



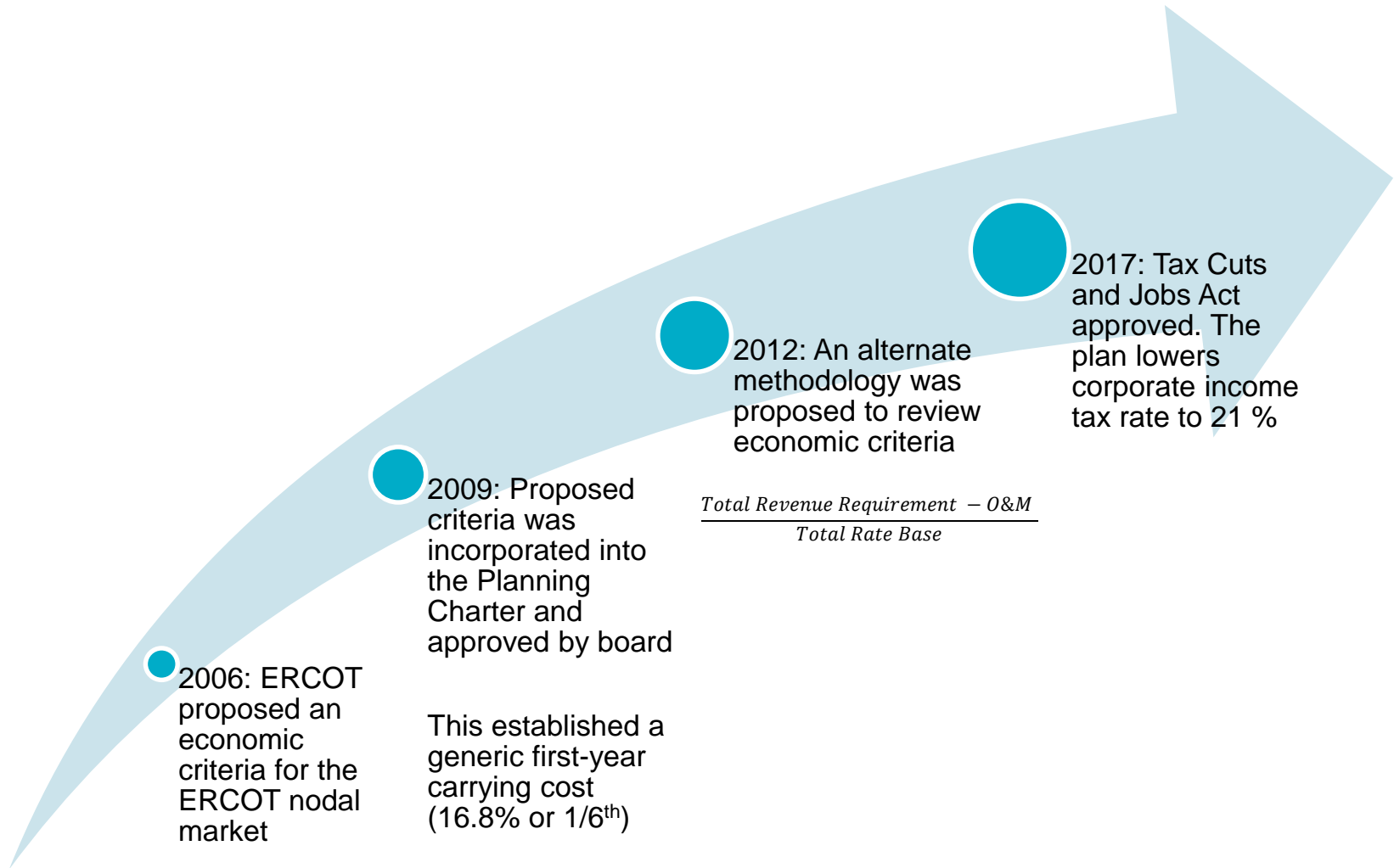
# Financial Assumptions for ERCOT Economic Planning Criteria

**Sandeep Borkar**

- Background
- Motivation for the review
- Revenue requirement
- Proposed economic criteria
- Proposed process to determine revenue requirement

- “...the following must be met for a transmission line in the Electric Reliability Council of Texas (ERCOT) power region. **The applicant must present an economic cost-benefit study that includes an analysis that shows that the levelized ERCOT-wide annual production cost savings attributable to the proposed project are equal to or greater than the first-year annual revenue requirement of the proposed project of which the transmission line is a part.** Indirect costs and benefits to the transmission system may be included in the cost-benefit study. The commission shall give great weight to such a study if it is conducted by ERCOT.” *[Color emphasis added.]*

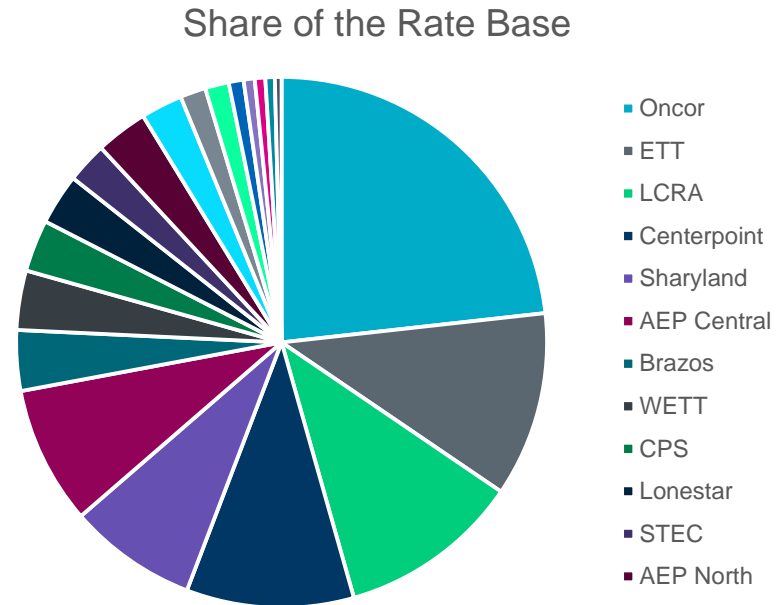
# Quick History and Motivation for this review



- Items typically included in a revenue requirement of a regulated rate-based transmission asset
  - Return on rate base
    - Cost of equity and debt
    - Debt to equity ratio
  - Depreciation
  - O&M fixed and variable
  - Taxes (Federal Income Tax, Property Tax etc.)
- Majority of these are available via TDSP PUCT rate filings and do not change often

# Current Methodology

- Review filing related to wholesale transmission rates
  - Total revenue requirement
  - O&M expenses
  - Total rate base
- Determine Revenue Requirement for each TSP
- Calculate weighted average of annual revenue requirement based on the rate base



$$Rev. Req = \frac{Total Rev. Req. - O\&M}{Total Rate Base}$$

Revenue Requirement =  
14.13% or ~ 1/7th

- Review filing related to wholesale transmission rates
  - Cost of debt
  - Cost of equity
  - Debt to equity ratio
- Assumptions
  - Generic Depreciation, Taxes and O&M for each TSP
- Determine Revenue Requirement for each TSP assuming a generic project
- Calculate weighted average of annual revenue requirement based on the rate base

For a sample TDSP

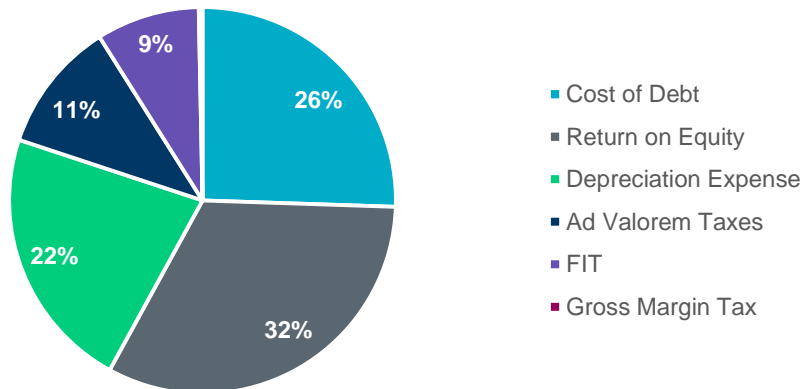
Item	Year 1
Return on Rate Base	\$ 19,509
Depreciation	\$ 8,798
Fixed O&M	\$ -
Variable O&M	\$ 2,601
Ad Valorem Tax	\$ 2,621
Federal Income Tax	\$ 1,112
Total Revenue Requirement	\$ 34,641
Capital Cost	\$ 250,000
First year's revenue requirement	13.86%

Wtd. Avg. Revenue  
Requirement = 13.83%

# Schedule-based Methodology (example ONCOR)

- Review ONCOR estimate for a sample project
- Assumptions
  - Oncor did not include O&M in the filing
- Determine Revenue Requirement

First Year's Rev. Req. (ONCOR)



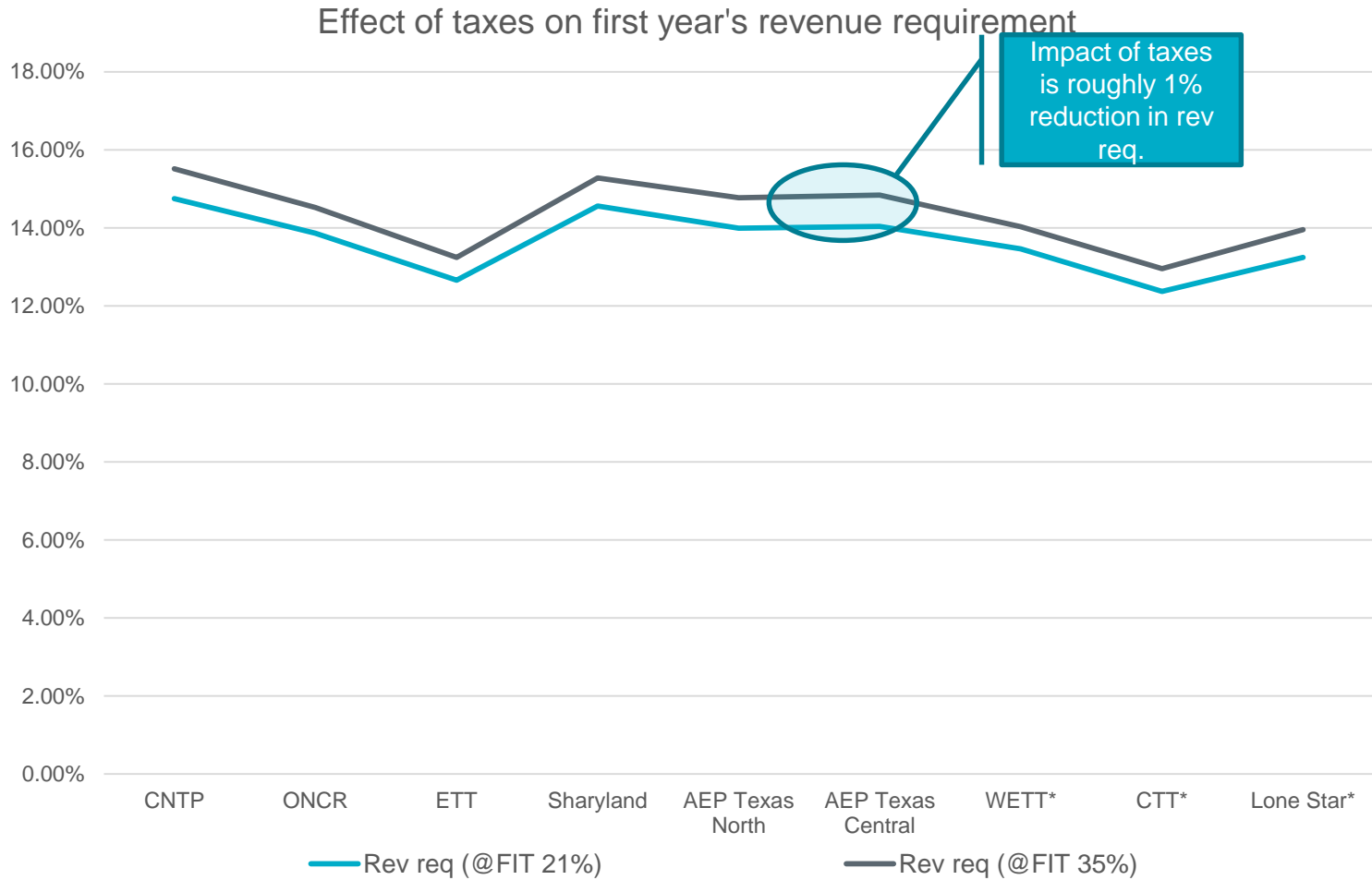
Item	Year 1 \$\$	% of capital invested
Total Estimated Project Cost	\$47,580,000	
Cost of Debt	\$1,560,624	3.28%
Return on Equity	\$1,984,086	4.17%
Depreciation Expense	\$1,351,272	2.84%
Ad Valorem Taxes	\$670,878	1.41%
FIT	\$528,138	1.11%
Gross Margin Tax	\$19,032	0.04%
First Year's Revenue Requirement	\$6,114,030	12.85%
With 1% O&M	\$6,589,830	13.85%

Revenue Requirement = 13.85%





# Impact of changes in tax law



\* Updated filings were not available at the time of this analysis



- Change in tax law resulted in roughly 1% reduction in the revenue requirements
- New revenue requirement will be set to 14% based on the detailed schedule-based methodology
- Above criteria to be effective starting October 2018

- Use the detailed schedule-based methodology
- Use of only larger IOUs to determine the criteria, with some exceptions
- Include a generic 1% O&M

# Questions and Comments

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# Appendix

# Revenue requirement by TSP

