

EUC Resource Planning Working Group Questions

Batch 4

Submitted October 30, 2023

1. Did the recent transmission study identify all of AE's significant transmission needs?
No. The study looked at a Zero Carbon Generation scenario that isn't reflective of our current situation, so it would not result in the identification of all of Austin Energy's significant transmission needs. In addition, this study, as any other, will become dated due to the dynamic nature of what is happening on the electrical system with new loads/customers, new generation and new transmission being built across it. As such, Austin Energy's transmission needs are not defined by a single study. Instead, there is an industry standard and regulatory requirement for an iterative approach through annual planning assessments, which reflect the best-known information, forecasts, and assumptions at the time.
2. Please provide cost assumptions that AE is using in modeling for utility scale wind, utility scale and distributed solar, utility scale and distributed batteries, coal, gas, nuclear, hydrogen (combustion and fuel cells), energy efficiency, demand response, and any other resources being considered

The cost assumptions for the technologies considered in the update are covered in the modeling results presented at the November 13th, EUC meeting, specifically slides 25 & 26. The chart below shows the assumptions for Energy Efficiency, which weren't listed in the presentation.

DSM Type	Effective Range	Cost (\$/kW)	Cost (\$/MW)	Dispatch Hours	Notes
EE	0-25 MW	\$20	\$20,000		Green Building Code Only (Resi, MF & Com)
EE	25-50 MW	\$200	\$200,000		Commercial
EE	50-75 MW	\$950	\$950,000		Residential without WX
EE	75-100 MW	\$1200	\$1,200,000		Residential with WX

3. In terms of the questions above, what assumptions are being made by Austin Energy in terms of the use of REACH. Is it only being assumed to be used on the coal plant, or will you also assume the use of REACH for the gas plants? If you will use REACH for the gas plants in the model, please share any information about how that will impact the gas plant's use in the model.

The current Plan speaks to REACH continuing beyond the retirement of Fayette and cites estimates of an 8% reduction in non-Fayette emissions each year while maintaining the flexibility to protect our customer's rates in periods of high prices in the wholesale market, until achieving zero carbon emissions by 2035.

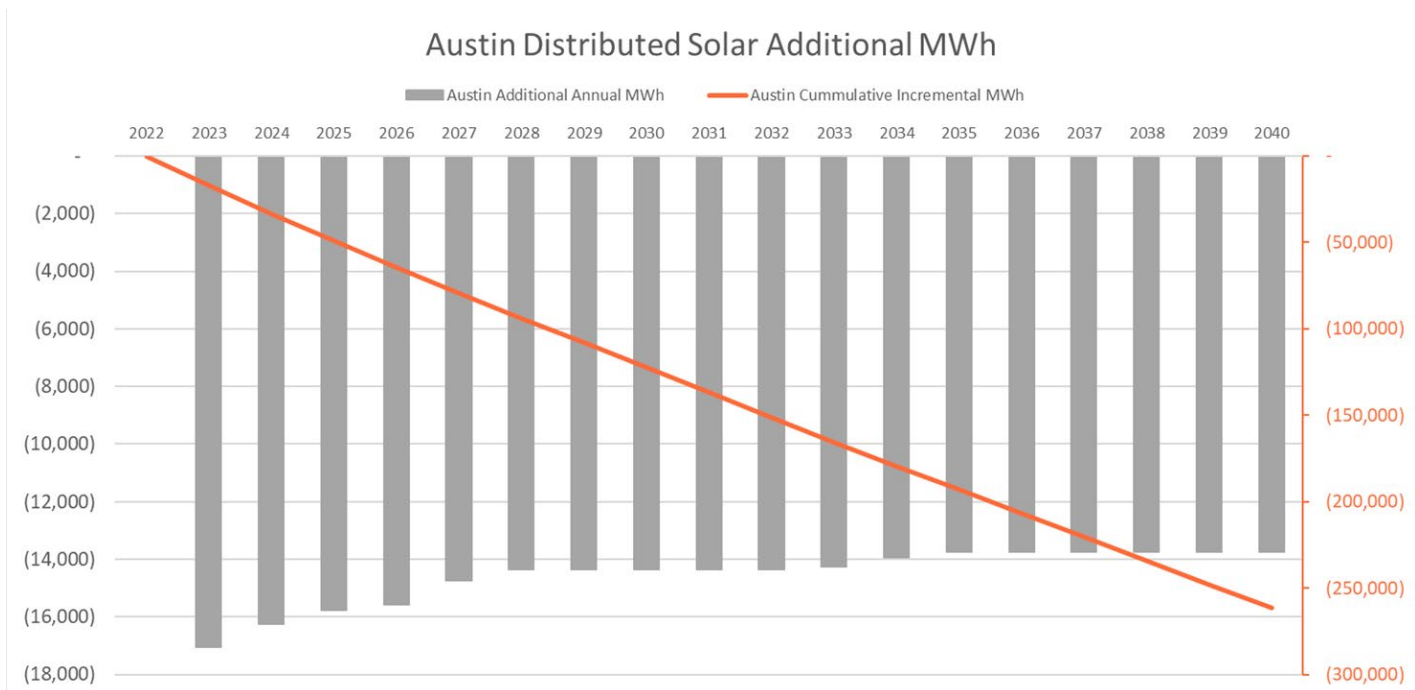
For modeling, REACH is focused mainly on the coal plant to reduce the emissions cost effectively and affordably. Including REACH on both the coal plant and the gas plants will result higher PSA costs to the customers.

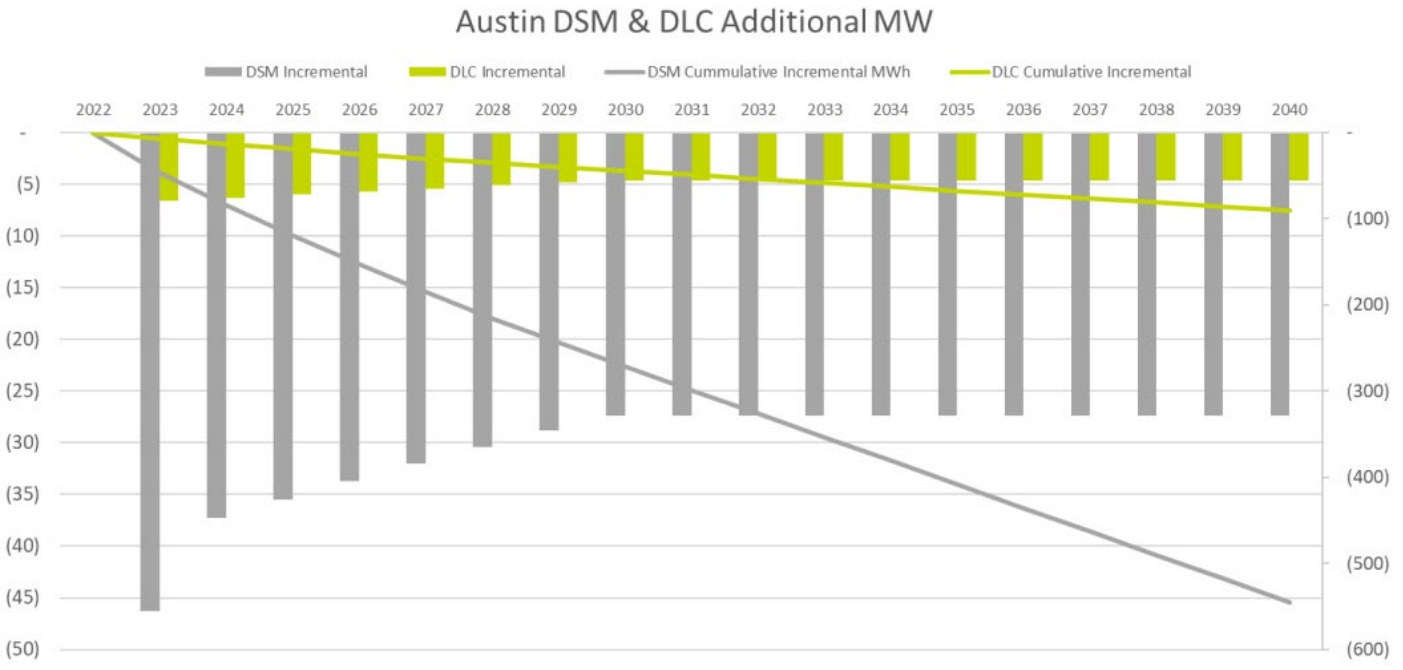
4. During its presentation to the EUC, in discussing the scenarios it was initially running, AE staff said they would assume that AE would continue to use both the gas plants and the Fayette Power Plant through 2035. Can you confirm this is still Austin Energy’s plan? Are you willing to model 2030 as an option? Specifically, would Austin Energy be willing to run the following resource mix options?
 1. A Zero Carbon by 2030 Scenario, in which both the Fayette Coal Plant and the Decker and Sandhill plants are assumed to no longer be operated by 2030 and are instead replaced with zero carbon resources.
 2. A Zero Carbon by 2035 Scenario, where the gas plants continue to operate through 2035, but with only the Fayette Coal Plant not run by 1) the end of 2025 and 2) the end of 2030.

At the Nov 13th EUC meeting, Austin Energy presented the portfolios that it has modeled and the assumptions behind the portfolios. Austin Energy also presented the modeling results and welcomes feedback. During the Nov 13th EUC meeting, Commissioner Reed indicated the Working Group would like to develop 2-3 portfolios and ask Austin Energy to run them in December. We would be happy to review and discuss the feasibility of running those suggested portfolios. If provided by December 4, we anticipate being able to provide results at the January EUC meeting.

5. Requesting again high-definition versions of these graphs that aren’t blurry and can be easily read. Whoever created them just needs to export the file instead of cropping it from another document.

Please see below for better resolution versions for two of the graphs.

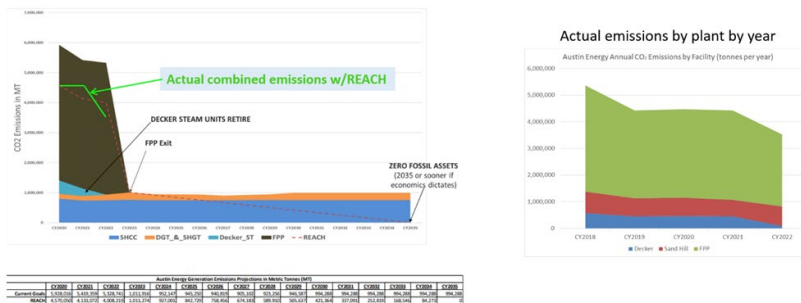




For the third graph, there is no higher-resolution version available. We took a screen-shot of the graph from the Resource Plan posted online and superimposed a new line over it. Following is the cumulative source data used in the companion graph “Actual emissions by plant by year” next to the original projection if you need additional granularity into the actual amounts.

YEAR	Tonnes CO2
2019	4,419,000
2020	4,476,000
2021	4,438,000
2022	3,542,000

Actual Emissions superimposed over the original Resource Plan projection



*These are projections as of March 2020 and actual results for a given period may differ depending upon market conditions.