Summary of Building Energy Code Impacts on Demand, Including New Construction & Retrofits

Forecasts	Firm Load, Less Additional Efficiency, plus 13.75% (MW)		Need for Generation at Peak (MW) Without and With Retirements of Plants >50 Years Old		Need for Baseload (MW) Without and With Retirements of Plants >50 Years Old	
	2015	2020	2015	2020	2015	2020
ERCOT/Review Team Sensitivity Forecast Resource Needs[(a)]	77,510	82,818	(734) to 5,389	3,233 to 15,669	(286) to 2,102	1,261 to 6,111
Staff DEIS-1 Direct Testimony: After Savings from New Building Energy Codes[(b)]	76,854	81,491	(1,389) to 4,734	1,906 to 14,342	(539) to 1,849	748 to 5,598
Staff DEIS-1 Direct Testimony: After Savings from New Building Energy Codes, including Retrofits[(c)]	76,599	80,973	(1,645) to 4,478	1,388 to 13,824	(638) to 1,750	548 to 5,398

(a) Values taken from FEIS at Table 8-6 (Ex. NRC00003C).
(b) Total Savings from Staff DEIS-1 Direct Testimony, Table 4 (Ex. NRC000031) subtracted from the ERCOT/Review Team Sensitivity forecast. (Table 4 peak demand savings values adjusted in first four columns above to include a 13.75% target reserve margin. Last two columns did not require addition of a reserve margin.)
(c) Calculated same as (b) with Total Savings from Staff DEIS-1 Direct Testimony multiplied by 1.39.
*Parentheses indicate that the value is negative.

- For retrofits (additions, alterations, and renovations), the peak residential demand savings are 163 MW in 2015 and 324 MW in 2020; the baseload demand savings from retrofits are 72 MW in 2015 and 143 MW in 2020. Calculation Worksheet: Savings Achieved from Application of 2009 Building Energy Code to Retrofits (Ex. NRC000066). These values are 39% of the residential savings estimates from the Staff's initial testimony, which reports peak demand savings of 426 MW in 2015 and 836 MW in 2020, and baseload demand savings of 187 MW in 2015 and 368 MW in 2020. Staff DEIS-1 Direct Testimony at Table 4 (Ex. NRC000031).
- There is no reason to believe that a larger percentage of savings would occur for commercial and industrial retrofits.
- Therefore, the Staff increased the savings reported in the Staff's testimony for all sectors (residential, commercial, and industrial) by 39% to account for retrofits. The impacts on the overall results are presented in the table above.
- The Staff's calculations conservatively assume that the Staff's initial testimony did not account for any of the impact of building energy codes on retrofits in the residential, commercial, and industrial sectors.