



***Net-Metering &  
Interconnection Report  
2012-14***

***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.<sup>1</sup> 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. The regulations established by the PUC require electric distribution EDCs and EGSs to submit annual reports to the Commission.<sup>2</sup>

This report contains the number of customer-generators interconnected to the EDC's distribution system as well as the status of interconnection requests processed by the EDC 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<sup>3</sup> 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 show 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.<sup>4</sup>

**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.<sup>5</sup>

**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.

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

<sup>2</sup> See [52 Pa Code §75.13\(g\)](#)

<sup>3</sup> See [52 Pa Code §75.1](#)

<sup>4</sup> See [52 Pa. Code § 75.34](#)

<sup>5</sup> 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: 2012-14

TABLE 1: SUMMARY OF CUSTOMERS INTERCONNECTED 2012-14

|   | Data as of May 31, 2012 |          |         |         | Data as of May 31, 2013 |          |         |         | Data as of May 31, 2014 |          |         |         |
|---|-------------------------|----------|---------|---------|-------------------------|----------|---------|---------|-------------------------|----------|---------|---------|
|   | 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                 | 6,953                   | 6,667    | 18      | 6,971   | 7,595                   | 7,327    | 12      | 7,607   | 8,707                   | 8,407    | 13      | 8,720   |
| Estimated Generation Nameplate Capacity in kW | 152,293                 | 146,156  | 7,198   | 159,491 | 172,911                 | 158,381  | 5,443   | 178,355 | 200,019                 | 170,532  | 5,449   | 205,468 |

\*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: 2012-14

TABLE 2A: NUMBER OF CUSTOMER-GENERATORS BY EDC SERVICE TERRITORY 2014

| Resource     | West Penn | Citizens | DQE | UGI | Met-Ed | Penelec | Penn Power | PECO  | Pike | PPL   | Wellsboro | Total |
|--------------|-----------|----------|-----|-----|--------|---------|------------|-------|------|-------|-----------|-------|
| Tier I       | 469       | 24       | 269 | 78  | 1,507  | 400     | 64         | 2,558 | 4    | 3,325 | 9         | 8,707 |
| Solar PV     | 430       | 24       | 251 | 72  | 1,481  | 351     | 55         | 2,551 | 4    | 3,185 | 3         | 8,407 |
| Tier II      | 0         | 0        | 0   | 0   | 2      | 3       | 0          | 8     | 0    | 0     | 0         | 13    |
| <b>Total</b> | 469       | 24       | 269 | 78  | 1,509  | 403     | 64         | 2,567 | 4    | 3,325 | 9         | 8,721 |

\*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 2013

| Resource     | West Penn | Citizens | DQE | UGI | Met-Ed | Penelec | Penn Power | PECO  | Pike | PPL   | Wellsboro | Total |
|--------------|-----------|----------|-----|-----|--------|---------|------------|-------|------|-------|-----------|-------|
| Tier I       | 408       | 21       | 194 | 72  | 1,384  | 368     | 53         | 2,034 | 4    | 3,048 | 9         | 7,595 |
| Solar PV     | 370       | 21       | 176 | 66  | 1,360  | 348     | 44         | 2,022 | 4    | 2,913 | 3         | 7,327 |
| Tier II      | 0         | 0        | 0   | 0   | 2      | 3       | 0          | 7     | 0    | 0     | 0         | 12    |
| <b>Total</b> | 408       | 21       | 194 | 72  | 1,386  | 371     | 53         | 2,041 | 4    | 3,048 | 9         | 7,607 |

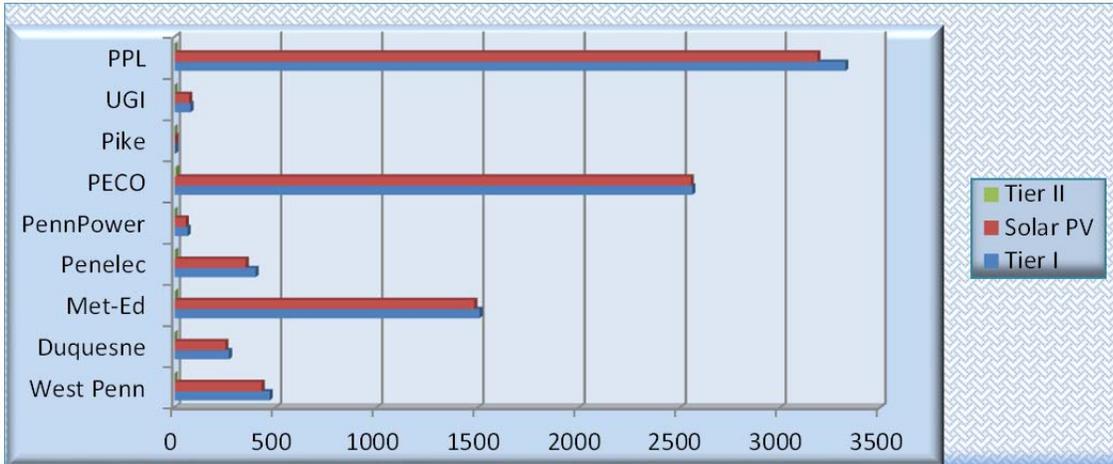
\*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I.

TABLE 2C: NUMBER OF CUSTOMER-GENERATORS BY EDC SERVICE TERRITORY 2012

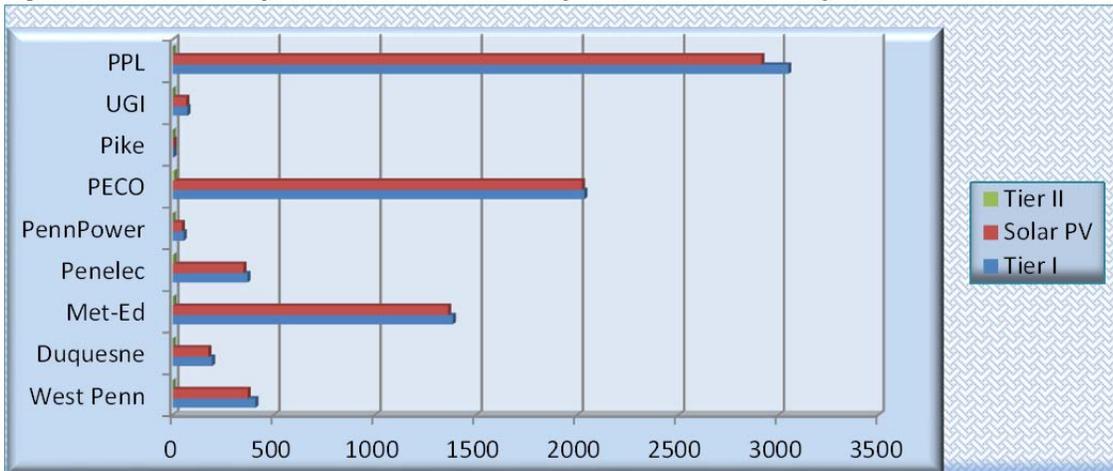
| Resource     | West Penn | Citizens | DQE | UGI | Met-Ed | Penelec | Penn Power | PECO  | Pike | PPL   | Wellsboro | Total |
|--------------|-----------|----------|-----|-----|--------|---------|------------|-------|------|-------|-----------|-------|
| Tier I       | 346       | 19       | 152 | 66  | 1,274  | 312     | 42         | 1,934 | 0    | 2,799 | 9         | 6,953 |
| Solar PV     | 308       | 19       | 135 | 60  | 1,250  | 265     | 36         | 1,924 | 0    | 2,667 | 3         | 6,667 |
| Tier II      | 1         | 0        | 0   | 0   | 3      | 3       | 2          | 7     | 0    | 0     | 0         | 16    |
| <b>Total</b> | 347       | 19       | 152 | 66  | 1,277  | 315     | 44         | 1,943 | 0    | 2,799 | 9         | 6,971 |

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

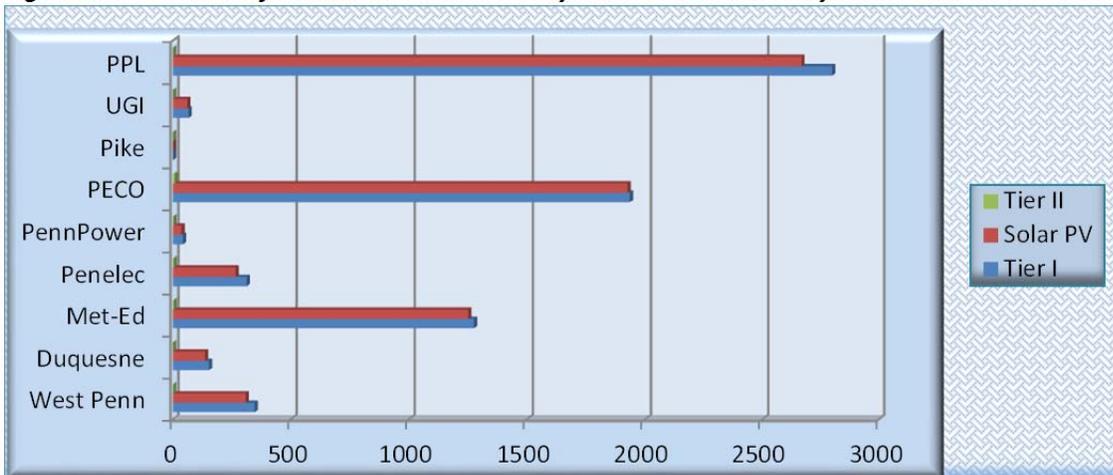
**Figure 1a: Number of Customer-Generators by EDC Service Territory: 2014**



**Figure 1b: Number of Customer-Generators by EDC Service Territory: 2013**



**Figure 1c: Number of Customer-Generators by EDC Service Territory: 2012**



#### IV. Estimated Generation Capacity by EDC Service Territory (kW): 2012-14

TABLE 3A: ESTIMATED GENERATION NAMEPLATE CAPACITY BY EDC SERVICE TERRITORY (KW) 2014

| Resource     | West Penn    | Citizens   | DQE          | UGI        | Met-Ed        | Penelec      | Penn Power   | PECO          | Pike      | PPL           | Wellsboro | Total          |
|--------------|--------------|------------|--------------|------------|---------------|--------------|--------------|---------------|-----------|---------------|-----------|----------------|
| Tier I       | 5,302        | 667        | 4,816        | 874        | 38,299        | 5,332        | 1,890        | 50,759        | 42        | 92,000        | 38        | 200,019        |
| Solar PV     | 5,195        | 667        | 4,660        | 855        | 33,127        | 4,390        | 551          | 50,714        | 42        | 70,314        | 17        | 170,532        |
| Tier II      | 0            | 0          | 0            | 0          | 3             | 2,945        | 0            | 2,501         | 0         | 0             | 0         | 5,449          |
| <b>Total</b> | <b>5,302</b> | <b>667</b> | <b>4,816</b> | <b>874</b> | <b>38,302</b> | <b>8,277</b> | <b>1,890</b> | <b>53,260</b> | <b>42</b> | <b>92,000</b> | <b>38</b> | <b>205,468</b> |

\*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) 2013

| Resource     | West Penn    | Citizens   | DQE          | UGI        | Met-Ed        | Penelec      | Penn Power   | PECO          | Pike      | PPL           | Wellsboro | Total          |
|--------------|--------------|------------|--------------|------------|---------------|--------------|--------------|---------------|-----------|---------------|-----------|----------------|
| Tier I       | 4,770        | 640        | 4,188        | 839        | 31,612        | 5,109        | 1,179        | 43,464        | 42        | 81,031        | 38        | 172,912        |
| Solar PV     | 4,667        | 640        | 4,031        | 820        | 31,430        | 4,199        | 442          | 42,735        | 42        | 69,359        | 17        | 158,382        |
| Tier II      | 0            | 0          | 0            | 0          | 3             | 2,945        | 0            | 2,495         | 0         | 0             | 0         | 5,443          |
| <b>Total</b> | <b>4,770</b> | <b>640</b> | <b>4,188</b> | <b>839</b> | <b>31,615</b> | <b>8,054</b> | <b>1,179</b> | <b>45,959</b> | <b>42</b> | <b>81,031</b> | <b>38</b> | <b>178,355</b> |

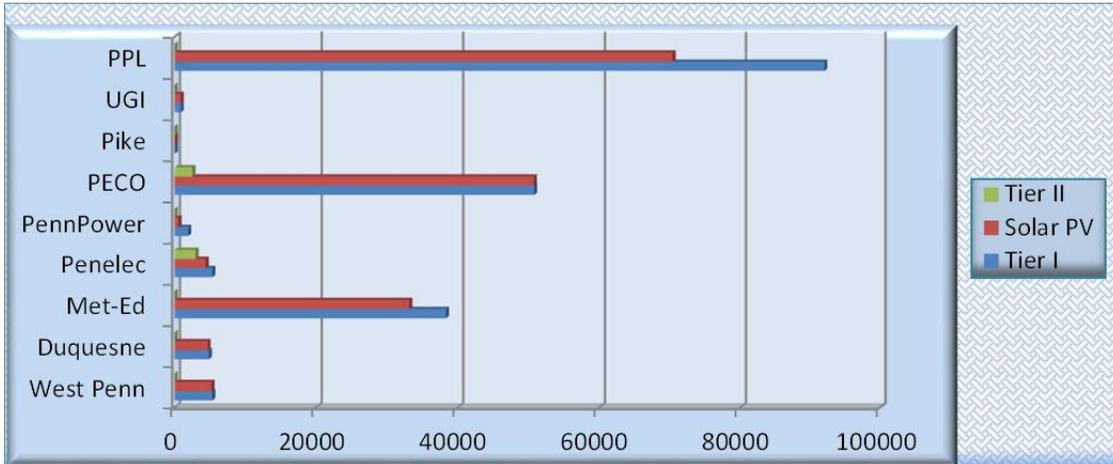
\*Solar PV is a Tier I resource. The Solar PV column separately identifies the Solar PV component of Tier I

TABLE 3C: ESTIMATED GENERATION NAMEPLATE CAPACITY BY EDC SERVICE TERRITORY (KW) 2012

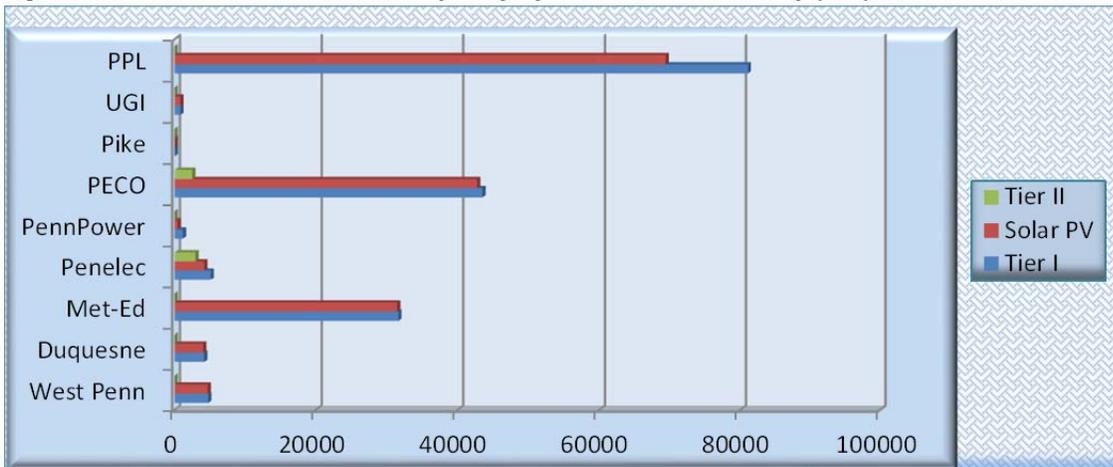
| Resource     | West Penn    | Citizens   | DQE          | UGI        | Met-Ed        | Penelec      | Penn Power   | PECO          | Pike     | PPL           | Wellsboro | Total          |
|--------------|--------------|------------|--------------|------------|---------------|--------------|--------------|---------------|----------|---------------|-----------|----------------|
| Tier I       | 4,154        | 626        | 1,455        | 805        | 29,970        | 4,059        | 459          | 37,702        | 0        | 73,026        | 37        | 152,293        |
| Solar PV     | 4,051        | 0          | 1,300        | 786        | 29,788        | 3,334        | 373          | 37,660        | 0        | 68,847        | 17        | 146,156        |
| Tier II      | 5            | 0          | 0            | 0          | 1,103         | 2,945        | 650          | 2,495         | 0        | 0             | 0         | 7,198          |
| <b>Total</b> | <b>4,159</b> | <b>626</b> | <b>1,455</b> | <b>805</b> | <b>31,073</b> | <b>7,004</b> | <b>1,109</b> | <b>48,197</b> | <b>0</b> | <b>73,026</b> | <b>37</b> | <b>159,491</b> |

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

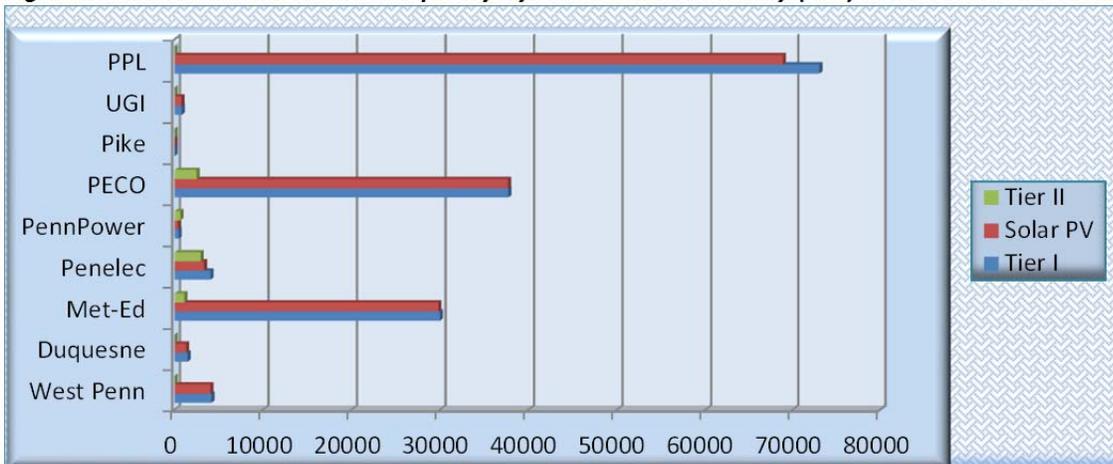
**Figure 2a: Estimated Generation Capacity by EDC Service Territory (kW) 2014**



**Figure 2b: Estimated Generation Capacity by EDC Service Territory (kW) 2013**



**Figure 2c: Estimated Generation Capacity by EDC Service Territory (kW) 2012**



**V. Interconnection Requests by EDC Service Territory: 2012-2014**

TABLE 4A: NUMBER OF INTERCONNECTION REQUESTS BY EDC SERVICE TERRITORY 2014

| Resource     | West Penn | Citizens | DQE       | UGI      | Met-Ed    | Penelec   | Penn Power | PECO       | Pike     | PPL        | Wellsboro | Total      |
|--------------|-----------|----------|-----------|----------|-----------|-----------|------------|------------|----------|------------|-----------|------------|
| Level I      | 48        | 3        | 33        | 6        | 59        | 29        | 8          | 164        | 0        | 213        | 0         | 563        |
| Level II     | 13        | 0        | 11        | 0        | 9         | 3         | 5          | 51         | 0        | 63         | 0         | 155        |
| Level III    | 0         | 0        | 0         | 0        | 2         | 0         | 1          | 1          | 0        | 1          | 0         | 5          |
| Level IV     | 0         | 0        | 0         | 0        | 0         | 0         | 0          | 1          | 0        | 0          | 0         | 1          |
| <b>Total</b> | <b>61</b> | <b>3</b> | <b>44</b> | <b>6</b> | <b>70</b> | <b>32</b> | <b>14</b>  | <b>217</b> | <b>0</b> | <b>277</b> | <b>0</b>  | <b>724</b> |

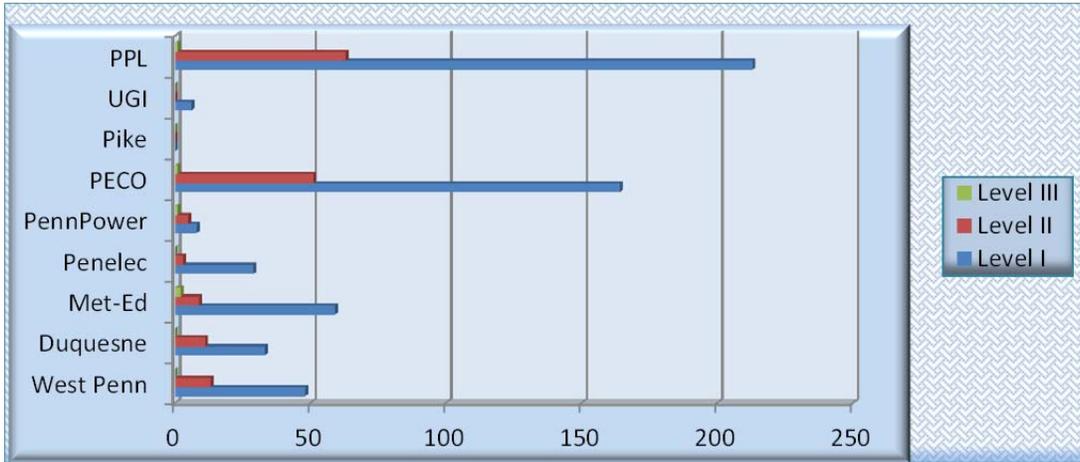
TABLE 4B: NUMBER OF INTERCONNECTION REQUESTS BY EDC SERVICE TERRITORY 2013

| Resource     | West Penn | Citizens | DQE       | UGI      | Met-Ed     | Penelec   | Penn Power | PECO       | Pike     | PPL        | Wellsboro | Total      |
|--------------|-----------|----------|-----------|----------|------------|-----------|------------|------------|----------|------------|-----------|------------|
| Level I      | 49        | 3        | 46        | 6        | 107        | 30        | 7          | 251        | 0        | 189        | 0         | 688        |
| Level II     | 17        | 0        | 19        | 0        | 0          | 13        | 2          | 40         | 0        | 60         | 0         | 151        |
| Level III    | 0         | 0        | 0         | 0        | 0          | 0         | 0          | 1          | 0        | 0          | 0         | 1          |
| Level IV     | 0         | 0        | 0         | 0        | 0          | 0         | 0          | 1          | 0        | 0          | 0         | 1          |
| <b>Total</b> | <b>66</b> | <b>3</b> | <b>65</b> | <b>6</b> | <b>107</b> | <b>43</b> | <b>9</b>   | <b>293</b> | <b>0</b> | <b>249</b> | <b>0</b>  | <b>841</b> |

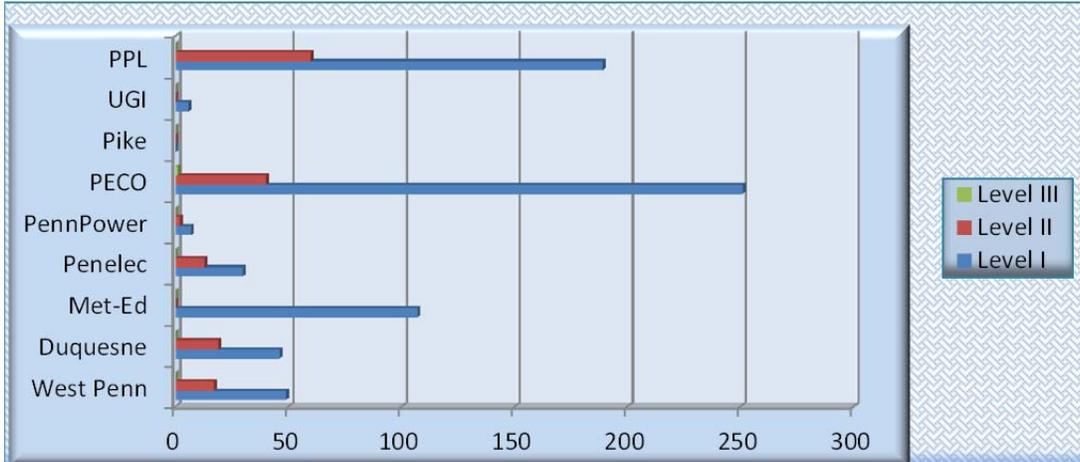
TABLE 4C: NUMBER OF INTERCONNECTION REQUESTS BY EDC SERVICE TERRITORY 2012

| Resource     | West Penn | Citizens | DQE       | UGI       | Met-Ed     | Penelec    | Penn Power | PECO       | Pike     | PPL        | Wellsboro | Total        |
|--------------|-----------|----------|-----------|-----------|------------|------------|------------|------------|----------|------------|-----------|--------------|
| Level I      | 48        | 5        | 41        | 13        | 180        | 200        | 7          | 311        | 0        | 626        | 0         | 1,431        |
| Level II     | 12        | 0        | 7         | 8         | 76         | 29         | 5          | 111        | 0        | 242        | 0         | 490          |
| Level III    | 0         | 0        | 0         | 0         | 1          | 1          | 0          | 8          | 0        | 0          | 0         | 10           |
| Level IV     | 0         | 0        | 0         | 0         | 0          | 1          | 0          | 3          | 0        | 0          | 0         | 4            |
| <b>Total</b> | <b>60</b> | <b>5</b> | <b>48</b> | <b>21</b> | <b>257</b> | <b>231</b> | <b>12</b>  | <b>433</b> | <b>0</b> | <b>868</b> | <b>0</b>  | <b>1,935</b> |

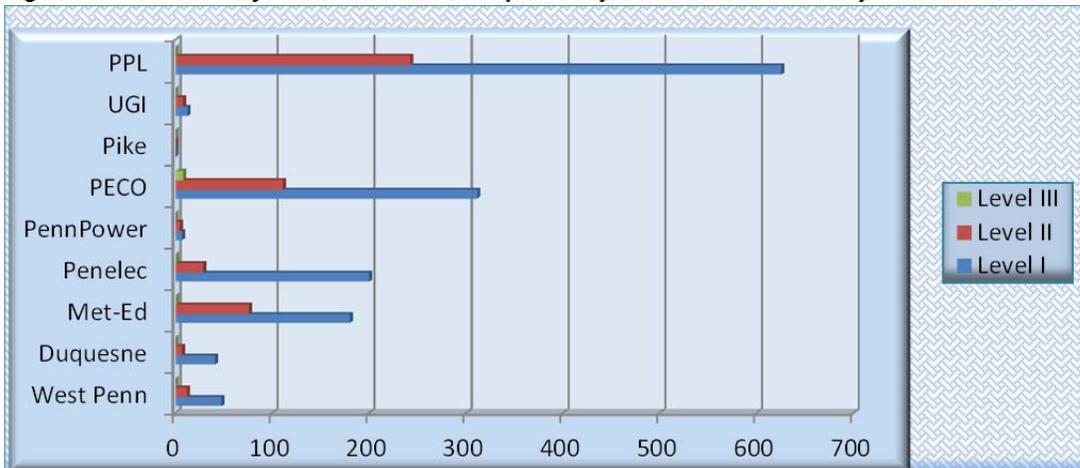
**Figure 3a: Number of Interconnection Requests by EDC Service Territory 2014**



**Figure 3b: Number of Interconnection Requests by EDC Service Territory 2013**



**Figure 3c: Number of Interconnection Requests by EDC Service Territory 2012**



**VI. Mean Number of Days to Complete Interconnection Request Approvals:  
2012-14**

TABLE 5A: MEAN NUMBER OF DAYS TO COMPLETE INTERCONNECTION REQUEST APPROVALS BY EDC SERVICE TERRITORY 2014

| Resource  | West Penn | Citizens | DQE  | UGI | Met-Ed | Penelec | Penn Power | PECO | Pike | PPL | Wellsboro | Mean |
|-----------|-----------|----------|------|-----|--------|---------|------------|------|------|-----|-----------|------|
| Level I   | 4         | 2        | 3.33 | 3   | 5      | 4       | 1          | 8    | 0    | 7   | 0         | 4    |
| Level II  | 5         | 0        | 6.27 | 0   | 13     | 1       | 1          | 9    | 0    | 7   | 0         | 6    |
| Level III | 0         | 0        | 0    | 0   | 263    | 0       | 43         | 1    | 0    | 0   | 0         | 102  |
| Level IV  | 0         | 0        | 0    | 0   | 0      | 0       | 0          | 1    | 0    | 0   | 0         | 1    |

TABLE 5B: MEAN NUMBER OF DAYS TO COMPLETE INTERCONNECTION REQUEST APPROVALS BY EDC SERVICE TERRITORY 2013

| Resource  | West Penn | Citizens | DQE  | UGI | Met-Ed | Penelec | Penn Power | PECO | Pike | PPL | Wellsboro | Mean |
|-----------|-----------|----------|------|-----|--------|---------|------------|------|------|-----|-----------|------|
| Level I   | 5         | 2        | 2.41 | 3   | 11     | 15      | 5          | 4    | 0    | 7   | 0         | 6    |
| Level II  | 5         | 0        | 5.26 | 0   | 22     | 24      | 5          | 6    | 0    | 7   | 0         | 11   |
| Level III | 0         | 0        | 0    | 0   | 0      | 0       | 0          | 18   | 0    | 0   | 0         | 18   |
| Level IV  | 0         | 0        | 0    | 0   | 0      | 0       | 0          | 11   | 0    | 0   | 0         | 11   |

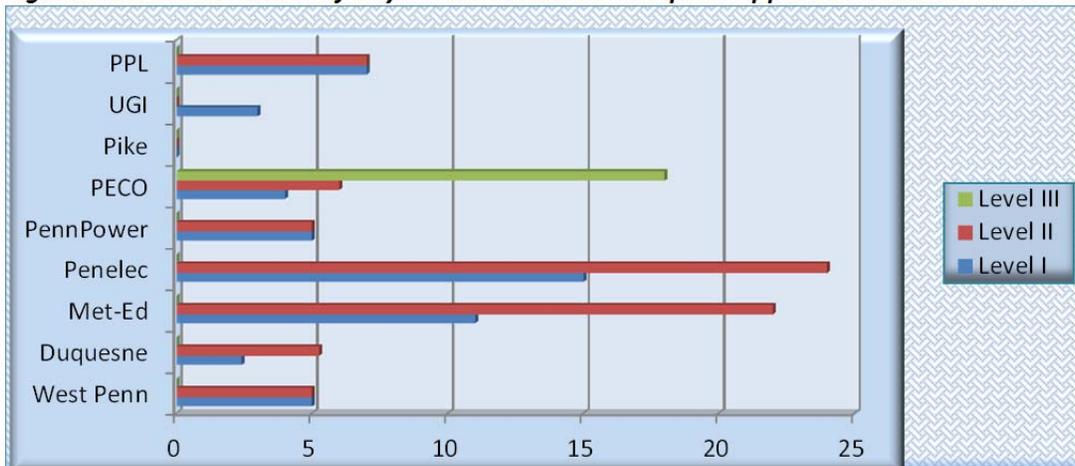
TABLE 5C: MEAN NUMBER OF DAYS TO COMPLETE INTERCONNECTION REQUEST APPROVALS BY EDC SERVICE TERRITORY 2012

| Resource  | West Penn | Citizens | DQE  | UGI | Met-Ed | Penelec | Penn Power | PECO | Pike | PPL | Wellsboro | Mean |
|-----------|-----------|----------|------|-----|--------|---------|------------|------|------|-----|-----------|------|
| Level I   | 38        | 2        | 2.78 | 4   | 65     | 19      | 26         | 7    | 0    | 7   | 0         | 19   |
| Level II  | 62        | 0        | 2.86 | 5   | 73     | 77      | 59         | 14   | 0    | 7   | 0         | 38   |
| Level III | 0         | 0        | 0    | 0   | 0      | 0       | 0          | 5    | 0    | 0   | 0         | 5    |
| Level IV  | 0         | 0        | 0    | 0   | 0      | 0       | 0          | 5    | 0    | 0   | 0         | 5    |

**Figure 4a: Mean Number of Days - Interconnection Request Approvals 2014**



**Figure 4b: Mean Number of Days - Interconnection Request Approvals 2013**



**Figure 4c Mean Number of Days - Interconnection Request Approvals 2012**

