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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 15, 2024 |
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| Submitter’s Information |
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| Market Segment | Independent Generator (IG) |

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| Comments |

EDF Renewables, Invenergy, and Pattern Energy (collectively, “Joint Commenters”) appreciate the opportunity to comment on Nodal Protocol Revision Request (NPRR) 1247.

**Joint Commenters endorse the 10/3/24 AEP Service Corporation (AEPSC) comments and the additional edits on 10/11/24 by ERCOT staff.**

AEPSC’s proposed amendments to NPRR1247 improve the organization and clarity of the Protocol language. As ERCOT incorporated the AEPSC amendments, the Joint Commenters use the 10/11/24 ERCOT comments as the baseline for redline edits.

**Joint Commenters recommend clarifying how benefits are measured.**

Joint Commenters agree that the benefits of a project are what is being measured, but

add the point in paragraph (4) that benefits are measured by comparing simulations with and without the proposed project. Benefits are not seen directly from one simulation, and changing the language to discuss benefits rather than the modeling of system costs requires that clarification.

**Joint Commenters recommend codifying certain ERCOT practices into the Protocols.**

Joint Commenters also propose a new paragraph (7) to apply ERCOT’s existing practices for the inclusion of weather scenarios and transmission outage sensitivities in certain economic project evaluations. ERCOT’s procedures for applying weather scenarios and transmission outage sensitivities is currently only documented in a white paper, “Impact of Weather Uncertainty and Transmission Outages on Economic Project Evaluations,” posted on the Planning page of the ERCOT website and are not referenced anywhere in current Protocols or Planning Guide language. Referencing the procedures in Protocol language will improve transparency of the economic evaluation process for all stakeholders. Along with that addition the Joint Commenters propose increasing the threshold at which weather and outage sensitivities are considered. The current practice of only taking those additional steps to do a more robust incorporation of real system conditions when projects are within 5% of passing the “Benefit-to-Cost” (B/C) test is too conservative. Increasing the threshold to 10% will allow for a more robust view of the benefits of proposed projects without overly burdening staff.

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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.

 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.

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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. |

(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.

(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. 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) 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.