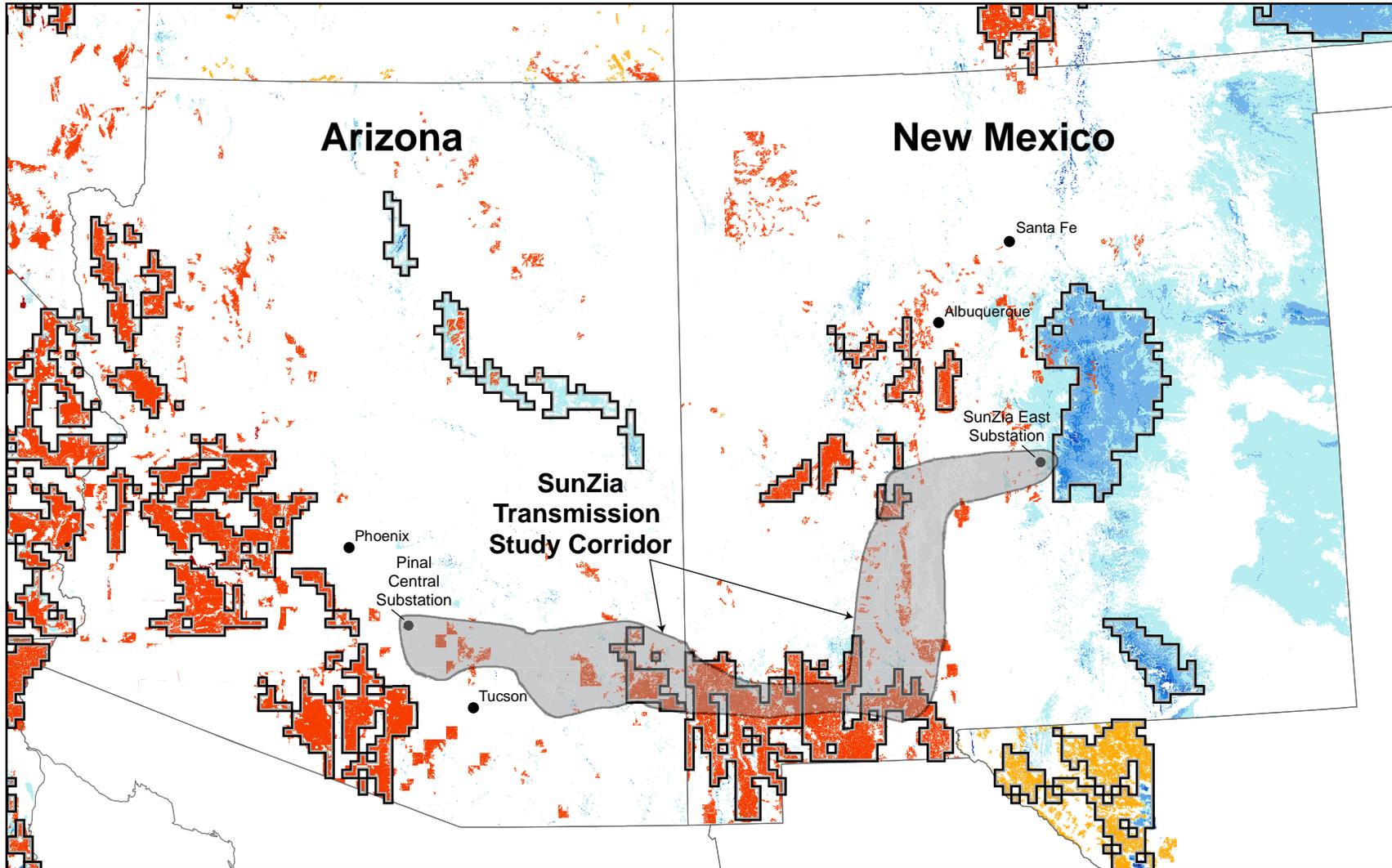


SunZia Southwest Transmission Project



Western Renewable Energy Zones (WREZ) Qualified Resource Areas

Solar thermal resource

Direct normal insolation (kWh/sqmtr/day)



Wind resource

Wind power class



Source: WREZ Draft Preliminary Qualified Resource Area (QRA) map, Western Governors Initiative and Department of Energy, February 2, 2009.

Western Renewable Energy Zones

The Western Governors' Association (WGA), in cooperation with the U.S. Department of Energy, launched the Western Renewable Energy Zones (WREZ) initiative on May 28, 2008, in Salt Lake City. Participating in the project are 11 statesⁱ, two Canadian provinces, and areas in Mexico that are part of the Western Interconnection. Guiding the initiative is a Steering Committee, comprising governors, public utility commissioners, and premiers. Officials from the U.S. Departments of Energy, Interior, and Agriculture, as well as the Federal Energy Regulatory Commission, serve as ex officio members.ⁱⁱ

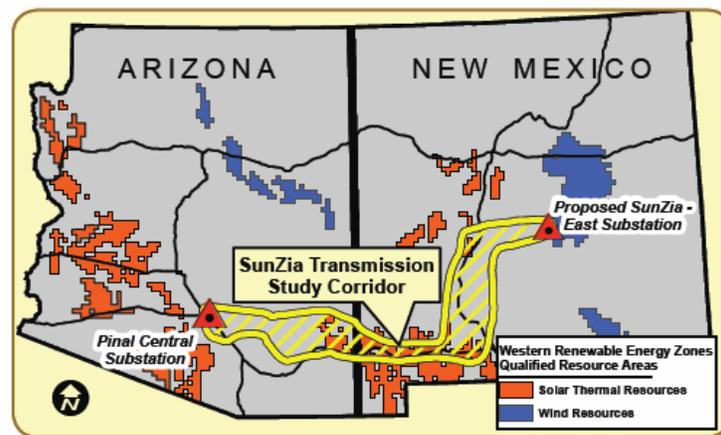
The goal of the project is to provide improved data and other information to guide the western region in decision making in transmission line siting for renewable energy resource access.

The WREZ initiative involves four phases:

1. Identification of renewable energy zones in the Western Interconnection
2. Development of regional transmission plans to enhance access to renewable resources
3. Development of a transparent process for bringing together buyers and sellers of electricity generated from renewable energy sources
4. Building interstate cooperation to address permitting and multi-state, cost-allocation issues

Currently in Phase 1, the WREZ technical committee has compiled and qualified sources for renewable energy using GIS technology. Qualified Resource Areas (QRA) are those areas determined to contain a high density of developable renewable energy resources after screening for known technical and environmental limitations, or constraints. Constraints include, but are not limited to, issues concerning: topography/slope, ground cover, urban areas, water bodies, airports, military lands, and lands with statutory/regulatory development limitations. A minimum QRA size for solar and wind sources was established based on electrical generating potential. This minimum QRA size is 1,500 megawatts (MW), which is the approximate carrying capacity of a 500 kilovolt transmission line. Further, solar and wind production thresholds had to be met.ⁱⁱⁱ

WREZ QRA-based Map for SunZia Southwest Transmission Project



Solar and Wind Potential

The map above displays the solar and wind QRAs identified from the WREZ initiative within New Mexico and Arizona. QRAs are areas where the existing density of renewable energy sources is deemed or “qualified” to be viable energy generation locations. The red areas depict the qualified solar thermal resource locations and the blue areas indicate the qualified wind resource locations. The proposed SunZia Southwest Transmission Project study corridor has been overlaid onto the map to indicate where the SunZia transmission line(s) would be generally located in relation to the QRAs.

The following estimates relating to the proposed **SunZia Southwest Transmission Project** are based upon the QRAs:

- 13,300 MW solar power potential in southern Arizona and New Mexico
- 11,300 MW wind power potential in central New Mexico

The QRA data and mapping published to date are still considered draft, pending public review.

About the Western Governors’ Association

The WGA is an independent, nonpartisan organization of governors representing 19 western states, and three U.S.-flag Pacific islands.^{iv} The mission of the WGA is to address important policy and governance issues in the West, advance the role of the western states in the federal system, and strengthen the social and economic fabric of the region. The WGA’s 2008-09 strategic agenda specifically called for the acceleration of the development of clean energy and electricity.

ⁱ States involved in the WREZ initiative are: Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming.

ⁱⁱ Western Governors’ Associate 2008 Annual Report. Accessed April 21, 2009. Viewable at <http://www.westgov.org/wga/publicat/WGA08.pdf>.

ⁱⁱⁱ Solar thermal minimum threshold = 6.5 kilowatt hour per square meter per day of solar DNI (direct normal isolation, or the level of radiation exposed to a given area directly from the sun). Wind threshold = Class 3 or greater wind (watts per square meter), or the energy level available at the site for conversion by a wind turbine; variable depending on wind speed, ground elevation in relation to sea level, and height of wind turbine.

^{iv} WGA members are: Alaska, Arizona, California, Colorado, Hawaii, Idaho, Kansas, Montana, Nebraska, Nevada, New Mexico, North Dakota, Oklahoma, Oregon, South Dakota, Texas, Utah, Washington, Wyoming, American Samoa, Guam, and Northern Mariana Islands.