

Climate impacts
cause changes in
load, hydro
shortfalls, loss of
cooling water

Plug-in vehicles – How
many? When? Under
what rules

Low carbon – How Low?
By When?

Vast low cost
gas supplies
from shale,
methane
hydrates

What is the range of potential transmission needs in the West under different futures?

PV breakthrough?

Major
efficiency
gains

Carbon capture
and storage
breakthrough

Demand
response
widespread
or not

Branson prize winner
– carbon removal
from atmosphere

Do nukes become
economic?

Situation Analysis (1)

- ▶ Technology preferences and public policies change
 - Past interconnection-wide transmission studies assumed either a coal future, gas future or “other than gas”, or renewables future
 - Current interconnection-wide planning studies are driven by study requests (per Order 890)
 - ▶ Most focus on higher renewable penetration, carbon limits, and greater efficiency
- ▶ Thus far, the Federal government has not established central policy ground rules on carbon and renewables

Situation Analysis (2)

- ▶ **Federal legislative proposals** have a laundry list of factors to consider in transmission planning
 - Local and distant renewables, reduced emissions, cost savings, fuel diversity, reduced risk, greater competition, competing land uses
 - Leaves wide discretion to federal agencies in deciding what factors are important

The West Needs a Systematic Scenario Development Process to:

- ▶ Make more informed decisions about under what electricity futures transmission expansion makes sense
- ▶ Provide guidance to FERC if it is given authority to approve interconnection-wide plans or develop such plans

Proposal

- ▶ Establish a systematic scenario development effort to supplement the Order 890 study request process
- ▶ Have the political leadership in the West take ownership of the alternative scenarios
 - Western Governors/Premiers lead the effort and agree on scenarios for interconnection-wide transmission studies and plans
- ▶ WECC lead the studies of transmission needed under the scenarios and develop a transmission plan or plans
- ▶ Governors/premiers approve the plan or plans
- ▶ Federal agencies abide by the plan or plans