

DESIGNATION OF ENERGY CORRIDORS ON WESTERN FEDERAL LANDS

The extensive experience of Argonne National Laboratory's Environmental Science Division in conducting complex analyses of national-level energy development issues was utilized to provide assistance in the identification and environmental review of energy corridors on federal lands in 11 western states. The analysis was incorporated into a programmatic environmental impact statement that allowed the participating federal agencies to designate more than 6,000 miles of corridor by amending land use plans.

PROBLEM/OPPORTUNITY

As part of the Energy Policy Act of 2005 (PL 109-58), Congress mandated that energy transport corridors for oil, gas, and hydrogen pipelines as well as electricity transmission and distribution be designated on federal lands in 11 western states (Arizona, California, Colorado, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, and Wyoming). To support this policy, Congress directed the Secretaries of Agriculture, Commerce, Defense, Energy, and the Interior to take a series of steps to designate these corridors, perform any required environmental reviews, and incorporate the designated corridors into the relevant Agency's land use and resource management plans. Analyses associated with the location, environmental effects, and public issues of energy corridors were incorporated in a programmatic environmental impact statement (PEIS) conducted under the guidance of the National Environmental Policy Act of 1969 (NEPA). Argonne National Laboratory (Argonne) was requested to provide technical assistance in the development of the PEIS.

APPROACH

The PEIS analyzed two alternatives: a no action alternative (which would not designate new corridors) and a proposed action alternative to designate a network of connected, West-wide energy corridors. The no action alternative would allow for current and future projects under current agency-specific right-of-way (ROW) application processes. Under the proposed action, which was the preferred alternative, the agencies would designate, through relevant land use and resource management plans, more than 6,000 miles of energy corridors incorporating existing, designated federal energy corridors and additional, newly designated energy corridors located on federal land. These energy corridors would comprise a comprehensive, coordinated system of preferred locations for future energy transport projects.



Electricity Transmission Infrastructure

The proposed action included policies that identify operating procedures both to protect environmental resources and address the administration of future energy transport development activities.

RESULTS

The first step in identifying potential energy corridors was the development of an "unrestricted" conceptual West-wide energy transport network. This network represented an interconnected set of paths along which energy could theoretically move throughout the western states. The unrestricted conceptual West-wide energy transport network developed in this step did not consider physical, environmental, or regulatory constraints or federal land administration.

Energy demand areas considered in the network were the major metropolitan centers in each of the 11 western states. Energy supply areas were considered to include areas with existing high or growing electricity-generating capacity, such as areas with numerous small-capacity or several high capacity electricity-generating units; areas with potential renewable energy (wind, geothermal, and

solar) development; and areas of known coal, oil, and natural gas reserves that could be developed in the future. The next step focused on identifying the location of potential corridors that would be consistent with the unrestricted conceptual West-wide energy transport network, while also taking into account to the maximum extent possible (1) important natural and cultural resources, (2) military training and testing areas, (3) protected landscapes (national parks, wilderness areas, wildlife refuges), (4) regulatory stipulations preventing siting of certain activities or infrastructure on specific federal lands, and (5) environmental concerns identified during public scoping. Using currently available and credible scientific information, the PEIS examined the direct, indirect, and cumulative impacts of potential corridor designation. The preliminary corridor designations and impact analyses were made public in a draft PEIS.

Comments on the draft PEIS were received from Tribes, industry and utilities, state and local governments and agencies, nongovernmental organizations (such as environmental groups), the general public, and other stakeholders. On the basis of these comments, the final PEIS was in many cases able to adjust corridor locations to avoid additional conflicts with important resources and other areas of concern. In addition to the public comment process on the draft PEIS, the Agencies also conducted government-to-government consultations on corridor locations with Tribal governments.

FUTURE

As a programmatic evaluation, this PEIS did not evaluate site-specific issues associated with potential individual energy transport projects. Local and project-specific impacts will be evaluated in the future at the individual-project level, and site-specific impacts would be addressed during individual project reviews. These site-specific reviews may tier off the PEIS by using and referencing the information, analyses, and conclusions presented in the PEIS. Additionally, the Agencies will implement a process to streamline and expedite the project application process.

An assessment of energy corridors in the eastern United States is under way with assistance from Argonne.