

Distributed Generation and Energy Efficiency Study

Decision No. 74785

Arizona Corporation Commission
2016 Biennial Transmission Assessment

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DG & EE Study

- 8th BTA ordered utilities with retail load to perform a study
 - Disaggregate effects of DG & EE from load
 - In 5th planning year determine effects of DG & EE on future planned transmission system
 - How would your plan change if there was no additional DG and EE over the next 5 years

DG & EE Study

- Two scenarios were studied
 - Base scenario is traditional planning load
 - DG/EE forecasts netted out of load
 - DG/EE scenario is responding to 8th BTA decision
 - DG/EE forecasts for next 5 years added back into load
 - DG/EE values assumed all in metro Phoenix load pocket

Case	Scenario	Load	EE	DG
1	Base	Peak	On	On
2	EE/DG	Peak	Pre 2016 only	Pre 2016 only

APS DG and EE Impact

- EE was the primary contributor to the impacts found in the Study.
 - The 703 MW difference is comprised of 79% EE and 21% DG.

Case	Scenario	Load (MW)	EE (MW)	DG (MW)	Total APS Load (MW)
1	Base	8064	-558	-145	7361
2	DG/EE	8064	0	0	8064

APS's DG and EE Conclusion

- APS's Transmission Plans for 2020 would not change if DG/EE growth did NOT occur as forecasted between 2016-2020.
- Potential impact on Subtransmission Planning if DG/EE growth did NOT occur as forecasted between 2016-2020.
 - Impact was seen on 230/69kV transformers
 - Advancement of the in-service date for one 230/69kV substation could be needed.
 - Specific need date and final determination of need is dependent upon actual location of where DG/EE effects are modeled.

Questions?

- Contact Jason Spitzkoff
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