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| NPRR Number | [1286](https://www.ercot.com/mktrules/issues/NPRR1286#summary) | NPRR Title | Establish Multi-Value Criteria for Resiliency-Related Transmission Project Evaluation |
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| Date | | September 19, 2025 | |
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| Comments |

TIEC files these comments on top of ERCOT’s comments from August 22, 2025. TIEC recommends adjusting the treatment of economic projects to accurately consider the benefit that each resiliency project provides.

Currently, the language in paragraphs (7)(c) and (7)(d) creates a “resiliency-plus factor,” allowing ERCOT to endorse projects that address a resiliency issue identified in the Grid Reliability and Resiliency Assessment (GRRA) that fail one of the economic analyses by 10% or less. Notably, this approach is arbitrary because it does not represent the actual value that the project provides to the system. Instead, the proposed language assigns a value to the benefit that a resiliency project provides based on the revenue requirement for the project. This is problematic because it will over-emphasize the reliability benefit of an expensive project and under-emphasize the benefit of a low-cost project, even if the end-result is identical from a resiliency perspective. For example, in the 2024 GRRA, one of the hurricane scenario solutions involves hardening specific substations. Assume there are two potential projects that both include hardening the same specific substation as a part of a line reconductoring/rebuild, among other things, but one costs $100 million and the other costs $1 billion. Addressing the resiliency issue is worth $10 million in one scenario and $100 million in the other but, under either scenario, the system would only receive the benefit of a hardened substation.

Instead of basing the value of a resiliency project on an arbitrary percentage of the project’s revenue requirement, ERCOT should consider the resiliency benefit a project provides. This can be calculated by multiplying the probability of the particular resiliency event occurring and the impact of such an event (either to production costs of the system or costs to consumers). For instance, if hardening a substation helps avoid a 10 hour 50 MW outage that has a 1-in-100 chance of occurring, the project would have a resiliency benefit to consumers of $25,000[[1]](#footnote-1). Notably, this approach treats potential resiliency solutions in a consistent manner, where solving a resiliency issue will have the same value, regardless of how the project achieves that goal. Additionally, this approach avoids forcing ERCOT to inadvertently endorse a costly, low-probability tail event by taking into account the probability of resiliency event.

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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 the relative value of alternative improvements based on established reliability, economic, and multi-value criteria.

(2) The reliability criteria are established by the Planning Guide, Operating Guides, and the North American Electric Reliability Corporation (NERC) Reliability Standards.

(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 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. ERCOT will publish requested non-confidential modeling inputs, assumptions, and outputs utilized in the production cost savings test if that information can be feasibly 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. ERCOT will publish requested non-confidential modeling inputs, assumptions, and outputs utilized in the congestion cost savings test if that information can be feasibly provided.

(7) To meet multi-value criteria, a project submitted as a reliability or economic project must, both, address a resiliency issue identified in a Grid Reliability and Resiliency Assessment (GRRA) required by Planning Guide Section 3.1.1.6, Grid Reliability and Resiliency Assessment (GRRA), and meet at least one of the below criteria, as demonstrated using the cases published in the Regional Transmission Plan:

(a) Prevent thermal loading above 90% of the applicable ratings for planning events in which non-consequential load loss is prohibited as established by the Planning Guide and NERC Reliability Standards;

(b) Prevent voltage levels from getting below the low voltage limits plus 0.05 or above the high voltage limits minus 0.01 per unit for planning events in which non-consequential load loss is prohibited as established by the Planning Guide and NERC Reliability Standards;

(c) Result in levelized ERCOT-wide annual production cost savings of the first-year annual revenue requirement of the combined project (i.e., the cost of the economic project and any additional cost to achieve the resiliency benefit) after including the resiliency benefit the project provides. A project’s resiliency-benefit is calculated by multiplying the probability of a particular resiliency event occurring, and the production cost-impact of the resiliency event; or

(d) Result in levelized system-wide consumer energy cost reduction of the average of the first three years’ annual revenue requirement of the combined project (i.e., the cost of the economic project and any additional cost to achieve the resiliency benefit) after including the resiliency benefit the project provides. A project’s resiliency-benefit is calculated by multiplying the probability of a particular resiliency event occurring, and the consumer cost-impact of the resiliency event.

1. This was calculated by multiplying (i) the outage (500 MWh), (ii) the Real-Time Value of Lost Load (VOLL) ($5,000/MWh), and (iii) the probability of the event (0.01). [↑](#footnote-ref-1)