Risk/Reward Group
Preliminary Survey Response Summary
Analytical Framework
Work Plan

Grid West Regional Representatives Group

February 24, 2005

Overview

- review work plan
- review analytical framework
- review limitations, clarifications, other initiatives and expectations
- review survey process and method
- review preliminary survey results (select responses)

Risk/Reward Group Work Plan Review (June 2004)

1. *Enumerate and document the problems and opportunities* identified by the RRG (see September '03 document)
2. Determine which problems are likely to be solved/relieved by the proposed design
3. *Review previous NW cost/benefit studies* for applicability to current effort – identify costs and benefits that can be pulled forward from these studies. (e.g., IndeGO study, RTO West studies)
4. *Develop estimated cost (or cost range) of implementation.* (TSLG and the Pricing Workgroup efforts; PPC's RTO operations cost comparison; associate functionality with implementation costs)
5. Determine/*document the unquantifiable benefits*/risks/rewards.
6. *Incorporate results from the Consolidated Control Area* assessment efforts (associated benefits and costs)
7. To the extent possible, combine results, cross-reference with TSLG/Structure Group results, and derive reasonable ranges for estimating net quantifiable benefits. *Express results as a range of potential benefits in a matrix format*.

Work Plan Going Forward

- Survey Response Follow-up
  - Purpose: to gather additional detail and/or data on questions that evoked strong responses in categories where problems appear to have the greatest impacts
  - Identify ways to address problem without adversely impacting others
  - Share results with other work groups
- Begin work on Analytical Framework white papers
- Synchronize efforts with TSLG and CCA assessment activities

Analytical Framework

- Matrix Format
  - Presentation of high-level, summary information from white papers

- White Papers (Outline Template)
  - Problem Statement
  - Baseline Description: status quo with known and measurable changes
  - Potential CCA Approach or GW Approach (Basic Features)
  - Potential Alternative Approaches (Descriptive rather than analytical)
  - Analytical Questions Affecting Results
  - Related Efforts
  - Analysis Design/Performed (including range assumptions)
  - Potential Wealth Transfer Impacts (range)
  - Economic and Qualitative Benefits (range)

Limitations, Clarifications and Other Initiatives and Expectations

- Limitation: RnR group will perform no new production cost simulations prior to Decision Point 2
- Limitation: Assessment will focus on expected risks and rewards to the region as a whole – wealth transfers (cost shifts) will be assessed prior to Decision Point 4
- Limitation: R/R will identify (but not analyze) “risk factors”
- Clarification: Qualification of benefits, e.g. “societal benefits”, “wealth transfers”
- Other Initiatives: Continue researching unmeasurable benefits and costs

Expectations?

Survey Background

- Risk/Reward Work Plan Item 1

  "Enumerate and document the problems and opportunities identified by the RRG"

- Problems and Opportunities Analytical Matrix
  - 7 major categories identified
  - Reformatted into a survey
- Draft Survey Instrument Developed
  - 35 questions developed
  - Reviewed by group members
  - Proposed to be conducted as a "blind survey"
  - Data elements added

Survey Process and Method

- Participant Selection
  - Stakeholders likely to have quantifiable experience
  - Diverse survey pool
  - Input from the RR workgroup
  - RRG meeting appeals
- Survey distributed in October 2004
- Survey Response Methods
  - Email distribution
  - Follow-up calls
  - Clarification of questions on request
  - Responses returned by email
- Modified Survey Request
  - Survey modified to decrease burden
    - *Initial "Scoping" of issues (waived data disclosure in first round of responses)*
    - *Follow-up for details in areas of significant, common concerns*
  - Response deadline extended

Pool of Potential Respondents

- Major Transmitting Utilities
  - Avista
  - BPA-TBL
  - BPA-PBL
  - BCTC
  - Idaho Power Co.
  - NorthWestern Energy
  - PacifiCorp
  - Portland General Electric
  - Puget Sound Energy
  - Sierra Pacific

Out of this pool of 30 potential respondents, 24 responses have been received and 4 more are expected.

If the outstanding surveys are received, we will have achieved a 93% response rate.

- Other Regional Stakeholders
  - Clark Public Utilities
  - Deseret
  - EWEB
  - ICNU
  - NIPPC (Calpine, Tractebel, TransAlta)
  - NRU
  - PNGC
  - PPL Montana
  - PPM
  - Powerex
  - PRM
  - PGP
  - PPC
  - Seattle City Light
  - Snohomish PUD
  - Tacoma Power
  - UAMPS
  - Renewable Northwest Project

Compilation of Results

- Responses grouped
  - By category/question
  - By respondent type (MTU, TDU, Generator, Marketer)
  - By response (problem/no problem)
- Range of responses summarized
  - Table of responses (Excel file)
  - Extract of representative responses

Response Summaries

- Selected from 537 Response Entries Received
- Representative of range of viewpoints expressed in responses
- Not always clear correlation with respondent types
- Factors that may affect responses:
  - Geographical location
  - Business scope (vertically integrated, load serving entity only, etc.)
  - Load/resource adequacy of respondent

Production Cost Issues

a. Impact of Pancaked Rates (23 entries)

- Marketer: "Selling to California involves 2 BPA wheels ($3.47/MWh); selling to Nevada involves 3 BPA wheels and 1 PAC wheel ($8-25/MWh); transactions using the BPA system and another generally becomes uneconomic."
- TDU: "Normally pancaked rates are invisible and 99% of our sales and purchases are within the borders of the host control area."

c. Under-utilization of Existing Transmission Facilities (17 entries)

- MTU: "There is a lot of evidence of under-utilized capacity (See SSG-WI Path Utilization Reports); Paths can be fully subscribed with long-term contracts that are not used simultaneously (in actual operation)."
- MTU: "No examples of underutilization of transmission capacity; more use out of existing facilities could be gained through new transmission service products."
- Marketer: "Would be interested in knowing whether transmission is under-utilized during periods where schedules are curtailed."

Transmission System Operational Issues

b. Inefficiencies and/or Barriers to Entry in Ancillary Services Markets (21 entries)

- Marketer: "There are barriers to entry in the Ancillary Services markets due to technical requirements, flexibility limits and inconsistent business practices/systems."
- MTU: "No awareness of barriers to entry in the AS markets."

e. Effectiveness of Dispatchers' Orders (13 entries)

- MTU: "Schedule cuts have been requested by other systems without any impact on congestion and without re-instating the schedules."
- MTU: "Respondent is unaware of any dispatch orders that failed to provide relief when followed."

System Capability and Scope

b. Parallel Flow Effects on Transmission (21 entries)

- MTU: “Problems include but are not limited to: curtailments, reduction of generation levels and voltage problems resulting from unscheduled flow from outside our control area.”
- TDU: “Parallel flows may be an issue, but they are never an issue for us delivering low cost Federal Generation to our loads.”
- TP: “Losses are increased by parallel flows through respondent’s transmission line. Incremental losses on the last 100 MW is 8-9%. Respondent must make up for lost energy due to loop flow.”

d. TTC/ATC Determination (16 entries)

- Marketer: “ATC is poorly coordinated between adjacent control areas; the southwest ties are particularly problematic. Some Transmission Providers don’t post ATC which results in a lack of transparency.”
- MTU: “We are not aware of problems with ATC calculations.”
- MTU: “Recent implementation of a flow-based ATC determination methodology by a major transmission provider has hindered the ability to obtain firm transmission service across portions of their system where, under a contract-path approach recognizing scheduling constraints, firm transmission would likely be available.”

Management of Constraints

Transmission Providers (MTU)

- Postings are updated as frequently as once every 5 minutes by one respondent, others post once per day.
- Ratings have been reduced substantially since 1996.
- Curtailments are usually caused by unscheduled parallel flows that result in line reaching limit.
- Derates have negligible impact on wheeling revenues.
- Data on schedule limits and curtailments were provided by some.
- Most do not have information needed to compute economic cost.
- Information is considered "commercially sensitive."

Transmission Customers

- Marketer: 20-30 paths around the west that impact desired transactions.
- TDU: "We have not been affected by flowgates or posted paths." "Not an issue"
- Marketer: "Real-time curtailments on the John Day – COB are too numerous to gather."
- MTU/LSE: existing rights cannot be redirected without congestion
- MTU/LSE: Commercial constraints on paths are inhibiting the LSE's ability to acquire desired long term firm transmission.
- GEN: For all restricted paths we either have to reroute energy, buy behind, sell in a cheaper market or redispatch resources to move energy to load/market.

Treatment of Generators and Loads

a. Non-comparable Treatment of Reactive Power (12 entries)
   - Marketer: "Until recently, [Transmission Provider] has opposed compensating independent generators of reactive support while paying [its affiliate] for very similar service. Even now, the payment to generators seems arbitrary."
   - MTU: "We don't have any examples of non-comparable treatment with generation-supplied reactive power."
   - It is apparent that the allocation methodology used by [Transmission Provider] to determine the amount of generation-related costs allocated to Generation Supplied Reactive and Voltage Control produces an overstated allocation.

b. Non-comparable Treatment of RAS (10 entries)
   - Marketer: "Several generators are not required to have RAS yet they are equally situated to provide grid relief. Current practice appears to be installation of RAS only on new units."
   - MTU: "We don't have any examples of non-comparable treatment with RAS."

Tariff and Business Practice Issues

a. Economic Inefficiencies Caused by Tariff and Business Practice Confusion (15 entries)
   - Marketer: "We have voiced complaints against transmission providers regarding business practice and tariff issues (FERC hotline, arbitration (NRTA, WRTA, WECC), FERC mediation and formal complaints)."
   - MTU: "We have no examples of how confusion over tariff language, etc. has resulted in economic inefficiencies."
   - Marketer: "Business Practices should be (but often are not) written to support the intent of the tariff rather than to accommodate system flaws."

b. Pancaked Administrative Processes (11 entries)
   - Marketer: "[Transmission Provider] doesn't operate a functional OASIS site; it relies upon verbal communication that underutilizes ATC."
   - TDU: "We have been unaffected by pancaking or multiple administrative processes."

f. Timeliness of System Impact Studies (9 entries)
   - MTU: "We have four examples of circumstances where SIS or Facilities Studies not timely completed resulted in declined service. In two of these cases, lost revenues resulted."
   - Marketer: "We have not experienced any problems in this area."

Planning and Expansion Concerns

a. Consideration of Congestion Costs in Investment Decisions (16 entries)

- MTU: "Without the ability to purchase adequate transmission; utilities are forced to serve load with local resources even though there is little fuel diversity as a result."
- TDU: "We have no vested interest in system planning."
  "We have not experienced any problems in this area."
- MTU: "Because there is no congestion management system in place to cost congestion, schedules are cut or denied to maintain reliable operation and costs are internalized."

b. Allocation of Costs and Benefits (15 entries)

- TDU: "There is an ongoing disagreement among entities in the Puget Sound Area over the solution and cost allocation of maintaining adequate transmission capacity on the Northern Intertie."
- MTU: "The present system of transmission planning is done primarily on an individual control area basis, with only limited regional coordination. Examples of the much-acknowledged reasons for lagging transmission infrastructure investment include inconsistently adopted and applied development criteria, unclear cost recovery mechanisms, and unknown effects from parallel system operation."
- TDU: "We have not experienced any problems in this area."
- MTU: "We have no examples of how uncertainty about cost/benefit allocation has impacted investment decisions, however, funding responsibilities typically fall on generation owners/purchasers."