

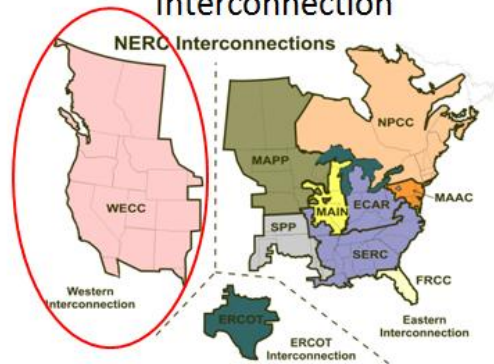
## ***Report from States in the Western Interconnection***

- The Western Governors first want to recognize the federal government for:
  - Signing of the nine-agency MOU to facilitate the permitting of projects on federal lands.
    - Implementation in the field for specific projects is critical.
    - Western states are ready to cooperate with the federal agencies enable timely reviews of proposed projects.
  - Publishing the programmatic EIS for solar. This effort should harmonize nicely with current WGA efforts to identify the most viable renewable resource areas in the West.
- Western Governors believe that improving the economic viability of renewable resources is critical to their continued expansion in the West. Federal efforts toward the funding of research and development of innovative technologies will help reduce the cost of developing solar, wind, geothermal and biomass projects.

- In the absence of federal drivers such as federal GHG limits or Renewable Energy Standard/Clean Energy Standard, Western state RPSs are driving the need for new transmission.

- Senator Bingaman’s RES proposal from last year would have little impact in the West. The sum of Western state RPSs exceed the amount needed under Bingaman. The current effort expressed in the White Paper on a Clean Energy Standard by Senators Bingaman and Murkowski may have a significant impact on the shape of generation and transmission depending on how policies emerge.

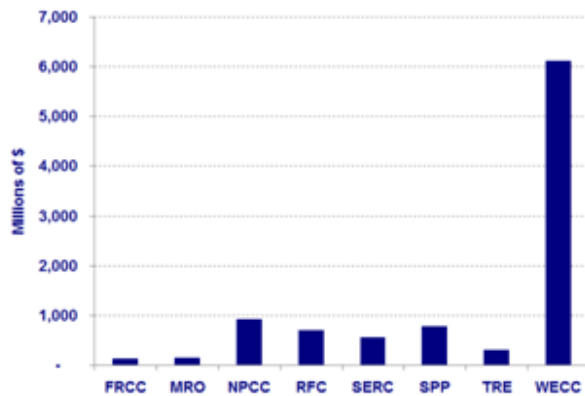
### **Geographical context – Western Interconnection**



- The need to build new transmission is driven by a variety of factors, including state and federal policies, environmental, natural resource, and price considerations, and system reliability and congestion management. The current RTEP project will provide useful information to assist policy-makers, regulators and other decision-makers.
- California RPS needs represent approximately two thirds of new renewable generation needed in the Western Interconnection by 2020.
  - Economics and California RPS legislation may reduce the need for the number of new interstate lines to California. However, significant transmission will be built within the state.
- With the construction of the “foundational” transmission projects, it appears from ongoing analyses that there is sufficient new transmission to meet demand and RPSs in 2020.
  - “Foundational” projects are those identified by subregional planning groups has highly likely to be operational before 2020. Some are under construction.

- “Foundational” projects total more than 4,000 miles of high voltage lines, most are 500 Kv lines.
- Major transmission projects are being constructed or planned in the Western Interconnection.
  - The graph below shows transmission investment by region.
  - Also see the map at the end of the document for “foundational” transmission projects (under construction or highly likely to be constructed) and “potential” transmission projects.

**Projected Investment Costs of Transmission Projects with a Proposed In-Service Date by February 2013  
(FERC, February 2011)**



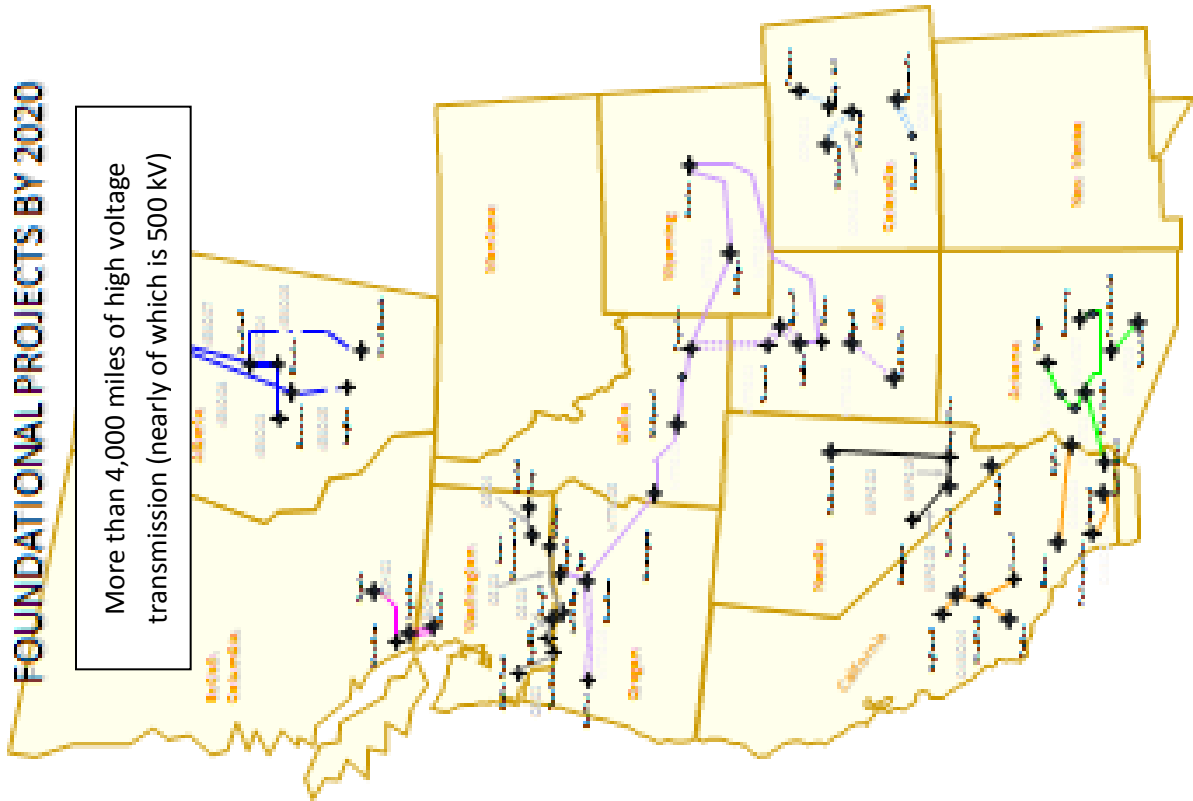
- Contingencies
  - Load contingencies
    - Penetration of new DSM beyond current plans
    - Impact of faster-than-expected economic recovery on demand (in excess of current expectations plus 10%)
  - Generation contingencies
    - Cost and performance of solar
    - Operation of existing coal fleet in face of EPA (non-carbon) regulations
    - Penetration of distributed generation
    - Impact of Fukushima Daiichi on existing and future Western reactors
- Challenges
  - Ensuring that Federal agencies support current efforts to identify those areas with both high resource quality and the least impact on wildlife, scarce natural resources, the environment, cultural and historical sites, and other important land uses.
    - Previous experience in the Western Renewable Energy Zones project indicates that large scale renewable energy and transmission development in many of the highest quality resource areas may be limited due to wildlife sensitivity.

- More aggressive national goals for clean energy will necessitate an in-depth consideration of the substantial land requirements for many renewable energy technologies, and may require a fresh look at the harmonization of species protection rules with renewable energy and transmission development.
  - Working with the states to ensure that new energy development does not lead to water management problems or problematic competition between user classes, especially during peak use periods.
  - Ensuring federal land management agencies and the Defense Department encourage and not obstruct renewable and transmission development in the West.
    - The Western Governors have existing policy supporting the elimination of any federal policies that automatically push renewable or transmission development from public to private lands. The development of such facilities should be on those lands that are best suited to accept those facilities.
  - Securing timely action on transmission and generation rights-of-way for projects on federal lands. Processes on public lands must eliminate time consuming requirements that do not add value toward meeting federal lands management objectives.
  - Integrating into a reliable, cost-effective power system the amount of variable generation expected.
    - Currently evaluating reforms such as improved wind and solar forecasting, intra-hour scheduling, dynamic scheduling, fast bi-lateral transmission and power markets and an Energy Imbalance Market.
- **How the federal government can help**
  - **Forest Management Plans and timely processing of right-of-way applications**
    - The recently proposed National Forest System Land Management Planning Rule has two omissions.
      - It does not detail how projects that may impact multiple forests (e.g., interstate transmission lines) should be handled. WGA believes a single transmission project that involves multiple forests should be handled by one federal official.
      - It is not required that plans provide for transmission corridors. The planning rule should include transmission and utility corridors as a necessary element of multiple uses plans.
    - Forest Service needs to engage early in transmission permitting process; not wait for other parties to act.
    - Secretary of Agriculture should consider a continuously updated and more detailed tracking system on transmission permitting actions.
  - **Preservation of transmission rights-of-way that are permitted but not immediately used due to currently inadequate demand for the power the lines would move.**

- **Assistance to “right size” otherwise economically-justified transmission to areas with large amounts of high quality renewable resources.**
  
- **Assistance to evaluate technology options to make more efficient use of the existing wires.**
  
- **Formation of an Energy Imbalance Market, if found cost-effective.**
  - **Participation by Bonneville Power Administration and Western Area Power Administration.**
  - **Potential backstopping start-up financing (e.g., from \$3.25 billion in stimulus funds to WAPA to enable transmission of renewable generation).**

## FOUNDATIONAL PROJECTS BY 2020

More than 4,000 miles of high voltage transmission (nearly of which is 500 kV)



## POTENTIAL PROJECTS BY 2020

