

EPRI Research Activities Stress Diverse Actions Necessary to Tackle Climate Change

Two recent EPRI announcements highlight the diverse set of technology options that will be required to address climate change. While continued operation of existing nuclear plants and the addition of new nuclear plants will be necessary to meet any of the greenhouse gas reduction targets being discussed at national and state levels, a broad portfolio of technologies must provide the base foundation for a global climate change solution.

An EPRI analysis of California's climate legislation shows that California can achieve its goals of reducing greenhouse gas (GHG) emissions to 1990 levels by 2020, but at a cost to the state's economy. The cost depends on how California implements its climate legislation. Key factors include the extent of emissions trading, emissions leakage to nearby states, whether a "safety valve" exists, and whether or not additional nuclear power is permitted in the state.

The analysis examines 20 different policy implementation scenarios, with cumulative real costs to the state's economy ranging from 0.2 percent to 1.2 percent (\$100 billion to \$511 billion) through 2050. The lowest costs are associated with scenarios that feature market-based cap-and-trade provisions. In general, costs increase as GHG limits become more stringent, but the availability of nuclear power as a generation option reduces the impact relative to scenarios in which nuclear power is not permitted.

To read more information on EPRI's economic analysis of California's climate initiatives, [click here](#) or visit www.epri.com.

EPRI has also announced its leadership role in a project to study the feasibility of concentrating solar power (CSP) in New Mexico. New Mexico utility PNM has expressed interest in building a CSP plant in New Mexico by 2010. CSP represents a zero-emission renewable generation option that can be scaled to utility scale, much like nuclear power; four CSP plants are currently operating in the United States, one in Nevada and three in California.

The project features support from several utilities and prominent renewable energy industry entities, including San Diego Gas & Electric Co., Southern California Edison, Tri-State Generation and Transmission Association, Xcel Energy, Black and Veatch, Nexant, National Renewable Energy Laboratory, Sandia National Laboratory, Western Resource Advocates and the Coalition for Clean Affordable Energy. The first phase of the project includes a feasibility analysis to assess the technological, performance, economic, environmental and regulatory issues surrounding the development of a 50-500 megawatt CSP plant, and inform utility decisions about CSP and its role in a carbon-constrained world.

For more information on EPRI's concentrating solar power project, [click here](#).

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