



## Western Governors' Association Policy Resolution 08-8

### *Changes Needed in Electric Power System to Support Clean Energy Goals*

#### A. **BACKGROUND**

1. To support a growing Western economy, electricity supplies must be adequate, reliable, affordable, and environmentally acceptable.
2. Over the past decade, Western Governors have worked to shape a western electricity system to meet these goals. Western Governors:
  - a. Supported the enactment of federal legislation that makes grid reliability standards mandatory, delegates to western entities the authority to propose grid standards and enforce standards, provides deference to decisions made by western entities, and created the Western Interconnection Regional Advisory Body to ensure that Governors, as elected representatives of those who bear the costs and benefits of grid reliability standards, have a significant role in the development and enforcement of standards;
  - b. Supported efforts by the western industry and the Federal Energy Regulatory Commission (FERC) to implement pro-active, transparent transmission expansion planning processes;
  - c. Supported efforts by FERC to eliminate unjustified imbalance penalties on variable generating resources;
  - d. Signed a Transmission Permitting Protocol to coordinate the permitting of interstate transmission projects;
  - e. Urged improved assessments of the adequacy of the electric power system;
  - f. Supported the formation of grid organizations such as the Western Electricity Coordinating Council and sub-regional transmission planning bodies;
  - g. Established a clean and diversified energy initiative to accelerate the deployment of clean generation, energy efficiency, and needed transmission;
  - h. Supported state and regional actions to reduce greenhouse gas emissions;
  - i. Launched, in cooperation with the U.S. Department of Energy, a project to identify renewable energy zones and associated transmission to move generation in those zones to loads.
3. Significant progress has been made in meeting the Governors' goals. However, requirements to reduce greenhouse gases, coupled with much higher natural gas prices, and increasing costs of all types of generation present new challenges.

4. Energy efficiency and electric generation fuel choices will determine whether the region will meet its energy needs while protecting the environment. Accelerated deployment of energy efficiency reduces generating requirements, lowers costs and protects the environment. The deployment of renewable generation sources reduces emissions and fuel price volatility. Continued effective use of the West's large coal and natural gas resources requires advances in carbon capture and storage technologies.

Western load-serving entities and regulators are giving greater attention to renewable generation options. However, too often only local renewable resource options are considered when more distant lower-cost, higher quality resources may be available. Meeting clean energy goals will require that load-serving entities tap both local and more distant renewable resources. In addition, the development of cost-effective storage mechanisms for energy/electricity will help maximize the development of renewable resources.

5. The deployment of renewable generation requires changes in the transmission infrastructure to reach these location-constrained resources. Transmission is a "lumpy" investment with large economies of scale. Proliferation of transmission lines to the same renewable resource area can create unnecessary cost and environmental impacts. Additionally, new transmission technologies can increase transfer capacity in the existing grid. Medium-scale energy projects located on the "load-side" or in other locations can bypass existing constraints in transmission capacity and even eliminate the need for additional transmission capacity in certain instances.
6. The federal government has not effectively used its new authorities under the Energy Policy Act of 2005 to identify energy corridors on federal lands, designate reasonable National Interest Electric Transmission Corridors (NIETC), or coordinate transmission permitting by federal agencies. Proposed energy corridors on federal lands do not adequately reflect the growing importance of renewable generation, or the work being done by the western states in identifying Renewable Energy Zones. The only designation of a NIETC in the West was based on anecdotal information rather than rigorous metrics and analysis and resulted in an overbroad designation that undercuts states rights. Little progress has been made in expediting transmission permitting decision-making on federal lands, which is typically the most difficult obstacle to permitting new transmission. The federal government needs to be a more effective partner in the designation of corridors and permitting of transmission if the West is to meet its clean energy goals.
7. The deployment of large amounts of renewable generation also requires changes in grid operating practices to minimize the cost of integrating variable generation into a reliable power system. Small steps have been taken. For example, the Northern Tier Transmission Group has developed an Area Control Error sharing

mechanism that more transmission owners are joining. WestConnect and the National Renewable Energy Laboratory are studying potential cost savings from a virtual control area in all or parts of Wyoming, Colorado, New Mexico, Arizona and Nevada. Many western utilities have conducted company-specific wind integration studies. However, much more needs to be done to reduce the cost of integrating large amounts of variable generation. Additionally, more development work needs to be done on electric storage facilities that would make renewable resources less variable.

8. The Western Electricity Coordinating Council, with the support of the Western Interconnection Regional Advisory Body, has begun to study transmission needed to support 15 percent renewable generation. Sub-regional planning groups in the Western Interconnection are also examining renewable energy transmission needs. The MidWest ISO, Southwest Power Pool and ERCOT have transmission expansion efforts underway to support large scale wind generation.
9. Western Governors have adopted recommendations to accelerate the deployment of plug-in electric vehicles to reduce dependence on foreign petroleum supplies and reduce emissions.

**B. GOVERNORS' POLICY STATEMENT**

1. Western Governors support the development of better information on the location and cost of renewable generation and associated transmission to enable load-serving entities, regulators and energy policy officials to make more informed decisions on fuel choices and investment requirements. The findings from state-specific and regional Renewable Energy Zone studies should:
  - a. Be evaluated by load-serving entities and their regulators in integrated resource planning processes;
  - b. Become the basis for sub-regional and interconnection-wide transmission expansion planning.
  - c. Be used by federal land management agencies in the designation of energy corridors on federal lands under section 368 of the Energy Policy Act of 2005;
  - d. Help reform the Federal Energy Regulatory Commission's clogged transmission interconnection queuing process.
  - e. Be used by Project Teams established under the Protocol Governing the Siting and Permitting of Interstate Electric Transmission Lines in the Western United States signed by Western Governors and federal officials in 2002. The Western Governors reaffirm that the procedure established in this Protocol shall be used to resolve disputes between states relating to the siting of interstate transmission lines.
2. Western Governors urge load-serving entities (LSE's) and their regulators to collaborate in the review of regional generating options and associated transmission needs. LSE's and their regulators should examine the overall

- portfolio of generating and demand-side resources to ensure that the integrated grid has adequate flexibility to incorporate large amounts of variable generation at low cost. Such evaluations should include examination of the impacts of large-scale deployment of plug-in electric vehicles and energy efficiency programs.
3. Western Governors urge the federal government, in collaboration with the western electric industry and the states and WECC, to evaluate the potential long-term economic and environmental benefits from supersizing transmission from areas with large amounts of renewable resources.
  4. Western Governors support changes in the operation of the power grid by Balancing Authorities to reduce the cost of integrating large amounts of variable wind, solar and other renewable resources. This may include:
    - a. The consolidation or virtual consolidation of numerous Balancing Authorities into bigger regions which can efficiently accommodate large amounts of variable output generation;
    - b. Mandatory grid reliability standards that support expanded renewable generation while maintaining grid reliability.
  5. Western Governors urge the Western Electricity Coordinating Council and the North American Electric Reliability Corporation to evaluate the adequacy of the Western power system assuming large scale deployment of renewable generation. Such evaluations should be robust and transparent to enable state and industry decision-makers to evaluate and act on the findings of such evaluations.

**C. MANAGEMENT DIRECTIVE**

1. The Western Interconnection Regional Advisory Body shall continue to report to the governors on grid issues that may warrant the Governors' direct involvement. Additionally, the Western Interconnection Regional Advisory Body is directed to identify and provide advice to the Federal Energy Regulatory Commission, the North American Electric Reliability Corporation, and the Western Electricity Coordinating Council on changes that may be needed in grid reliability management to accommodate the deployment of large amounts of variable output generation.
2. WGA staff and the Western Interstate Energy Board are to provide to the federal government the information generated in the Western Renewable Energy Zone project and other state-specific and regional renewable energy zone projects to cause the energy corridor designations to support the development of renewable resources.
3. The Western Interstate Energy Board is to report to the Governors on whether the Department of Energy's designation or proposed designations of NIETCs in the West is based on sound analysis and information and whether such designations

adequately incorporate information from state and regional renewable energy zone studies.

4. The WGA staff and the Western Interstate Energy Board are directed to develop potential recommendations to the federal government on policy changes needed to enable the region to move renewable energy generation to market, including but not limited to changes to Sections 368 and 1221 of the Energy Policy Act of 2005, and changes to FERC Order 890.

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