

Cost Allocation for Reliability Projects Under the NYISO Planning Process

ESPWG Meeting

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Scope of Study

- Only regulated transmission projects that address reliability needs recognized under NYISO planning process are considered in the cost allocation process
- Market is first given an opportunity to respond

Major Steps in Determining Beneficiaries

1. TOs that have the need are primarily targeted
2. Other TOs that receive reliability benefits are also targeted among those that are identified to result in
 - Significant offloading of parallel facilities and substantial deferred capital investment
 - This addresses the free rider issue

Line De-loading Approach for Determining Beneficiaries

- The NYISO establishes a need through the planning process
 - A project responding to this need taken as an input and triggers the cost allocation process
- Net benefits are determined by zones defined by TO transmission line ownership
- Net percentage de-loading of existing lines considered as a measure of benefit
 - Increased loading considered an impact

Line De-loading Approach for Determining Beneficiaries

- Net beneficiaries may initially be identified among TOs whose lines are significantly affected
 - Existing lines with flows greater than a threshold level prior to the new line
 - Flow changes greater than some minimum cutoff percentage
 - Flow changes compare the “before” system model that exhibits the reliability problem and the “after” model that addresses it
 - If the reliability violation is due to a contingency condition, the before model is the model with the contingency
- Then, only those TOs that would have meaningful and substantial deferred capital investments may finally be identified as beneficiaries

Study Results

- TOs retained PTI to run some cases based on a 2008 model system
 - It was assumed that generation had already been optimally dispatched by the NYISO, subject to reliability constraints, and did not resolve the identified reliability problem
 - Results were generally consistent with the concept that some incremental benefits might be determined based on an incremental flow changes (de-loading) approach
 - Method might be useful for addressing reliability problems that result in incremental changes to the transmission system

Study Results

- Results for cases that addressed reliability issues within the territory of the TO with the need
 - Off-loading beneficiaries included the TO with the need and, at most, direct neighbors
- Results for a case addressing an upgrade that added to the NYC import capability needed for meeting its locational capacity requirement
 - Offloading beneficiaries were near, but outside, NYC
- Results for a major upgrade adding 2000 MW of transfer capacity upstate to NYC and LI
 - Major off-loading beneficiaries were far from NYC and LI
 - The method may not address extreme cases consisting of major and extended upgrades

Conclusions

- This method does not work for all cases studied
- It therefore cannot serve as a stand-alone method to determine beneficiaries in a beneficiaries-pay methodology
- It does appear useful as a tool to address the free rider issue
- It appears that it may be used as one tool within an over-reaching beneficiaries pay methodology
- TOs will continue to work on the complete process for allocating costs under the beneficiaries pay methodology