



**FERC Order 1000  
Strike Team Updates  
March 20, 2012**



**FERC Order 1000**  
**Governance Strike Team Update**  
**IMC Meeting**  
**March 20, 2012**

Bob Smith  
APS



## ➤ Agenda

- Assignments
- Status
- Straw Proposal
- March 7, 2012 Call
- Planning Asset Management Proposed Structure
- IMC Discussion on States Role
- Recommend Committee Structure to IMC for approval to proceed pending stakeholder input



# Governance Strike Team Assignments

- Develop WestConnect Committee Structure for O1K Compliance
- Determine appropriate stakeholder involvement in decision making for committees
- Determine decision making processes for committees
- Develop framework for governance documents



# Governance Strike Team Status

- Monthly meetings via webinar
  - 1<sup>st</sup> Wednesday of each month, 2-4 pm MST
- Work to date
  - Review existing governance structures
    - RTOs (CAISO, SPP, MISO in detail)
    - WECC
    - NTTG and Columbia Grid
  - Discuss stakeholder involvement
    - Role of states
  - Draft Straw Proposal for committee structure



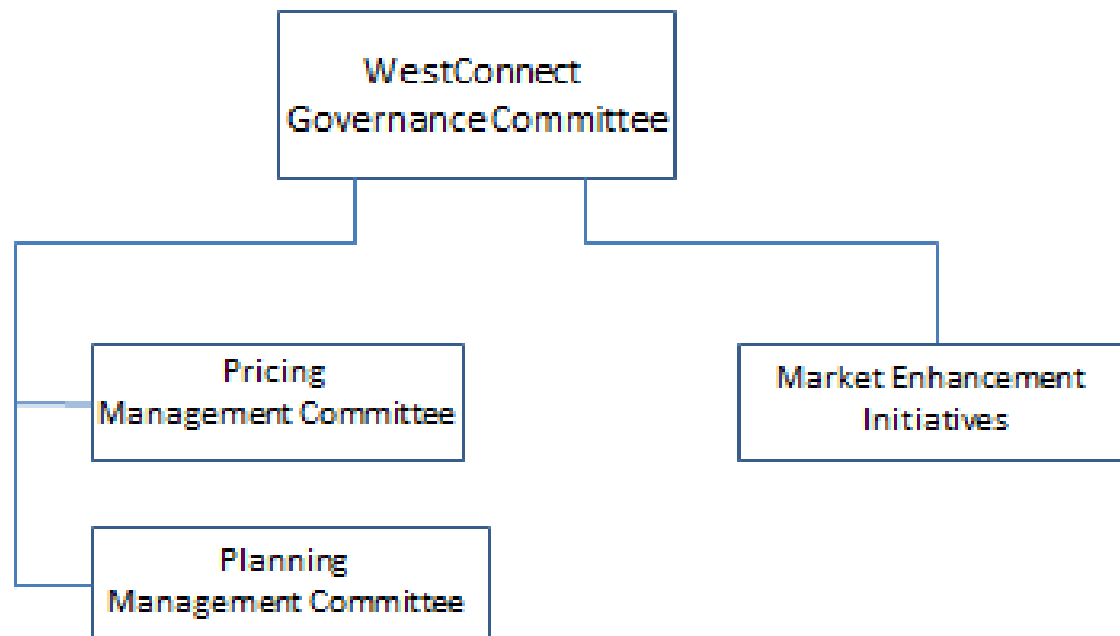
# Governance Strike Team Status

- Thinking to date:
  - Like the NTTG Structure
  - Open to all stakeholder involvement
  - Having difficulty agreeing on appropriate role for states
    - States want meaningful voting status
    - Some WC members prefer states to have advisory role
  - Need separate committee or sub-committee with cost allocation determination responsibility



- Draft Straw Proposal

Straw Proposal  
WestConnect Organizational Structure





## March 7, 2012 Call

- Role of the States in the IMC
  - Held two calls
  - Options discussed
    - Add 5 states for total of 22 votes. Require 18 votes to approve (minimum of one state vote)
    - Three voting classes (States, jurisdictionals, non-jurisdictionals). Require two of three classes to approve
  - Failed to develop recommendation to IMC





## March 7, 2012 Call

- Role of Independent Transmission Companies
  - Parallel discussion in Planning Strike Team
  - Should WC (Governance Committee) membership criteria be modified?
    - Current requirement - mileage of transmission contiguous with WC
    - Other criteria for mileage?
    - Other criteria for location?
  - Should there be fees for non-WC member to submit projects for study



## March 7, 2012 Call

- Discussion of Governance Straw Proposal
  - Governance Committee
    - Oversight of WC initiatives
    - Oversight of FERC Order 1000 compliant planning process
    - Oversight of budget for consultants and WC staff
    - If we open WC Governance Committee to other entities (Independent Transmission Companies), what is criteria for membership and what is financial contribution

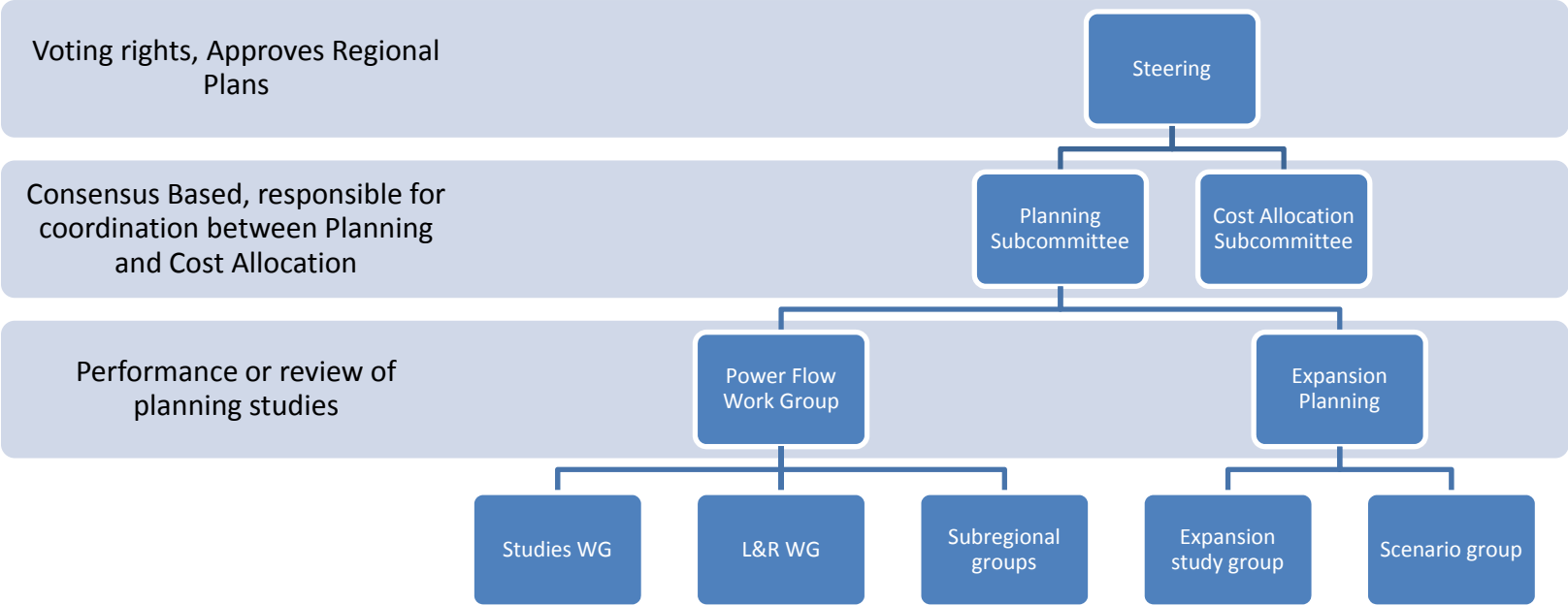


## March 7, 2012 Call

- Discussion of Governance Straw Proposal
  - Planning Management Committee
    - Develops and Approves Regional Plan
    - Develops budget and submits to Governance Committee for approval
    - Determines cost allocation
    - Open to all stakeholders
    - Membership classes
    - Financial contributions from non-WC members?



- Planning Asset Management (PAM)





- Discussion of Straw Proposal for Governance
  - Small team unable to develop recommendation
  - States want meaningful voting status
  - Conduct straw poll of IMC members?
  - Further action?



- Recommendation to IMC for Committee Structure
  - Request approval subject to review of stakeholder input
  - WC Governance Committee
    - Determines and approves WC budgets
    - Manages and approves WC expenses
    - Provides oversight of initiatives and FERC Order 1000 compliant planning process



- Recommendation to IMC for Committee Structure
  - Planning Management Committee (PMC)
    - PAM alternative name
    - Develops and approves regional plan
    - Determines projects included in regional plan for regional cost allocation
    - Determines cost allocation
    - Performs studies (reliability and economic)
    - Selects project developer



## Contact Information

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Questions?





**FERC Order 1000**  
**Planning Strike Team Update**  
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**March 20, 2012**

Sue Henderson  
Xcel Energy



## Planning Strike Team Goal & Meetings

- Goal
  - Evaluate and propose recommendations to IMC on meeting FERC Order 1000 planning requirements
- Subsequent Meetings
  - 2/3/2011
  - 2/24/2012
  - 3/9/2012
  - 3/19/2012 (in-person)
  - Intermittent data/document exchanges between meetings
- Future Meetings:
  - 3/30/2012
  - Weekly / Every Two Weeks – as needed

Data Analysis & Assumptions  
(2-27-2012)

- Non-wire solutions (Jeff Hein)
- Public Policy (Rebecca Wagner, Steve Ellenbecker)
- Consistent Data (Bob Easton)

Project Identification  
(3-12-2012)

- Project Reevaluation and subject to rules (Matt Haag & Eric Egge)
- Qualification criteria to propose project (Sue Henderson & Eric Egge)

Analysis  
(2-27-2012)

- Criteria to evaluate projects (Steve Cobb, LeeAnn Torkelson & Jeff Hein)

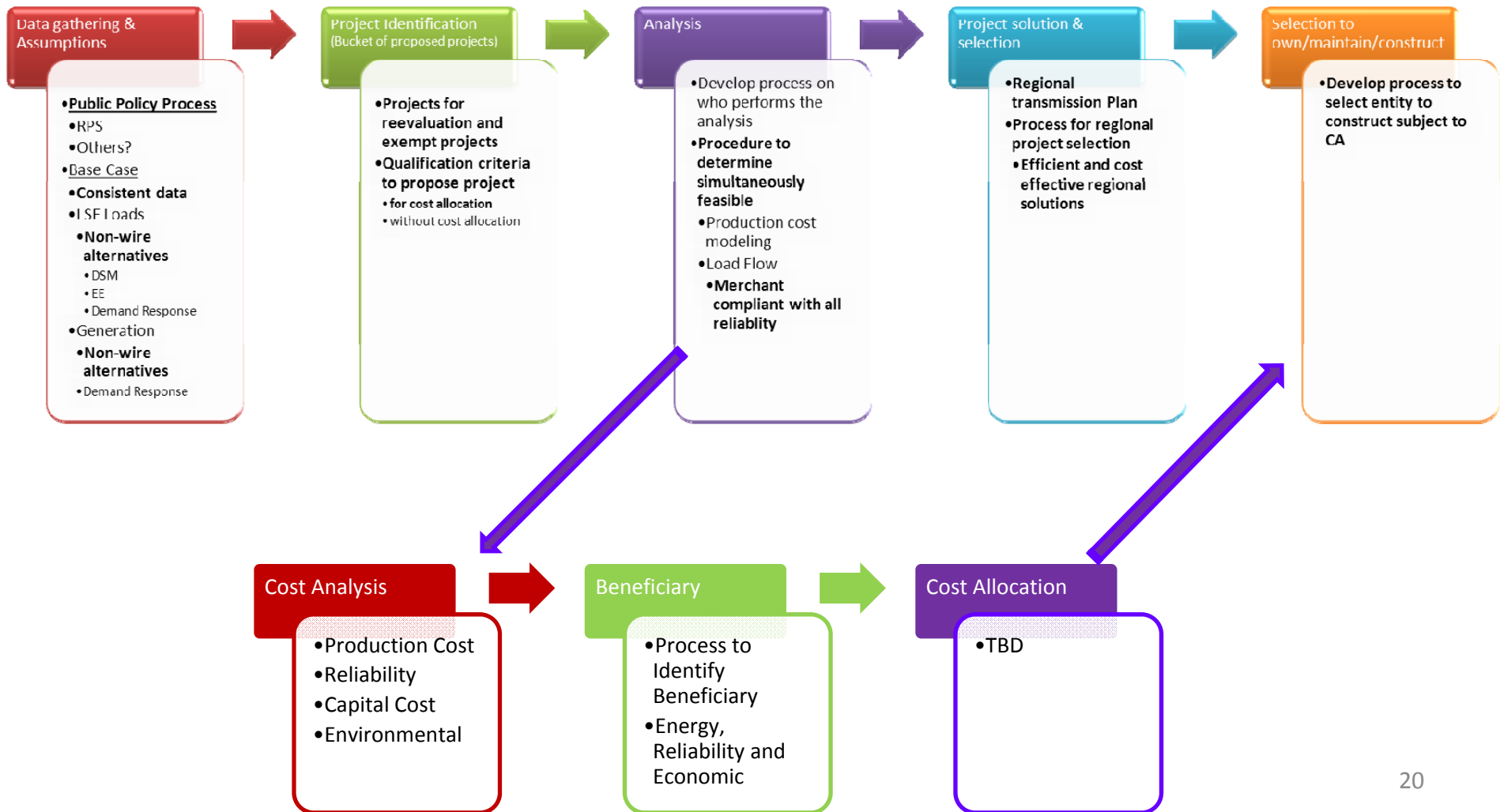
Project Solution and Selection  
(3-19-2012)

- Regional Transmission Plan (Ron Belval thru PMC)
- Process and criteria for project selection (Sue Henderson & Eric Egge)

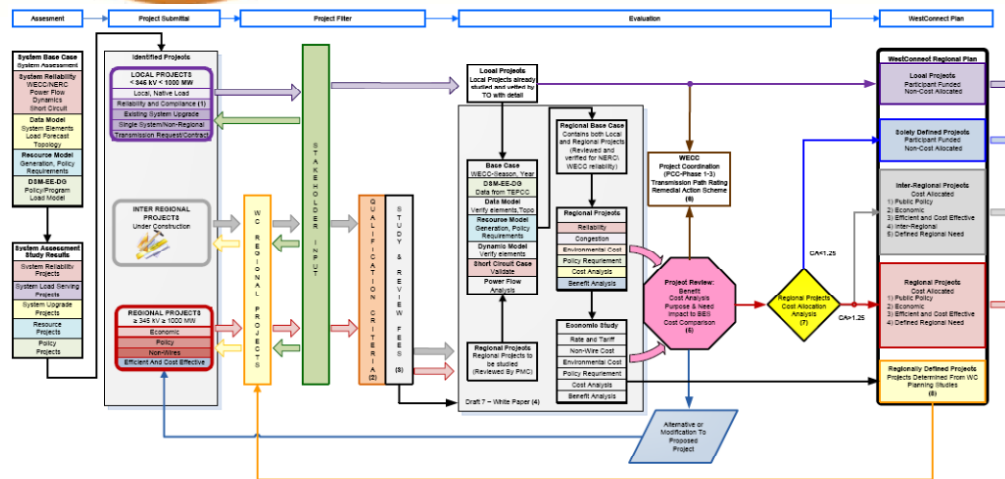
Selection to  
Own/Construct/Maintain  
(3-19-2012)

- Process to select transmission provider/developer (Sue Henderson & Matt Haag)

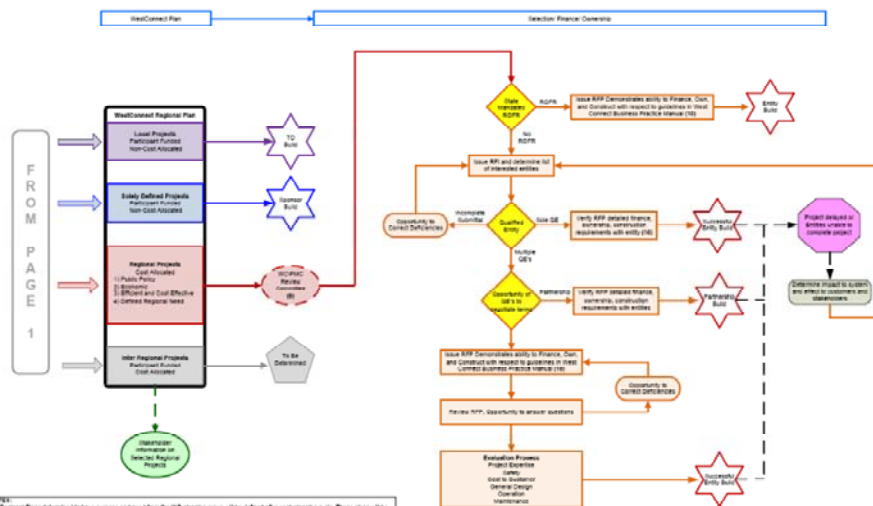
# FO1k Planning Process Diagram



# WESTCONNECT FERC ORDER 1000 Planning Process Diagram



- Time horizon is 10-year
- Process is optimized solution (not project by project analysis)
- Identifies regional reliability and congestion
- Will be the springboard for written documentation



NOTE: Regional Plans determined to have purpose and need from the DC planning process will be refined after each planning cycle. These plans will be reviewed and approved by entities responsible in processing regional projects that receive agreed claims. Regional projects will be

# Project Analysis Questions

- Who performs the analysis
- Criteria for merchant to comply with all reliability standards
- Procedure to determine simultaneously feasible
- Recommended Platforms
- Recommended Planning cycle
- Voltage or class of projects to be studied
- Regional significance criteria?

The following Recommendations are proposals from the Project Analysis team (slide 3). Some have reached consensus in PST some are still in discussion.

## Who is the WC Planning Advisors?

### Recommendation:

The WC Planning group should be 4 or fewer representatives per sub-region (CCPG, SSPG, SWAT).

### Suggested total of 10:

- (1ea) Jurisdictional, Non-Jurisdictional, Policy per SPG
- (1 ) Independent/Merchant representative

This group would make a recommendation to WestConnect (IMC? PMC?) to hire 3<sup>rd</sup> party entity.

**Still under discussion**

## Who performs Study

➤ Recommendation:

- Studies should be performed by a 3rd party which is coordinated/managed by a core WC planning group (to be developed).
- The WC planning advisors will develop the scope, bid the work, review the responses, recommend the 3rd party, and manage/monitor the work product.

**Still under discussion**

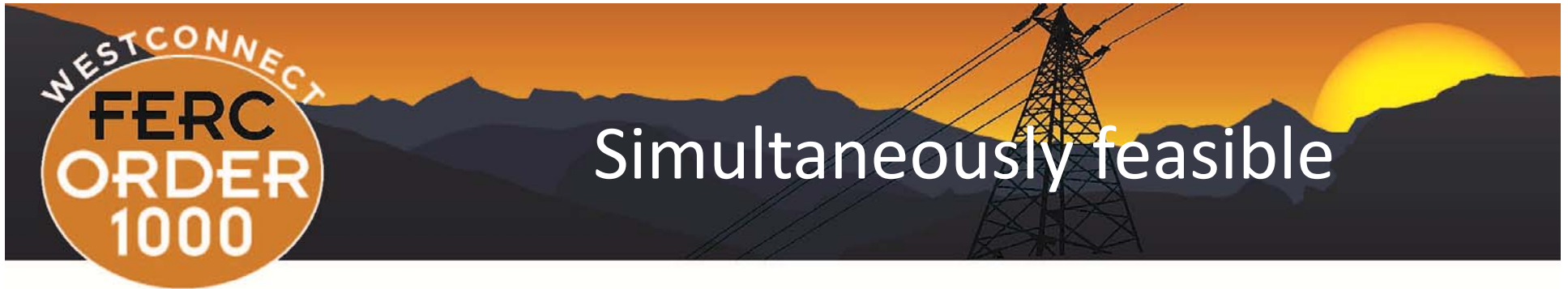




### Recommendation:

Merchant projects are subject to the same reliability standards as utility-proposed projects. Language ought to be included in the appropriate location (OATT, Business Practice, Governance docs, as examples) that indicates that the project developer will register appropriately with NERC and provide that proof of registration when the project is commercial. Project developers shall observe and comply with regional requirements as established by the RRO (i.e. the Path Rating process at WECC), as well as all State, Regional, and Federal requirements regarding siting, design, construction, operation, and maintenance of said projects.

**\*\*complete\*\***



*Recommendation:*

- No consensus on response, need to better clarify what is meant by “simultaneously feasible”.
- Original response was drafted in a project by project analysis as opposed to a scenario analysis (optimization analysis).

**Still under discussion**

## Recommended Platforms

### Recommendation:

- Power flow – GE PSLF or PTI
- Stability – GE PSLF
- Short Circuit – Aspen
- Production Cost modeling – Pro-Mod or Plexos
- Recommendations may change based on 3<sup>rd</sup> party consultant recommendations.

**\*\*complete\*\***

# Recommended Planning Cycle

## Recommendation:

- No consensus on response, need to better define what is best for WestConnect members.
- Planning cycle front-runners:
  - Biennial
  - Triennial
  - Quadrennial and/or combination

**Still under discussion**

# Criteria for regional projects to be studied

## Recommendation:

- Regional, non-local projects that are single circuit 345kV and 1000MW or higher or 230kV multi-circuit of 1500MW or higher.
- Opposing comments: Alternative proposal is “projects energized at 100kV or higher be considered regional, WC should make all efforts to make a technical determination on the true regional nature of any project.”

**Still under discussion**



*Recommendation:*

See previous slide.

**Still under discussion**



## Other Documents for Discussion

- Consistent Data
- Public Policy presentation
- Proposal Developer Selection
  - LS Power
  - Xcel Energy
- Governance
  - WestConnect governance straw proposal
  - Planning Asset Management straw proposal

The background of the slide shows a silhouette of a power transmission tower against a sunset sky with a large yellow sun. The scene is set against a range of dark mountains.

## Next Steps/Request from IMC

- Bring a final recommendation to IMC for approval
  - Public policy consideration
  - Project Analysis issues
- Work with cost allocation and governance strike team for PAM proposal
- **Request assistance from ICF to put the process diagram into a draft written document for WestConnect review (Business Practice Manual- BPM).**





## Contact Information

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## Questions?

Special thanks to project analysis team for use of their recommendation slides.



**FERC Order 1000**  
**Cost Allocation Strike Team Update**  
**IMC Meeting**  
**March 20, 2012**

Charlie Pottey  
NV Energy



## Cost Allocation Strike Team Meetings & Membership

- Kickoff Meeting – 12/5/2011
- Subsequent Meetings
  - 12/16/11, 1/6/12, 1/27/12, 2/3/12, 2/24/12, 3/5/12, 3/9/12 & 3/15/12
  - Intermittent data/document exchanges between meetings
- Future Meetings:
  - Every Week / Two Weeks – as needed
  - Next Meeting 3/30/12
- Strike Team includes approximately 40 members
  - FERC Jurisdictional and Non-Jurisdictional Utilities
  - Independent Transmission Developers
  - State Regulatory Commission Representatives



## Calculation of Reliability Benefits

- Calculation of reliability benefits will be based on required compliance with NERC TPL transmission planning standards.
- If a system is compliant with NERC TPL standards during the 10 year planning horizon they will not be allocated costs for reliability improvements.
- Systems that require transmission upgrades to comply with NERC TPL standards that can be satisfied in a more cost effective and efficient manner with a regional project will be allocated costs based on the cost of alternatives to comply with the standards.



# Calculation of Benefits for Economic Projects

- Calculation of Economic Benefits will be based on regional production cost savings.
- Hurdle rate should be calculated to ensure that, on a bilateral basis, the transactions modeled are likely to occur (including transmission rates, losses, and an adequate margin).
- Production cost analysis will need to calculate benefits for each company.
- WestConnect will establish a B/C ratio of 1.25 for a project to be considered economically-justified and receive cost allocation.
- Cost of economic projects will be allocated based on the benefits that each Company receives.



## Meeting Public Policy Requirements

- Public Policy Requirements will be included in the evaluation of reliability and economic projects.
- Public Policy Requirements, as defined by the planning process, shall be included in the system models used for the transmission system studies.
- Projects arising out of a need for transmission infrastructure to satisfy the public policy requirements shall be considered Public Policy Projects.
- The costs of these projects shall be shared with the entities that will access the resources enabled by the project in order to meet their public policy requirements.



## Combination of Benefits

- In developing the most efficient plan for the region, it is possible for the plan to jointly consider different types of benefits when approving projects for inclusion in the regional plan.
- Reliability & Economic Benefits.
- Reliability & Public Policy Benefits.
- Economic & Public Policy Benefits.
- Reliability, Economic Benefits & Public Policy Benefits.



## Single System Projects

- Single system projects that do not adversely impact neighboring systems will not be included in this procedure for cost allocation.
- The impact of single system transmission system additions will be included in the evaluation of need for regional transmission projects.





## Treatment of Uncertainty

- Results of planning studies and the calculation of benefits are dependent upon the input assumptions utilized in the analysis.
- Input assumptions require forecasts of future values and there is uncertainty concerning what actual conditions will exist in the future.
- For economic projects, a 1.25 B/C ratio provides for a margin in how the benefits are calculated and represented in system models to account for the inherent uncertainty.
- Selection for cost allocation will be based upon the degree to which benefits will actually be received by beneficiaries and the relative certainty or robustness of a project's benefits and beneficiaries.



## Treatment of Uncertainty Cont.

- Projects for which benefits and beneficiaries are highly uncertain and vary beyond reasonable parameters based on assumptions about future conditions will not be selected for cost allocation.
- Projects for which significant benefits go to parties whose agreement is required before costs can be allocated to them (e.g. parties in one region who benefit from projects in another) may be conditionally selected for cost allocation subject to those parties agreeing to pay the costs allocated to them.
- Each scenario evaluated should have a minimum B/C ratio of 1.0 with the average B/C ratio of all scenarios greater than 1.25.



## Selection of Projects for Cost Allocation

- Only projects selected in the regional transmission planning process shall be eligible for cost allocation under the WestConnect regional cost allocation process.
- Projects will be selected in the planning process based on the calculation of benefits provided by the projects compared to the cost of the project.
- Benefits will be calculated based on the type of project being evaluated.
  - Reliability Projects
  - Economic Projects
  - Public Policy Projects
  - Projects with a Combination of Benefits



## Allocation of Costs

- The WestConnect Cost allocation procedure is a function of benefit analysis.
- Cost allocation must adhere to six Cost Allocation Principles defined in FERC Order 1000.
- Cost allocation be roughly commensurate with benefits received.
- Cost Allocation will be based on the type of project.
  - Reliability Projects
  - Economic Projects
  - Public Policy Projects
  - Projects with a Combination of Benefits
  - Single System Projects



## Six FERC Cost Allocation Principles

1. Cost assignments must be commensurate with estimated benefits.
2. Those that receive no benefits must not be involuntary assigned costs.
3. Should a benefit to cost threshold be used it cannot be so high that projects with significant benefits are excluded. (Cannot be above 1.25 without FERC approval)
4. Costs must be allocated solely within the region unless other voluntarily assumes costs.
5. Cost allocation method and data must be transparent and with adequate documentation.
6. May use different cost allocation methods for different types of projects.



## Allocation of Costs for Reliability Projects

- Cost for reliability improvement projects will be allocated only to those systems that require system improvements during the 10 year planning period to comply with NERC TPL reliability standards.
- The cost allocation for this category of projects will be based on the costs that each system would have been required to incur on an individual basis to comply with the reliability standards.



## Allocation of Costs for Economic Projects

- Cost allocation for economic projects will be based on the calculation of economic benefits that each system will receive.
- Shall include a hurdle rate to ensure that, in a bilateral market, the transactions modeled are likely to occur (including, but not limited to, transmission rates, losses, and an adequate profit margin).
- Treatment of uncertainty shall include scenario analysis to ensure that benefits will actually be received by beneficiaries with relative certainty.
- For a project to be recommended for regional cost allocation it shall have a benefit to cost ratio greater than 1.0 under each reasonable scenario and an average benefit to cost ratio greater than 1.25 for all scenarios considered.
- The cost of any project that exceeds an aggregate 1.25 B/C ratio will be divided among the load-serving entities that show a benefit based on the amount of benefits calculated to each transmission owner.



# Allocation of Costs for Public Policy Projects

- Any projects arising out of a need for transmission infrastructure to satisfy the public policy requirements shall be considered Public Policy Projects.
- The costs of these projects shall be allocated to the entities that will access the resources enabled by the project in order to meet their public policy requirements.





## Allocation of Costs for Projects with a Combination of Benefits

- A transmission system addition may result in multiply categories of benefits.
- Under the WestConnect cost allocation procedure all categories of benefits shall be considered.
- The total project benefit shall be the sum of the benefits from each benefit category.



# Allocation of Costs for Single System Projects

- Single system projects are outside the scope of the WestConnect regional cost allocation procedure and are not eligible for regional cost allocation unless they provide benefits to other systems.



## Approval of Cost Allocation

- Structure of the WestConnect groups responsible for implementation of Order 1000 efforts have not been finalized but are likely to include the following functions:
- A planning committee to which projects are submitted for analysis and the evaluation of benefits.
- A cost approval committee that works with the planning committee to accept projects for cost allocation review and determines the recommended cost allocation.
- A governing committee who votes on projects and cost allocation proposals submitted by both the planning and cost allocation committees.



# Allocation of Ownership and Capacity Rights

- The ultimate ownership of a new project could take at least three forms, equity ownership, capacity ownership, or capacity contracts, or could have a mix of these three forms.
- **Independent Party Ownership**
  - The transmission facilities will be owned and operated by the independent party.
  - All costs such as permitting, right of way, construction, operation and maintenance are the independent party's responsibility.
  - The independent party will file an OATT with FERC for project costs.
  - Beneficiaries will enter into a transmission service agreement with the independent party to take transmission service under the provisions of their OATT and will receive transmission capacity rights on the project in exchange for transmission service payments.
  - The independent party may file FERC rate case to update rates for changes in costs over time.
  - Beneficiaries may intervene in FERC rate cases.
  - Beneficiaries with capacity rights on the project may resell the capacity.



# Allocation of Ownership and Capacity Rights

## ➤ Joint Participant Projects

- Transmission lines are owned by the participants as "tenants in common" with each participant owning a pro rata share of the land and common facilities.
- All costs, such as development and construction, and liabilities are shared by the participants in proportion to their ownership percentage.
- After the line is in service, all operational costs in the form of line losses and balancing authority charges can change over time for the life of the line.
- All other costs such as O&M and upgrades are shared based on each participant owning a pro rata share of the land and common facilities.
- One of the owners typically acts as operating agent and takes direction from other owners, but not assuming any higher degree of risk than the other participants.
- Various administrative committees ensure all owners are appropriately involved in the oversight and administration of the project.
- Pre-established voting processes are used for approval of budgets, major expenditures and significant operational matters.
- Modifications to the joint ownership agreement must be approved by all owners;
- Owners indemnify each other and the operating agent.
- Owners have reasonable rights to approve assignment of another owner's share to a third party.

## **Combination of Independent Party Ownership and Participant Funding**



## Free Ridership Issues

- FERC begins from the premise that it cannot perform its regulatory obligation to ensure that rates are just and reasonable when free riders exist.
- FERC believes that cost allocation is a necessary component of transmission planning, and that proper cost allocation requires the identification of all project beneficiaries.
- The following provisions of the WestConnect planning and cost allocation process will prevent free ridership from occurring:
  - The WestConnect regional planning process will determine to what extent a project might have regional benefits for reliability or congestion relief problems and be considered for cost allocation.



## Free Ridership Issues

- WestConnect cost allocation procedure will allocate costs to all companies that benefit from a project thereby mitigating free ridership issues.
- Arrangements for the transfer of power and energy are made on a “contract path” basis and utilized through scheduling rights which are obtained either through ownership in transmission facilities, or reservation of transmission capacity, or both.
- In a contract path world one cannot transfer energy across a regional transmission project without obtaining some form of ownership in the project and/or paying to use it.
- Loop flow mitigation procedures are available if necessary to support operations of contract path.



## Approval of Costs by BOD and State Regulators

- FERC states that the final Rule sets forth requirements regarding the development of regional and interregional cost allocation methods but does not address matters of cost recovery.
- FERC declined to mandate veto rights for state committees, but did not preclude public utility transmission providers from proposing such mechanisms on compliance if they choose to do so.
- Due to the nature of the planning process and the need to forecast future variables there is always a degree of uncertainty in the results.
- Due to the uncertainty in the planning and cost allocation results and the need to address cost recovery issues, cost allocation shall not be binding on any Company, until those costs have been reviewed and approved by the Company's Board of Directors and any state regulatory commission that has jurisdiction over the recovery of costs for the planned facility.





## Approval of Costs by BOD and State Regulators

- There is an issue of whether the cost allocation developed in this FERC mandated transmission planning process is binding or is a recommendation.
- Some Companies believe FERC lacks the authority to make cost allocation binding and Order 1000 does not directly state cost allocation is binding.
- Other Companies believe that FERC intends for the cost allocation to be binding and will require it to be binding.
- Northern Tier Transmission Group and ColumbiaGrid are proposing that in their process the cost allocation will be a non-binding recommendation.
- Proposal for WestConnect is to file with cost allocation as a non-binding recommendation subject to BOD and State Regulatory approval but design cost allocation methodology so that it will be acceptable if FERC mandates that cost allocation is binding on all Companies.



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Questions?



**FERC Order 1000**  
**Compliance Strike Team Update**  
**IMC Meeting**  
**March 20, 2012**

Ray Myford  
APS



# Compliance Strike Team Members

- Ray Myford: APS, Chair
- Dan Kline: Xcel
- Pat Englin & Grace Wung: NVE
- Tracy Sliman: Tri-State
- Geoff Bennet: PNM
- Amy Weland & Mike Nitido: TEP
- Robin Nuschler: EPE (Outside Counsel)
- Kenna Hagan & Eric Egge: Black Hills
- Mike Engleman: LS Power (Outside Counsel)
- Charlie Reinhold: WestConnect



# Compliance Strike Team Assignments

- Develop OATT language common to Region members
- Develop common compliance filing language
- Develop website language for Public Policy Requirements
- Develop website language for Interregional communication requirements



# Compliance Strike Team Status

- Monthly meetings by conference call
- Current tasks:
  - Outline/Checklist for compliance filing
  - Skeleton for OATT Attachment (required to be the same for all filers in the Region)
  - Ready to begin introductory draft filing language
  - Discussed OATT detail vs. WestConnect Planning Documents question with FERC



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Questions?



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**Communications Strike Team Update**  
**IMC Meeting**  
**March 20, 2012**

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