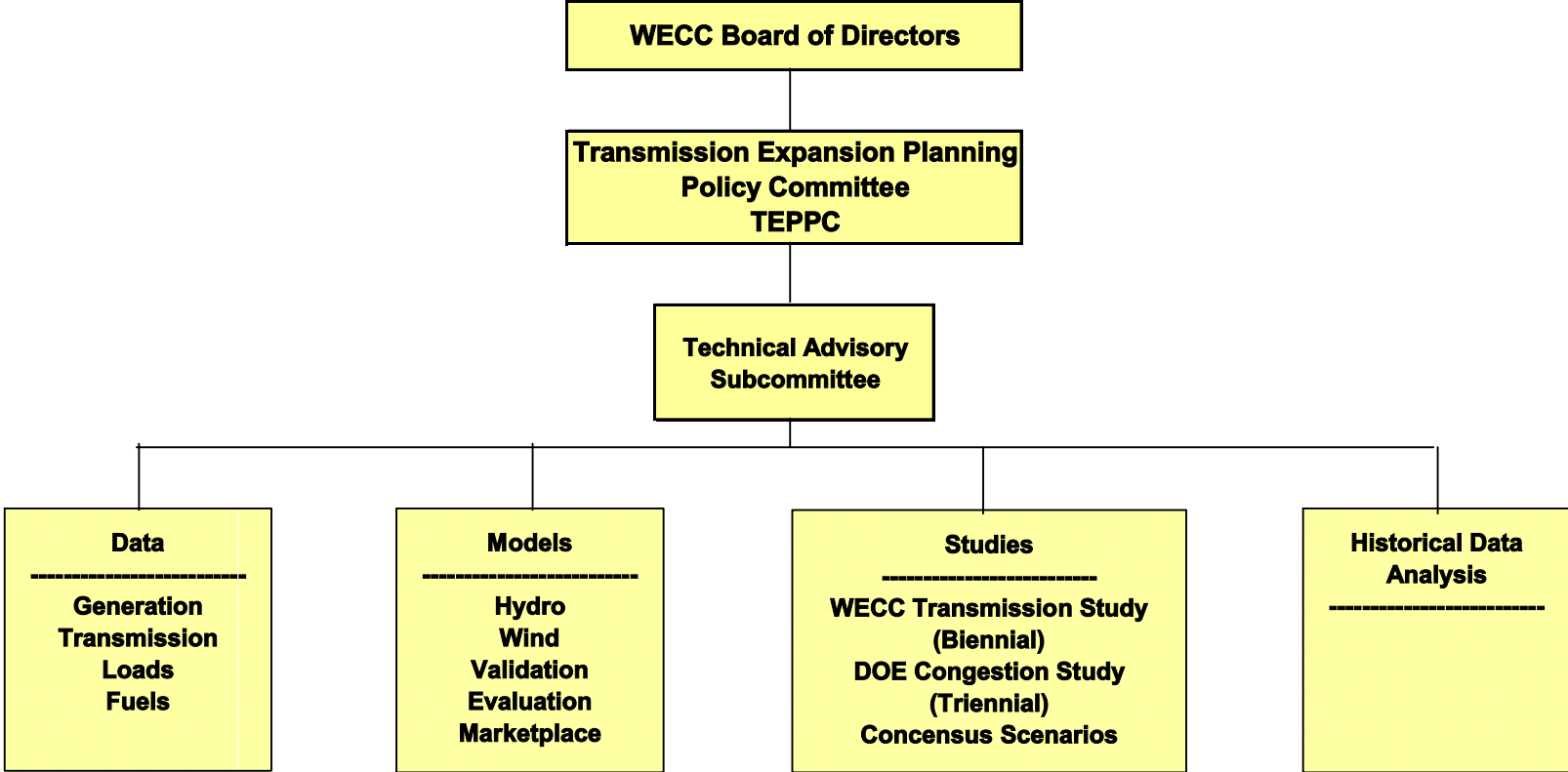


**WECC Transmission  
Expansion Planning Policy  
Committee (TEPPC)**

STEP Meeting

September 21, 2006

Bob Smith



**Groups that Interface at Multiple Levels**

**Subregional Planning Groups**

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SWAT  
NTAC  
RMATS  
CCPG  
STEP  
CAISO

**Other WECC Groups**

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PCC  
TSS  
LRS  
SRWG

**National and Regional Industry Groups**

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CDEAC  
CREPC  
DOE  
EEI  
NREL  
WGA  
WIEB

# TEPPC

- Policy Level Direction
- Reports directly to WECC Board
- TEPPC Charter
- Guide and Oversee
  - Regional Economic Transmission Planning and Analysis
    - Impartial and reliable data
    - Public Process Leadership
    - Analytical Tools and Services

# TAS – Technical Advisory Subcommittee

- Ensure that regional experts and stakeholders participate
  - State/provincial energy offices
  - Regulators
  - Resource and transmission developers
  - Load serving entities
  - Environmental and consumer advocates

# TAS

- Recommend Technical Details
  - Database and programs, models, and data for maintaining the database
- Provide and review data
- Data compiled and tested by the WECC Staff

# TAS

- With WECC Staff support
  - Propose a study program
  - Run necessary simulations
  - Prepare reports
    - Assumptions
    - Analysis
    - Results

# TAS Work Groups - Data

- Data Work Group duties
  - Regular Updates
  - Establish schedules
  - Identify data Sources
  - Recommend appropriate assumptions

# TAS Work Groups - Data

- Generation Data Function
  - Identify data sources and appropriate assumptions for Existing and Planned Generation data
  - Include input from experts
    - State commissions/offices
  - SSG-WI used IRPs and RPS requirements
  - CDEAC included input from renewable and coal technology experts
  - Coordinate with WECC LRS and TSS

# TAS Work Groups - Data

- Transmission Data Function
  - Identify data sources and appropriate assumptions for transmission network data
  - Rely on
    - Power flow case experts
    - Transmission planning experts
  - Start with Standard WECC base cases compiled by TSS

# TAS Work Groups - Data

## ■ Load Data Function

- Identify data sources and appropriate assumptions for load data
- Input from state energy offices and public utility commissions
- Coordinate with LRS and TSS
- Identify Monthly Peak and Energy load forecasts and hourly load shapes by Area
- Identify Areas and area boundaries
- Input from experts in DSM and conservation

# TAS Work Groups - Data

- Fuel Price Data Function
  - Identify data sources and appropriate assumptions for fuel price forecasts
  - Input from experts familiar with fuel price forecasts

# TAS Work Groups – Model and Validation

## ■ Duties

- Identify required program features
- Identify needed model improvements
- Compare program results
  - Between programs
  - To historical data
- Identify strengths and weaknesses in the various tools available
- Review Data Conversion Issues

# TAS Work Groups – Model and Validation

- Hydro Model Function
  - Improve/develop and verify hydro models
  - Include input from program vendors and Northwest and northern California hydro model experts
  - Initial data submittal for new hydro models
  - Models developed by WECC available to all program vendors for implementation

# TAS Work Groups – Model and Validation

- Wind Model Function
  - Improve/develop and verify wind models
  - Take into account need to commit other generation and vary the actual dispatch to account for wind variability

# TAS Work Groups – Model and Validation

- Validation Function
  - Validate System Model
  - Validate individual component models
  - Compare results between programs
  - Compare results between Gridview and Promod and identify differences in interpretation of data and models
  - Validate program results with measurements, historical data, expert predictions
  - Sensitivity studies to understand results/programs

# TAS Work Groups – Model and Validation

- Program Evaluation Function
  - Keep up to date regarding available tools
  - Recommend WECC Staff Tools
  - When WECC Staff NEA license expires, be ready to recommend renewal or licensing of an alternative program

# TAS Work Groups – Model and Validation

- Marketplace Evaluation Function
  - Focus on Models for marketplace related issues and how they affect the system representation
    - Market design
    - Reserves
    - Losses
    - Contracts
    - Joint plants

# TAS Work Groups – Studies

- Duties

- Recommending, gathering data for, and conducting appropriate studies

- Study Program Categories

- DOE Congestion (3 year cycle)
- WECC Transmission Expansion (2? year cycle)
- Consensus Scenarios

# TAS Work Groups – Studies

- DOE Congestion Studies
  - Identify suggestion improvements from the initial report
  - Identify appropriate assumptions and data
  - Prepare the Triennial DOE Congestion study report for the western region (2009)
  - Prepare annual update reports

# TAS Work Groups – Studies

- WECC Transmission Studies
  - Identify appropriate goals, sensitivity studies, assumptions and data for a biennial WECC transmission study
  - Compile sub-regional plans into a 10-year representation with assumed forecast load
  - Analyze interactions of the planned projects with the existing system and each other
  - Identify additional needed transmission and generation

# TAS Work Groups – Studies

- Consensus Scenarios
  - Identify goals, sensitivity studies, assumptions, and data

# TAS Work Groups – Historical Data Analysis

## ■ Duties

- Identify data sources
- Compile a triennial report regarding path loadings
- Address actual MW flows relative to path limits
- Include analysis of scheduled flows if data are available
- Define how to gather appropriate commercial data