# **EE Education**

MIC May 1, 2024 IMM



### **Technical Reference Manuals (TRM)**

- The technical reference manuals (TRM) referenced by EE Providers are often several years old and are unlikely to include the actual current baseline conditions that should be used for valuation of projects.
- Given the development cycle, the data underlying the TRM lags the publishing date by several years.
- As a result, for the normal three year capacity market timing, a three year old TRM, relying on data from as much as five years prior to publication, is used to estimate savings for at least four years into the future.



### **Other References Cited in EE M&V**

- In addition to Technical Reference Manuals, other studies and references are cited in EE M&V Plans and Reports.
- These citations are likewise used to justify the claimed benefits and savings attributed to Energy Efficiency projects.
- These materials, as with the TRMs, are often several years out of date and commonly 10 years old and in some cases older.



### **Current Versions of Technical Reference Manuals**

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\*PA TRM issued August 2019, reissued without change Feb 2021





### **EE Revenues**

- EE revenues are the revenues received by EE providers by zone.
- The EE revenues are costs that are paid by customers.
- The allocation of EE costs to customers follows the allocation of capacity costs.
- EE costs are allocated to all customers in each separately cleared LDA for all zones in each cleared LDA.



#### **EE RPM Revenues by Zone**

Zone	Revenue		Percent of EE Revenue	
	2023/2024	2024/2025	2023/2024	2024/2025
AECO	\$2,099,556	\$2,972,733	2.2%	2.5%
AEP	\$8,220,965	\$8,311,932	8.8%	6.9%
APS	\$3,495,717	\$4,013,640	3.7%	3.3%
ATSI	\$5,621,390	\$6,164,976	6.0%	5.1%
BGE	\$6,954,765	\$10,559,058	7.4%	8.8%
COMED	\$11,102,489	\$10,328,888	11.9%	8.6%
DAY	\$1,280,027	\$1,347,504	1.4%	1.1%
DEOK	\$2,036,790	\$6,482,315	2.2%	5.4%
DOM	\$8,823,920	\$9,388,297	9.4%	7.8%
DPL	\$3,352,769	\$5,305,356	3.6%	4.4%
DUQ	\$1,543,017	\$1,385,670	1.6%	1.2%
JCPL	\$4,289,937	\$6,579,743	4.6%	5.5%
METED	\$2,127,988	\$2,832,578	2.3%	2.4%
PECO	\$9,970,022	\$11,488,878	10.7%	9.6%
PENELEC	\$1,847,587	\$2,554,351	2.0%	2.1%
PEPCO	\$5,287,930	\$7,075,048	5.6%	5.9%
PPL	\$5,447,923	\$6,937,766	5.8%	5.8%
PSEG	\$10,073,096	\$16,076,315	10.8%	13.4%
RECO	\$27,170	\$64,182	0.0%	0.1%
Total	\$93,603,058	\$119,869,230	100.0%	100.0%

### **EE Addback Does not Increase Clearing Prices**

- The result of the current EE addback method is that there is no impact on the capacity market clearing price.
- Customers do pay for the cleared quantity of EE at market clearing prices as an uplift payment that provides a subsidy to EE sellers.
- EE costs to load are not billed as a distinct line item but are included in the Locational Reliability Charges assessed to load.



### Load Charges in RPM

- In accordance with the RAA, each LSE incurs a Locational Reliability Charge (subject to certain offsets and other adjustments as described in Attachment DD, Sections 5.14B through 5.14E and Section 5.15)
- Locational Reliability Charges are equal to the LSE's Daily Unforced Capacity Obligation in a Zone during the Delivery Year multiplied by the applicable Final Zonal Capacity Price in the Zone.



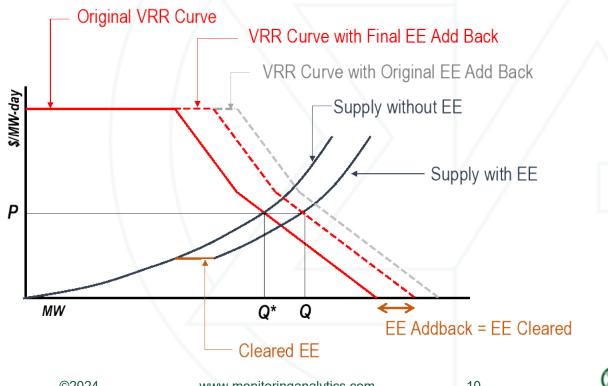
### Allocation of EE Costs in RPM

- There are no Tariff references specific to the allocation of EE costs in RPM.
- While EE does not affect the clearing price, by shifting the demand curve through the addback, and ultimately the capacity obligation of the zones, the EE costs are incurred by the load through the Locational Reliability Charge.



## Illustration of BRA Clearing with EE Addback

**Final Pass** 



**Q\*: Total Cleared without EE (UCAP MW)** 

Q: Total Cleared with EE (UCAP MW)

P: Clearing Price (\$/MW-day)

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