|  |  |  |  |
| --- | --- | --- | --- |
| NPRR Number | [1247](https://www.ercot.com/mktrules/issues/NPRR1247) | NPRR Title | Incorporation of Congestion Cost Savings Test in Economic Evaluation of Transmission Projects |
| Date Posted | | August 9, 2024 | |
|  | |  | |
| Requested Resolution | | Urgent - Urgent status is requested to allow prompt implementation of planning requirements adopted by the Public Utility Commission of Texas (PUCT) in December 2022. | |
| Nodal Protocol Sections Requiring Revision | | 3.11.2, Planning Criteria | |
| Related Documents Requiring Revision/Related Revision Requests | | None | |
| Revision Description | | This Nodal Protocol Revision Request (NPRR) incorporates the consumer energy cost reduction test as the congestion cost savings test in economic project evaluation to address recent amendments by the PUCT to 16 Texas Administrative Code (TAC) § 25.101 —specifically adding the requirements in § 25.101(b)(3)(A)(i). Consistent with the PUCT’s rule, this NPRR also preserves the production cost savings test as another standalone means to establish economic need for a transmission project.  This NPRR also removes obsolete language regarding transmission projects’ benefits evaluation in paragraph (6) of Section 3.11.2. | |
| Reason for Revision | | [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 1 – Be an industry leader for grid reliability and resilience  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 2 - Enhance the ERCOT region’s economic competitiveness with respect to trends in wholesale power rates and retail electricity prices to consumers  [Strategic Plan](https://www.ercot.com/files/docs/2023/08/25/ERCOT-Strategic-Plan-2024-2028.pdf) Objective 3 - Advance ERCOT, Inc. as an independent leading industry expert and an employer of choice by fostering innovation, investing in our people, and emphasizing the importance of our mission  General system and/or process improvement(s)  Regulatory requirements  ERCOT Board/PUCT Directive  *(please select ONLY ONE – if more than one apply, please select the ONE that is most relevant)* | |
| Justification of Reason for Revision and Market Impacts | | As required by 16 TAC § 25.101(b)(3)(A)(i), as amended in PUCT Project No. 53403, ERCOT, in consultation with PUCT Staff, must develop a congestion cost savings test to be used in economic project evaluation. ERCOT retained Energy + Environmental Economics, Inc. (E3) to identify a set of viable options and provide recommendations of the most suitable congestion cost savings test based on the ERCOT market structure. E3 presented its work at the September 2023 Planning Working Group (PLWG) meeting and recommended system-wide energy cost reduction (referred to in E3’s analysis as a “System-Wide Gross Load Cost” test) as the most suitable congestion cost savings test for the ERCOT Region. ERCOT worked with PUCT Staff to review the E3 recommendation, considered stakeholder feedback, and agreed with E3’s recommendation. This NPRR incorporates the recommended congestion cost savings test in ERCOT’s economic project evaluation. | |

|  |  |
| --- | --- |
| Sponsor | |
| Name | Ping Yan |
| atE-mail Address | [Ping.Yan@ercot.com](mailto:Ping.Yan@ercot.com) |
| Company | ERCOT |
| Phone Number | 512-248-4153 |
| Cell Number |  |
| Market Segment | Not Applicable |

|  |  |
| --- | --- |
| **Market Rules Staff Contact** | |
| **Name** | Jordan Troublefield |
| **E-Mail Address** | [Jordan.Troublefield@ercot.com](mailto:Jordan.Troublefield@ercot.com) |
| **Phone Number** | 512-248-6521 |

|  |
| --- |
| **Market Rules Notes** |

Please note that the following NPRR(s) also propose revisions Section 3.11.2:

* NPRR1070, Planning Criteria for GTC Exit Solutions

|  |
| --- |
| Proposed Protocol Language Revision |

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 over the expected life of 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. From a practical standpoint, it is not feasible to perform this production cost simulation for the entire 30 to 40 year expected life of the project. Therefore, the production costs are projected over the period for which a simulation is feasible and a qualitative assessment is made of whether the factors driving the production cost savings due to the project can reasonably be expected to continue. If so, 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.

|  |
| --- |
| ***[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 over the expected life of 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. From a practical standpoint, it is not feasible to perform this production cost simulation for the entire 30 to 40 year expected life of the project. Therefore, the production costs are projected over the period for which a simulation is feasible and a qualitative assessment is made of whether the factors driving the production cost savings due to the project can reasonably be expected to continue. If so, 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 over the expected life of the project. Outputs from the same market simulation described in paragraph (5) 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.