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| NPRR Number | [1247](https://www.ercot.com/mktrules/issues/NPRR1247) | NPRR Title | Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects  |
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| Date | September 11, 2024 |
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| Submitter’s Information |
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| Market Segment | Industrial Consumer |
| Comments |

TIEC files these comments with language that (1) clarify the time horizon; (2) specify what data the congestion cost savings test measures; and (3) establish a requirement for ERCOT to publish data related to its modeling.

First, the Protocols should clearly reference the time horizon for ERCOT’s study process. When adopting the revised16 TAC § 25.101, the Commission specified that ERCOT will use its current transmission planning study to calculate the proposed savings, which has a six-year horizon, as set out in Planning Guide Section 3.1.1.2, Regional Transmission Plan. The references to the “expected life of the project” could be interpreted to undermine the Commission’s direction and levelize predicted savings over a much longer timeframe. TIEC has substantial concerns about the uncertainty of modeling any “benefits” of transmission projects for decades in the future. Instead, the NPRR should specifically reference the horizon in Planning Guide Section 3.1.1.2 so that there is transparency if this timeline is ever changed in the future.

Additionally, the language describing the methodology for the congestion cost savings test in paragraph (6) of Section 3.11.2 is vague. It states that ERCOT will calculate the total system-wide consumer energy costs resulting from the Project, but there is no reference to E3’s recommended test or a specific explanation of how ERCOT will calculate the change in costs. The reference to using the “outputs” from the production cost savings test described in paragraph (5) is also confusing. TIEC has revised the language in paragraph (6) of Section 3.11.2 to clarify that the test will measure the load-weighted change in the hourly average Locational Marginal Prices (LMPs), using the same simulation used for the production cost savings test.

Lastly, ERCOT’s market simulation will be very sensitive to assumptions, and any errors or unreasonable parameters in the simulation could skew the results of either the production cost savings test or the congestion cost savings test. TIEC recommends that the inputs/assumptions and the outputs be made available for stakeholder review to ensure that the economic analyses are sound. Accordingly, ERCOT should publish the relevant modeling assumptions and outputs to ensure stakeholder confidence in ERCOT’s analyses.

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| Revised Cover Page Language |

None

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| Revised Proposed Protocol Language |

3.11.2 Planning Criteria

(1) ERCOT and Transmission Service Providers (TSPs) shall evaluate the need for transmission system improvements and shall evaluate the relative value of alternative improvements based on established technical and economic criteria.

(2) The technical reliability criteria are established by the Planning Guide, Operating Guides, and the North American Electric Reliability Corporation (NERC) Reliability Standards. ERCOT and TSPs shall strongly endeavor to meet these criteria, identify current and future violations thereof and initiate solutions necessary to ensure continual compliance.

(3) ERCOT shall attempt to meet these reliability criteria as economically as possible and shall actively study the need for economic projects to meet this goal.

(4) For economic projects, the net economic benefit of a proposed project, or set of projects, will be assessed over the project’s life based on the net benefit that is reasonably expected to accrue from the project as demonstrated through the production cost savings test or the congestion cost savings test.

(5) To determine the benefit of a proposed project under the production cost savings test, the revenue requirement of the capital cost of the project is compared to the expected savings in system production costs resulting from the project. Other adequately quantifiable and ongoing direct and indirect costs and benefits to the transmission system attributable to the project may be considered as appropriate. The current set of financial assumptions upon which the revenue requirement calculations is based will be reviewed annually, updated as necessary by ERCOT, and posted on the Market Information System (MIS) Secure Area. The expected production costs are based on a chronological simulation of the security-constrained unit commitment and economic dispatch of the generators connected to the ERCOT Transmission Grid to serve the expected ERCOT System Load over the planning horizon. This market simulation is intended to provide a reasonable representation of how the ERCOT System is expected to be operated over the simulated time period. The production costs are projected over the period for which a simulation is feasible under Planning Guide Section 3.1.1.2, Regional Transmission Plan, and the levelized ERCOT-wide annual production cost savings over the period for which the simulation is feasible is calculated and compared to the first year annual revenue requirement of the transmission project. If this production cost savings equals or exceeds this annual revenue requirement for the project, the project will be deemed to demonstrate sufficient economic benefit and will be recommended.

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| ***[NPRR1183: Replace paragraph (5) above with the following upon system implementation:]***(5) To determine the benefit of a proposed project under the production cost savings test, the revenue requirement of the capital cost of the project is compared to the expected savings in system production costs resulting from the project. Other adequately quantifiable and ongoing direct and indirect costs and benefits to the transmission system attributable to the project may be considered as appropriate. The current set of financial assumptions upon which the revenue requirement calculations is based will be reviewed annually, updated as necessary by ERCOT, and posted on the ERCOT website. The expected production costs are based on a chronological simulation of the security-constrained unit commitment and economic dispatch of the generators connected to the ERCOT Transmission Grid to serve the expected ERCOT System Load over the planning horizon. This market simulation is intended to provide a reasonable representation of how the ERCOT System is expected to be operated over the simulated time period. The production costs are projected over the period for which a simulation is feasible under Planning Guide Section 3.1.1.2, Regional Transmission Plan, and the levelized ERCOT-wide annual production cost savings over the period for which the simulation is feasible is calculated and compared to the first year annual revenue requirement of the transmission project. If this production cost savings equals or exceeds this annual revenue requirement for the project, the project will be deemed to demonstrate sufficient economic benefit and will be recommended. |

(6) To determine the benefit of a proposed project under the congestion cost savings test, the revenue requirement of the capital cost of the project is compared to the expected system-wide consumer energy cost reduction resulting from the project. The same market simulation described in paragraph (5) above will also be used to provide an estimate of the expected reduction in total system-wide consumer energy cost due to the project by comparing the changes in the hourly average LMPs, weighted by the associated load. Other adequately quantifiable and ongoing direct and indirect costs and benefits to the transmission system attributable to the project may be considered as appropriate. If the levelized system-wide consumer energy cost reduction equals or exceeds the average of the first three years’ annual revenue requirement for the project, the project will be deemed to demonstrate sufficient economic benefit and will be recommended.

(7) ERCOT shall publish all relevant modeling assumptions and outputs used to determine the benefit of a proposed project under the simulations described in paragraphs (5) and (6) above.