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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 | October 18, 2024 |
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| Submitter’s Information |
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| Market Segment | Independent Retail Electric Provider (IREP) |

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| Comments |

Reliant respectfully submits these comments on top of the 10/15/24 Joint Commenters comments to add necessary details on how the congestion cost savings test calculation will work, increase transparency of modeling inputs and outputs, and provide guardrails to ensure the congestion cost savings test does not produce outcomes inconsistent with the intent of the methodology.

ERCOT filed Nodal Protocol Revision Request (NPRR) 1247 with a request for Urgent status on August 9, 2024 and is requesting expedited approval. Many of the details of how the methodology will work were provided in a non-binding white paper titled “Congestion Cost Savings Test Evaluation Guideline” with an initial version dated September 16, 2024. However, some of the critical components used in the methodology are still unknown and will be developed at a later time. For example, given the significant load growth from large loads in the transmission planning models, ERCOT will need to develop a methodology for placing fictitious generation on the ERCOT System to ensure the planning models can solve. The methodology used by ERCOT to determine where this generation will be located on the system will have a significant impact on the modeled power flows and the congestion patterns subject to the congestion cost savings test. At the October 16, 2024 Planning Working Group (PLWG) meeting, ERCOT staff advised that this methodology will be discussed later through a separate Planning Guide Revision Request (PGRR). Therefore, ERCOT stakeholders are currently in a position of having to approve the Protocol language for the congestion cost savings test without knowing how these critical components of the process will work and the potential impacts on the outcomes of the test. Ideally, ERCOT stakeholders, the ERCOT Board, and the Public Utility Commission of Texas (PUCT) would have full visibility of all of the components and processes that provide inputs to the test, and impact the outcomes of the test, before considering it and determining whether approval is appropriate. Given ERCOT’s desire to approve the congestion cost savings test Protocol language in this NPRR immediately without all of the components of the test defined and known, Reliant provides language to ensure guardrails are in place to prevent outcomes inconsistent with the intent of the methodology. The yet-to-be-defined process to determine the location of fictitious generation in the transmission planning models should not be the driving factor in whether a transmission project meets the economic planning criteria.

Reliant also adds language to ensure that if unserved energy cost needs to be incorporated in the congestion cost savings methodology the most recently approved Value of Lost Load (VOLL) by the PUCT will be utilized.

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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.

 The current set of financial assumptions upon which the revenue requirement calculations for these tests are based will be reviewed annually, updated as necessary by ERCOT, and posted on the Market Information System (MIS) Secure Area. The expected economic benefits are based on chronological simulations 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, comparing simulations with and without the project. These market simulations are intended to provide a reasonable representation of how the ERCOT System is expected to be operated over the simulated time period. From a practical standpoint, it is not feasible to perform these simulations for the entire 30 to 40 year expected life of the project. Therefore, the economic benefits are projected over the period for which simulations are feasible, which is the planning horizon established in Planning Guide Section 3.1.1.2, Regional Transmission Plan, and a qualitative assessment is made of whether the factors driving the economic benefits due to the project can reasonably be expected to continue. If ERCOT must add generation to the planning models that does not satisfy the requirements of Planning Guide Section 6.9, Addition of Proposed Generation to the Planning Models, in order to address a supply and demand deficiency, no transmission project can be approved either through the production cost savings test or the congestion cost savings test if the addition of that generation is the primary reason for either economic criterion being met.

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| ***[NPRR1183: Replace paragraph (4) above with the following upon system implementation:]***(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. The current set of financial assumptions upon which the revenue requirement calculations for these tests are based will be reviewed annually, updated as necessary by ERCOT, and posted on the ERCOT website. The expected economic benefits are based on chronological simulations 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, comparing simulations with and without the project. These market simulations are intended to provide a reasonable representation of how the ERCOT System is expected to be operated over the simulated time period. From a practical standpoint, it is not feasible to perform these simulations for the entire 30 to 40 year expected life of the project. Therefore, the economic benefits are projected over the period for which simulations are feasible, which is the planning horizon established in Planning Guide Section 3.1.1.2, Regional Transmission Plan, and a qualitative assessment is made of whether the factors driving the economic benefits due to the project can reasonably be expected to continue. If ERCOT must add generation to the planning models that does not satisfy the requirements of Planning Guide Section 6.9, Addition of Proposed Generation to the Planning Models, in order to address a supply and demand deficiency, no transmission project can be approved either through the production cost savings test or the congestion cost savings test if the addition of that generation is the primary reason for either economic criterion being met. |

(5) To determine the economic benefits 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 over the expected life of the project. Outputs from the market simulations described in paragraph (4) above will be used to provide an estimate of the expected reduction in total system-wide production cost due to 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. If the levelized ERCOT-wide annual production cost savings equals or exceeds the first-year annual revenue requirement of the transmission project, the project will be deemed to demonstrate sufficient economic benefit and will be recommended. ERCOT will publish requested non-confidential modeling inputs, assumptions, and outputs utilized in the production cost savings test if that information can be reasonably provided.

(6) To determine the economic benefits 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 over the expected life of the project. Outputs from the market simulations described in paragraph (4) above will be used to provide an estimate of the expected reduction in total system-wide consumer energy cost due to the project. In the market simulations, system-wide consumer energy cost will be calculated using hourly load in MWh multiplied by hourly load nodal energy prices in $/MWh. 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. If ERCOT must incorporate unserved energy cost in the market simulations, modeling, or calculation of the congestion cost savings test, ERCOT will use the most recently approved Value of Lost Load (VOLL) by the Public Utility Commission of Texas (PUCT) to determine the economic value of the unserved energy cost. ERCOT will publish requested non-confidential modeling inputs, assumptions, and outputs utilized in the congestion cost savings test if that information can be reasonably provided.

(7) If the “Benefit-to-Cost” ratio (B/C ratio) of a project evaluated under paragraphs (5) and (6) is within 10% of the economic criteria, ERCOT shall perform weather scenario analysis and transmission outage sensitivity analysis to ensure that benefits of a project reflect realistic assumptions and a range of likely conditions as described in a white paper, “Impact of Weather Uncertainty and Transmission Outages on Economic Project Evaluations,” posted to the public system planning area of the ERCOT website.