

## WREZ Project Assumptions

The purpose of this document is to explain the premises underlying the work of the WREZ project. This is a “living document” in that it will be expanded as the project proceeds in order to document additional premises that are agreed to by the Technical Committee. The document applies to Phases 1 and 2 of the WREZ project.

### 1. Identification of zones

- a. Phase 1 of the WREZ project will identify wind, solar, geothermal, small hydro, biomass, wave and tidal resources throughout the Western Interconnection. However, the primary focus of the project is to identify renewable resource zones (REZs) with developable resources of sufficient scale to require large scale transmission to deliver energy to load centers.
- b. Phase I will not develop supply curves, analyze wildlife, lands and natural resource issues, or identify conceptual transmission plans for the renewable resources outside of REZs.
- c. REZ identification is intended to help guide renewable resource development decisions by encouraging development in those areas that have the best energy potential, least environmental and other impacts, and favorable economics. The WREZ project is intended to allow decision makers to compare the economic and environmental impacts of developing renewable energy zones, including both transmission and generation development.
- d. Certain areas within a REZ that do not meet the above criteria may be considered undevelopable.
- e. Non-development zones are not enforceable until actual statute, legislation, or regulation is established. However, non-development zones may become policy of WGA, if the WREZ stakeholder recommendations are adopted by the Governors.
- f. Some resources, such as small scale hydro and biomass, may be significant in the aggregate, but are often too dispersed to support large scale transmission and thus by themselves may not qualify for renewable resource zone status.
- g. For renewable resources that *fall outside of zones*, the resource potential will be identified and the size of the resource will be estimated. A generic roadmap on how such resources can be developed will be prepared.
- h. As a general rule *for zones that include hydro/biomass resources* as well as utility scale wind, solar and/or geothermal, the initial supply curves for the zones will be developed excluding hydro/biomass resources. The exception is that if a hydro/biomass resource significantly changes the economics of transmission from the zone, the hydro/biomass resource will be screened within the environment and lands and zone identification working groups to determine its development potential and incorporated into the supply curve for the zone. For example, if a small hydro resource provides regulating generation

that significantly improves the economics of wind generation in the zone, the small hydro resource would be screened. In all cases, the *type* of land use and environmental information necessary to further screen small hydro and biomass resources within a zone will be identified and a roadmap will be prepared describing how such information can be developed, potentially in a future project.

- i. The WREZ project will analyze REZs at as detailed a level as the Technical Committee deems possible given the large scope of the project and its ambitious timeline. To the extent feasible, the level of detail will be applied equally in each state to ensure consistency across the region.
- j. The Phase I report will be predicated upon the most currently available data with the understanding that there may be a need to gather additional data to update and refine the identification of REZs.
- k. REZs should be designed to aggregate renewable resources likely to have a common transmission solution.

## **2. Identification of transmission from zones**

- a. The WREZ project will provide load-serving entities, regulators, energy policy makers and others with analytic tools to enable them to evaluate whether the potential renewable generation in specific zones is an attractive resource option. The product will allow the user to change assumptions on the cost of generation in a zone, the type and cost of transmission from a zone, whether the transmission will only carry renewable power, potential conceptual routing options for new or upgraded transmission lines, cost assumptions about alternatives (e.g., natural gas prices, carbon prices), as well as other factors. When estimating the length and possible location of transmission needed to move power from a zone, preference will be given to using existing energy corridors.
- b. Subregional transmission planning groups and Western Electricity Coordinating Council (WECC) which are recognized under FERC Order 890 (in the U.S.) will be asked to develop conceptual transmission plans from priority zones. The WREZ project may request that subregional and WECC transmission planning processes undertake specific transmission expansion studies. The information developed in the WREZ project will be input to those detailed transmission expansion study efforts. This information will include: distance from zones to loads, generating resource costs and characteristics, the location of existing corridors, and available lands, wildlife and natural resource information. “Supersizing” lines to REZs should be considered.
- c. Neither the WREZ project nor sub-regional and WECC transmission planning processes will perform site-specific routing studies. This is the job of transmission project sponsors.

