

Injection / Withdrawal CARP Decisions

Note: To inform the RECB Stakeholders at their upcoming September 30th meeting, this version of the Decision Tree contains the decisions made by CARP (in bold/italics) at its September 24-25, 2009 meeting along with comments pertinent to the decision. The noted comments found below are my understanding of the discussion points and have not been reviewed or approved by the entire CARP group. –Marya White

A. Background

In order to proceed with decision making on whether the injection / withdrawal approach is the desired path forward, interim decisions must be made on how the injection / withdrawal method could be defined in the footprint. These interim decisions will allow the Midwest ISO to provide a comprehensive impact analysis for a “go/no-go” decision on the method as well as the basis for any iteration that may be necessary around the design itself.

Most decisions are largely independent of the others – for example you if you choose option A for the first decision, it does not limit your selection in the second decision. However, your selections may be used in combination to balance the total impacts to generators or load. The sum total of these decisions will reveal the total potential impact and benefits of the injection withdrawal method.

For each decision, the Midwest ISO will provide a qualitative assessment of the pros and cons of each selection. This qualitative discussion will help focus on the policy implications which underlie the decisions. In addition, the Midwest ISO will provide some analysis of theoretical impacts to costs and rates. Keep in mind that any numerical data is based on a number of estimates and should be considered directional rather than an absolute numeric forecast. Where provided, the numerical analysis by zone will seek to provide impacts to the zone.

Finally, note that we have tried to capture the major decision points here to help define the method. There will be any number of design decisions to be considered should this proposal be selected for implementation. One of the most important of these design questions, which should be addressed immediately after the method is selected is that of the inclusion criteria. Today, a project must meet certain criteria to move into Appendix A and be shared in a manner other than the local load paying for it. Some type of criteria must be applied to identify those project costs or partial costs which are eligible to be treated under the Injection / Withdrawal method as defined. An additional high priority question to be addressed will be the question of funding: who pays up front for these?

B. Key Definitions

Local – local charges are those that would be applied within a specific zone. These zones are the current pricing zones which conceptually represent the various Transmission Owning members of the footprint. Note that a utility may have some portion of its generation or load outside its pricing zone, or vice versa.

Regional – Charges which are applied footprint wide, as well as to imports, exports and wheel-throughs.

External – Charges which are only applied to external transactions (i.e. imports, exports and wheel-throughs)

Subregional – Charges which are applied to a subset of the footprint, such as to the Midwest ISO East, West and Central Planning zones

Access – a charge based on capacity

Usage – a charge based on energy

Incremental Transmission – the revenue requirement for any transmission project not yet approved in Appendix A as of the effective date of the FERC order which would approve this method. Conceptually, this would mean it would mean transmission projects recommended for Appendix A beginning with MTEP 2009.

Embedded Transmission - the revenue requirements for all transmission in Attachment O (including the RECB projects in schedule 26) less any Incremental Transmission

Incremental Generation – new generation additions to the system

Incremental Load – new load which necessitates additions to the transmission system

C. Regional Layer

All decisions for this section should be made as if they will only be applied to Incremental Transmission. The question of what, if any embedded transmission should be included is left to item 'F' below.

- 1) Should the Regional layer be assigned to both Generation and Load
 - a. **Yes**
 - b. No
- 2) Should the Regional layer be assigned to Incremental generation or all generation
 - a. Incremental
 - b. **All**

Note: CARP decided that all generation must be included in order to have a level playing field and not provide either existing or incremental generators an undue market preference.

- 3) If the answer to C.2.a is Incremental, should the incremental generator be charged the existing rate or the higher of existing / incremental. (In answering, consider what the rationale would be to treat incremental generators different than existing generation)
 - a. Existing
 - b. Higher of

Note: This question did not need answering since question C.2 was not "a. incremental".

- 4) On what basis should the Regional layer be allocated

- a. Access
- b. Usage**
- c. A combination thereof

Note: This question garnered much discussion and careful consideration. CARP first had to assume that the “correct” regional costs were allocated “correctly”. CARP concluded that for regional projects, allocation based on usage was more applicable as it is more flexible as to the locations of generator and load and charges those who use the transmission system in the region.

- 5) If the answer to C.4 is (a) or (c) then, should generation be charged on nameplate value or some other value such as its capacity contribution as defined under Module E (in answering, consider what the rationale would be to not charge energy resources and merchant generation that was not registered as a capacity resource in module E)
- i) Nameplate
 - ii) Module E capacity contribution

Note: This question did not need answering since question C.4 was not either “a. Access” or “c. A combination thereof.”

- 6) What is the method to determine which facilities or groups of facilities should be assigned to a layer?
- a. Voltage and Location (Note: the “and Location” was added to this answer)**
 - b. Revenue requirement based on “usage”
 - c. Revenue requirement based on “usage” and voltage combination
 - d. Revenue requirement based on “usage”, voltage and location combination**
 - e. Allow the option of petition to restate the project to a regional project based on power flows and other characteristics.**

Note: CARP concluded that it could not choose one option without more information so chose two options and asked MISO to analyze these two and provide information for the October CARP meeting. CARP also added the “e” option, which is included no matter which other option is chosen by CARP once it reviews MISO’s forthcoming information.

CARP added a question and answer 7, as a follow-up once question 6 is answered:

1.1) If the different levels are determined by voltage, then the following voltages should be in the following levels:

- above 345kV should be considered as regional projects
- 345kV should be considered as subregional projects
- below 345kV should be considered as local projects

As a “safety valve”, projects at the 345kV level should be evaluated in each subregion to ascertain that voltage levels usage, with the potential of reassigning 345kV projects based on usage characteristics and power flows, etc.

D. Subregional Layer

All decisions for this section should be made as if they will only be applied to Incremental Transmission. The question of what, if any embedded transmission should be included is left to item ‘F’ below.

- 1) Should one or more Subregional Layers be added?
- a. Yes**
 - b. No

Note: CARP analyzed the regional and local layers prior to focusing on the subregional layer in case the regional and local layer decisions addressed all types of projects such that a subregional layer was not needed. CARP decided that a subregional layer was beneficial for a number of reasons:

- subregional can bridge footprint-wide regional projects and local pricing zone projects.
- may accommodate special subregional efforts such as UMTDI
- may be able to have more than one different subregional levels (over different subregional footprints) to accomplish different goals.

- 2) If the answer to D.1 is (a), then what should define the Subregional Layer
- a. **Geography (i.e. the three Midwest ISO Planning Regions)**
 - b. Something else (CARP must define)

Note: CARP concluded that the eastern planning region should continue to include First Energy and that the western planning region should include MidAmerican. Once MISO's models are reviewed, CARP may give thought to considering western Montana and the Dakotas as its own subregion as these States would be primarily exporters to the rest of the footprint.

- 3) Should the Subregional layer be assigned to both Generation and Load
- a. **Yes**
 - b. No
- 4) Should the Subregional Layer be charged to all generators or incremental generators? (in answering, consider what the rationale would be to treat incremental generators different than existing generation)
- a. **All**
 - b. Incremental

Note: For the same region as the regional question above.

- 5) On what basis should the Subregional Layer be allocated
- a. Access
 - b. Usage
 - c. **A 50/50 combination of Access and Usage**

Note: CARP decided on both Access and Usage in order to bridge the regional project, allocated on usage, and the local projects, allocated on access (see below.) Since CARP had no information to define a split, it used 50/50.

- 6) If the answer to D.5 is (a) or (c) then, should generation be charged on nameplate value or some other value such as its capacity contribution as defined under Module E (in answering, consider what the rationale would be to not charge energy resources and merchant generation that was not registered as a capacity resource in module E)
- i.) **net demonstrated capability and/or declared maximum capacity**
 - ii) accredited capability such as Module E capacity contribution

Note: CARP changes the options to this question for both the subregional and local levels and chose revised option "i".

Note: Question 7 was deleted from this list as it will be answered, along with its regional and local counterparts, once MISO provides further information (see regional questions 6 and 7 above.)

E. Local Layer

- 1) Should the revenue requirement for facilities built in a pricing zone to serve the local layer be assigned to both Generation and Load?
 - a. **Yes**
 - b. No

Note: CARP had questions regarding the wording of the question so provided more specifics to facilitate the answer.

- 2) Should direct interconnections be left as direct assigned to the interconnected generator(s)?
 - a. **Yes**
 - b. No

Note: CARP noted that over time the usage of direct interconnection facilities may change to prompt a reassessment of this direct assignment

- 3) If E.1 is (a), then should the Local layer be charged to all generators or incremental generators?
 - a. **All**
 - b. Incremental
- 4) If E.1 is (a), then what rate should generators pay for Network Upgrades identified through the interconnection process that are assigned to the Local Layer? (in answering, consider what the rationale would be to treat incremental generators different than existing generation)
 - a. Embedded rate
 - b. **Higher of the embedded or incremental rate**

Note: MISO pointed out that looking at the higher of embedded or incremental costs would incent generators to first seek available capacity for siting a project, rather than site a generation project where the generator wants, which could prompt having to build new facilities to interconnect that generator. CARP notes that the “first mover” and “free rider” issue still needs to be addressed through some type of mechanism to provide credits back to the parties who paid for the construction of incremental transmission to serve generators.

- 5) On what basis should the Local layer be allocated
 - a. **Access**
 - b. Usage
 - c. A combination of Access and Usage

Note: Local projects were designed and built to serve local needs. As such, other parts of the footprint may not be impacted by local projects, such that usage allocation would be more appropriate.

- 6) If the answer to E.5 is (a) or (c) then, should generation be charged on nameplate value or some other value such as its capacity contribution as defined under Module E (in answering, consider what the rationale would be to not charge energy resources and merchant generation that was not registered as a capacity resource in module E)
 - a) **net demonstrated capability and/or declared maximum capacity**
 - b) accredited capability such as Module E capacity contribution

- 7) If the answer to E.5 is (a) or (c) then should load be charged 12 month average coincident peak or something else such as absolute annual peak or a 4 CP calculation

- a. 12 CP
- b. 4CP
- c. Annual Peak

Note: Question no. 7 was added. CARP discussed this at length and determined that using the current method of 12 coincident peaks should be continued as it reduces year-to-year volatility.

F. Existing Costs –Note: CARP reserved these questions until more information is received from MISO regarding the value of existing transmission plant.

- 1) Should existing costs be included or excluded from the Regional Layer
 - a. Included
 - b. Excluded
- 2) Should existing costs be included or excluded from the sub- Regional Layer
 - a. Included
 - b. excluded
- 3) If the answer to F.1 or F.2 is (a), then should the costs be transitioned in over time, or assigned the new methodology on Day 1
 - a. Transition / Phase In
 - b. Big Bang