Regional compliance with the Clean Power Plan (CPP) is possible with additional time, and is likely to be less costly than state-by-state compliance. Compliance would require incremental changes to current resource plans, which will increase the amount of necessary capital investment and lead to higher energy production costs.

The U.S. Environmental Protection Agency (EPA)’s CPP would cut power-plant carbon emissions 30 percent by 2030. Implementation would be through state-specific, carbon-reduction goals set by the EPA, including final goals to be attained by 2030 and interim goals to be attained over a 10-year period, beginning in 2020.

SPP has conducted a second assessment of the CPP’s impact on its region, focusing on regional-compliance efforts. The assessment identified impacts on existing and planned generation resources, identified at-risk generation in the SPP region, evaluated resource-planning measures to facilitate compliance with the proposed carbon-emission goals, and estimated compliance costs.

The regional-compliance cost impact indicates compliance with the CPP is possible at an estimated cost of $2.9 billion per year in generation-resource capital investment and energy production costs. The analysis also reveals up to 13,900 megawatts of generation beyond original assumptions could be at risk of retirement.

SPP applied an effective carbon-cost adder, applied as a tax on each fossil unit’s CO2 emissions output in $15 increments ($0-75), and added it to existing resource plans. The assessment found an adder between $30-45 per ton would be the most cost-effective in a regional approach.

According to the report, SPP will require a much more intensive planning effort with its stakeholders to ensure regional compliance, along with new tools and metrics to fully identify the appropriate generation and transmission infrastructure.

This second analysis also does not alter SPP’s conclusion that additional infrastructure and time is needed to comply with the CPP. SPP’s prior reliability impact assessment indicated the CPP’s implementation timeline does not allow enough time to build appropriate generation and transmission infrastructure. Without needed infrastructure, SPP’s transmission system could face severe overloads, increasing the potential for cascading outages.

Implementing an approved regional-compliance plan will take time, as will potential mitigation measures to address unacceptable system conditions to accommodate retirements and/or retrofits to existing plants.