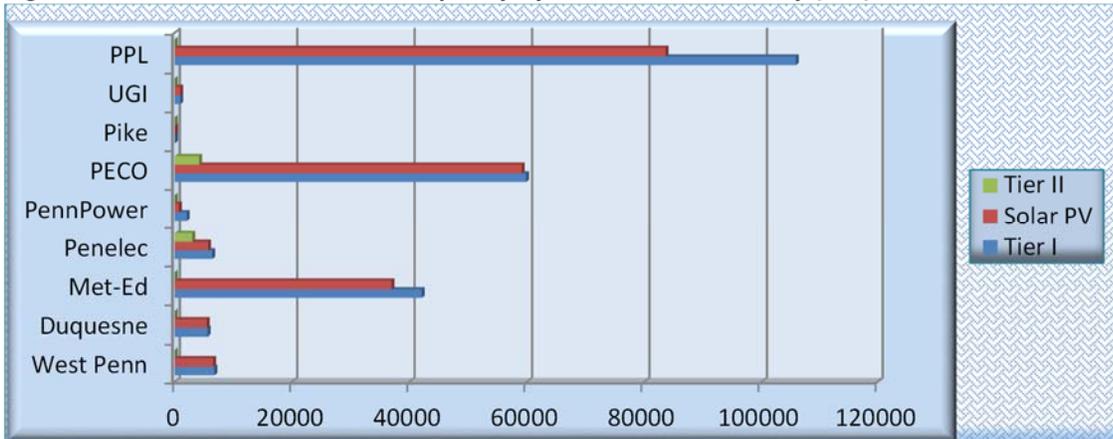


Figure 2c: Estimated Generation Capacity by EDC Service Territory (kW) 2015

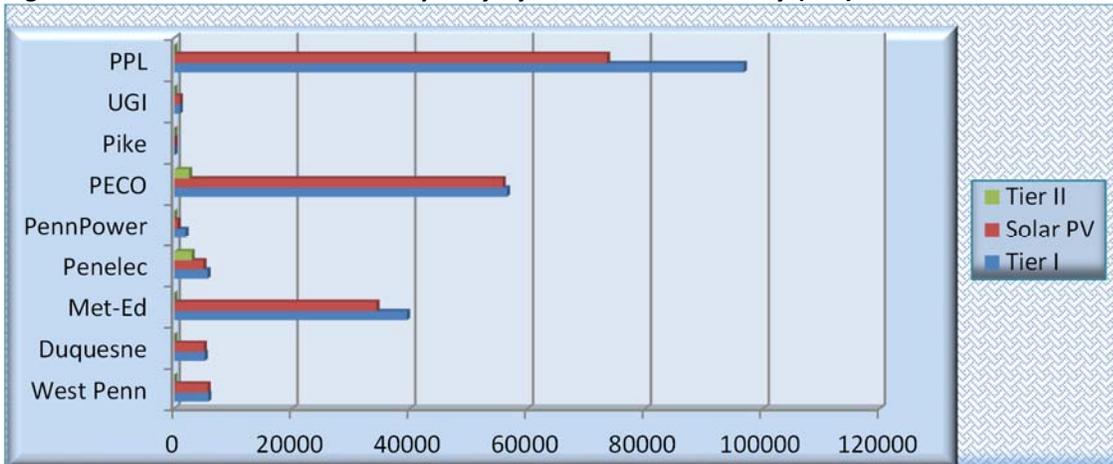
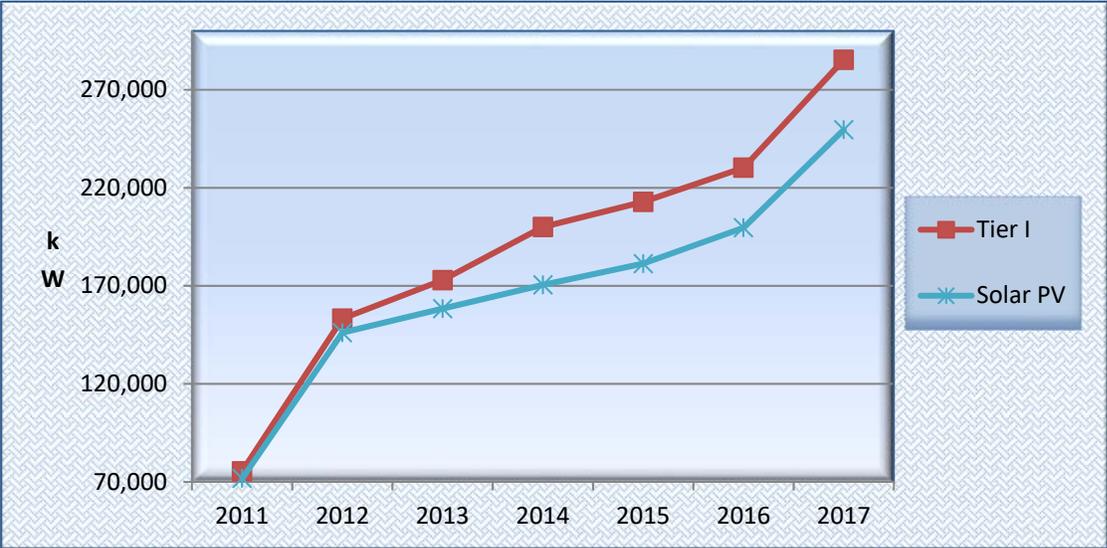


Figure 2d Trends—Net Metered Capacity (kW) Solar & Tier I 2011-2017



V. Interconnection Requests by EDC Service Territory: 2015-2017

TABLE 4A: NUMBER OF INTERCONNECTION REQUESTS BY EDC SERVICE TERRITORY 2017

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Level I	62	3	1,318	2	701	68	7	3,005	0	969	0	6,135
Level II	28	1	218	1	368	17	7	860	0	387	0	1,887
Level III	0	1	0	0	2	0	0	16	0	5	0	24
Level IV	0	0	0	0	0	0	0	0	0	0	0	0
Total	90	5	1,536	3	1,071	85	14	3,881	0	1,361	0	8,046

TABLE 4B: NUMBER OF INTERCONNECTION REQUESTS BY EDC SERVICE TERRITORY 2016

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Level I	51	2	76	1	73	33	7	1,924*	0	252	0	2,419
Level II	31	0	23	0	40	17	8	420	0	123	0	662
Level III	0	0	0	0	3	1	0	2	0	1	0	7
Level IV	0	0	0	0	0	0	0	4	0	0	0	4
Total	82	2	99	1	116	51	15	2,350	0	376	0	3,092

*Value reflects sharp increase in solar applications.

TABLE 4C: NUMBER OF INTERCONNECTION REQUESTS BY EDC SERVICE TERRITORY 2015

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Total
Level I	38	0	23	7	74	17	5	146	0	173	0	483
Level II	11	0	8	0	14	9	1	33	0	49	0	125
Level III	0	0	0	0	0	0	0	4	0	2	0	6
Level IV	0	0	0	0	0	0	0	0	0	0	0	0
Total	49	0	31	7	88	26	6	183	0	224	0	614

Figure 3a: Number of Interconnection Requests by EDC Service Territory 2017

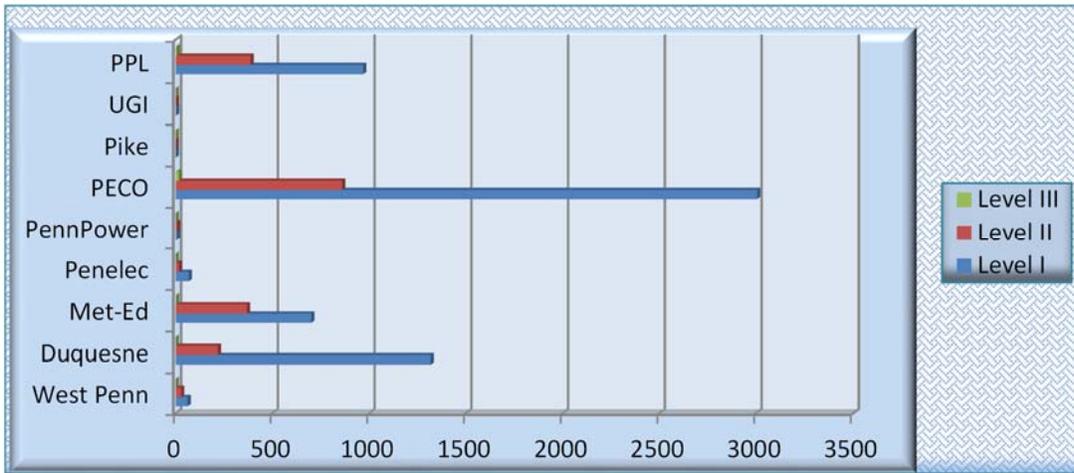


Figure 3b: Number of Interconnection Requests by EDC Service Territory 2016

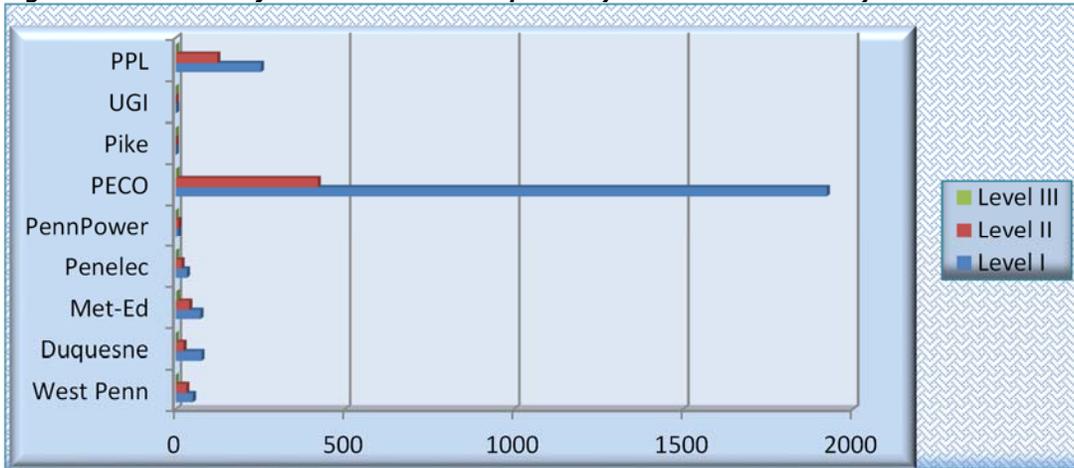


Figure 3c: Number of Interconnection Requests by EDC Service Territory 2015

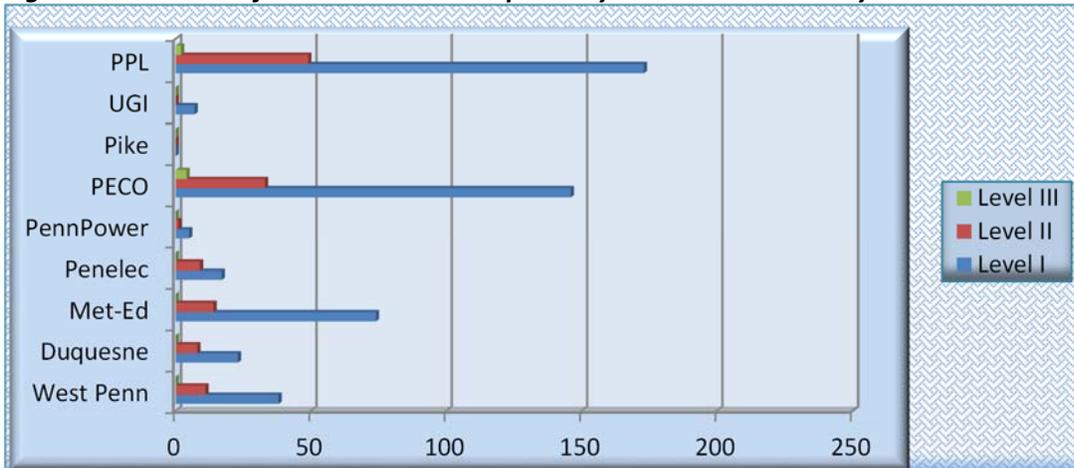
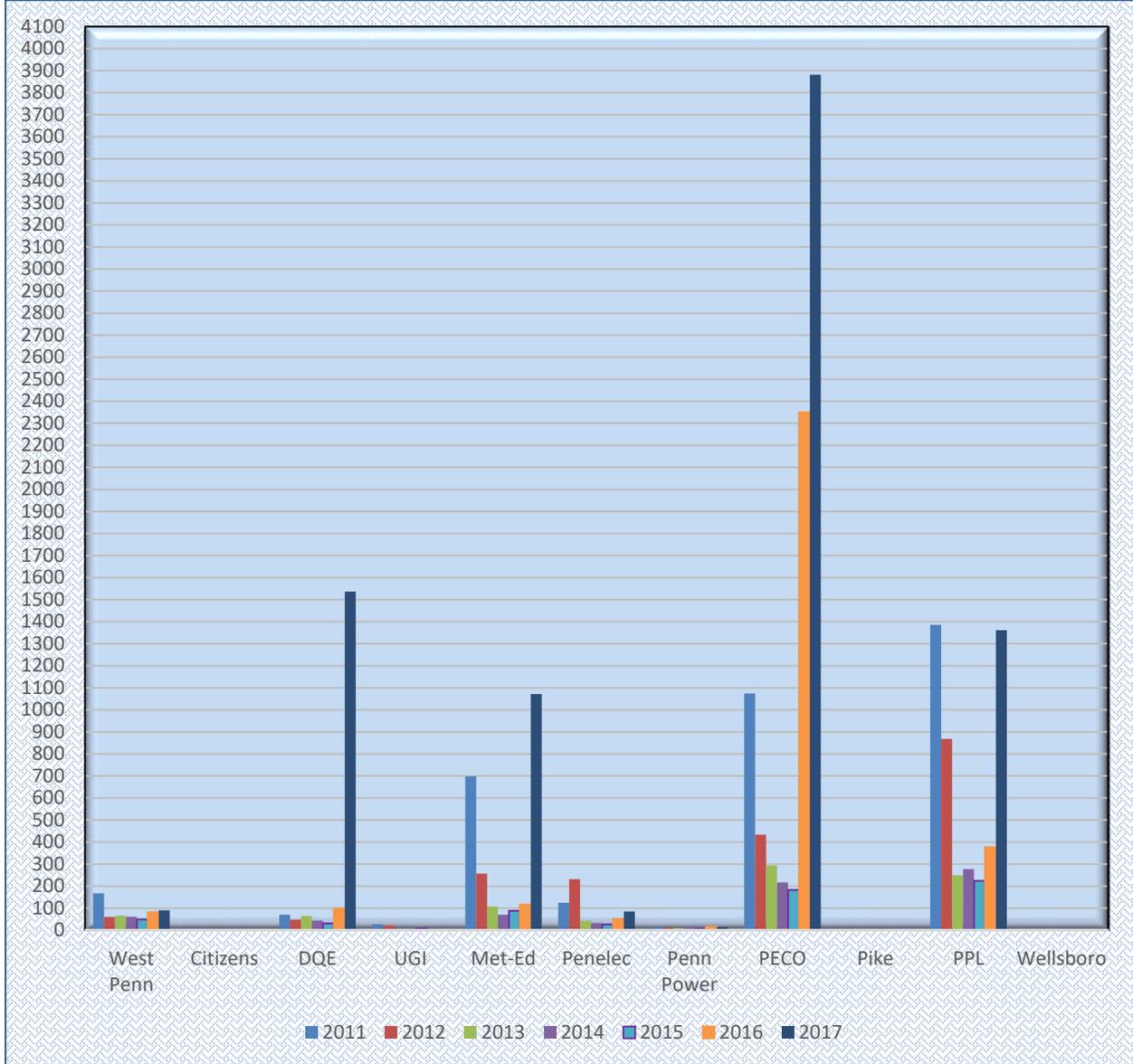


Figure 3d: Trends-- Number of Interconnection Requests by EDC Service Territory 2011-2017



**VI. Mean Number of Days to Complete Interconnection Request Approvals:
2015-17**

TABLE 5A: MEAN NUMBER OF DAYS TO COMPLETE INTERCONNECTION REQUEST APPROVALS BY EDC SERVICE TERRITORY 2017

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Mean
Level I	4	3	21	1	26	7	1	10	0	7	0	7
Level II	5	0	22	4	37	7	4	11	0	7	0	9
Level III	0	90	0	0	187	0	0	87	0	7	0	34
Level IV	0	0	0	0	0	0	0	0	0	0	0	0

TABLE 5B: MEAN NUMBER OF DAYS TO COMPLETE INTERCONNECTION REQUEST APPROVALS BY EDC SERVICE TERRITORY 2016

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Mean
Level I	4	0	4	1	6	4	3	10	0	7	0	4
Level II	5	0	4	0	15	5	3	11	0	7	0	5
Level III	0	0	0	0	0	1	0	0	0	7	0	1
Level IV	0	0	0	0	0	0	0	2	0	0	0	0

TABLE 5C: MEAN NUMBER OF DAYS TO COMPLETE INTERCONNECTION REQUEST APPROVALS BY EDC SERVICE TERRITORY 2015

Resource	West Penn	Citizens	DQE	UGI	Met-Ed	Penelec	Penn Power	PECO	Pike	PPL	Wellsboro	Mean
Level I	4	0	4	2	3	4	1	6	0	7	0	3
Level II	5	0	5	0	10	1	28	4	0	7	0	5
Level III	0	0	0	0	0	0	0	15	0	0	0	1
Level IV	0	0	0	0	0	0	0	0	0	0	0	0

Figure 4a: Mean Number of Days - Interconnection Request Approvals 2017

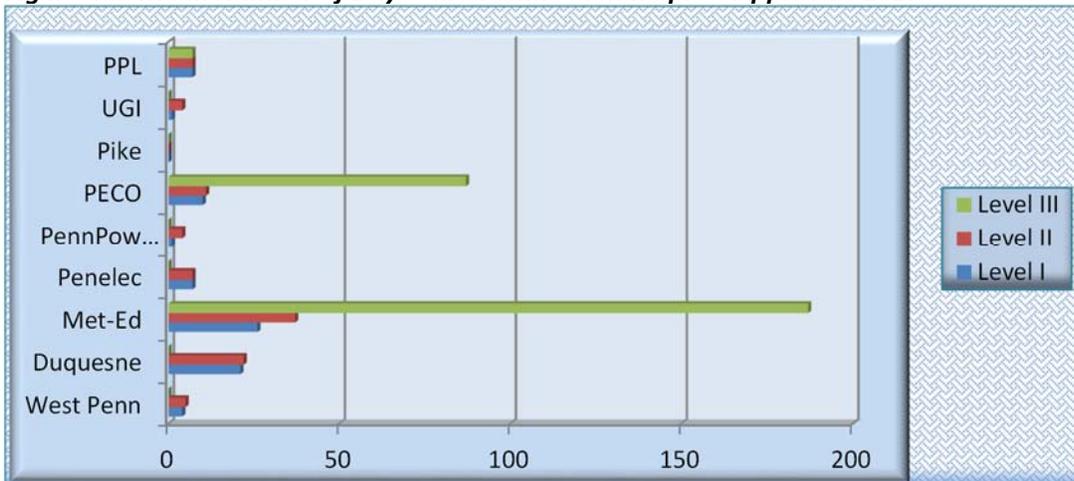


Figure 4b: Mean Number of Days - Interconnection Request Approvals 2016

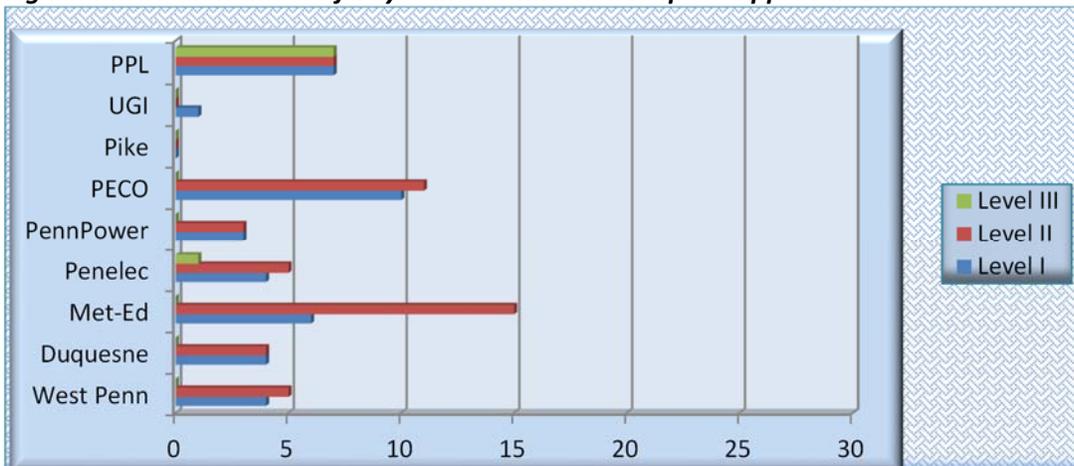


Figure 4c Mean Number of Days - Interconnection Request Approvals 2015

