Regional Energy Market Background

In compliance with Senate Bill 350 (2015), the California Independent System Operator (ISO) is working to launch a regional energy market to advance the state’s ambitious clean energy goals and to reduce the cost of energy in the western states. A regional energy grid will reduce carbon emissions in the West and is the most efficient, effective way to meet the ever-increasing demand for reliable, affordable and sustainable energy.

What is a regional energy market?
A regional energy market would coordinate electricity systems across the West, utilizing the ISO’s infrastructure to develop one clean, reliable and more efficient western grid. The western regional energy market would be designed to increase renewable energy supply, while creating disincentives to send coal-generated energy to California.

How does a regional energy market work?
A regional energy market would take full advantage of the region’s renewable resources. Integrating clean, renewable energy on a coordinated western grid more effectively uses resources and will reduce greenhouse gas emissions. This also allows for a broader mix of renewables across the western region and provides tangible economic benefits by allowing for the export of unused renewable power, like solar, throughout the region. A regional energy market also remedies the problem of oversupply — the production of excess energy that is not used. Currently, oversupplies of solar energy generated in California go to waste if that energy has nowhere to be dispatched. However, in a regional energy market, that oversupply of solar can be sold cheaply to other states to displace coal or natural gas generation in other service areas.

Why is a regional energy market needed?
Studies show a regional energy market is the most cost effective way to achieve California’s 50 percent renewable portfolio standard (RPS). A regional grid also gives California the advantage of advanced planning, lower cost power purchasing, and increased situational awareness — critical elements to ensuring sufficient and affordable power supply for California businesses and residents. This will provide California with more energy resources at better prices with lower greenhouse gas emissions.

Which independent organizations have issued reports on the benefits of a regional energy market?
In addition to the ISO recently completing its SB 350 studies, a diverse mix of organizations have studied and identified the benefit of a regional power market in the West. These groups, who are committed to reducing carbon emissions, include the Energy Foundation; Hewlett Foundation; Union of Concerned Scientists; and Energy + Environmental Economics. Click here to see the studies.
Here are some more facts on how a regional energy market will help create a cleaner, more reliable and affordable grid in the West:

• A regional approach to energy is already proving to be successful—the ISO is currently coordinating with other grid operators in the West in the 5- and 15-minute markets through the Energy Imbalance Market (EIM), which was created to manage short-term fluctuations in energy supply.

• The 2014 launch of ISO’s EIM demonstrates that by expanding the ISO’s territory, California and participating states benefit from lower costs and reduced emissions. The EIM dispatches from the least expensive option first. Because coal-generated energy has costly carbon fees added to the price, the market will tend to favor cheaper renewable energy rather than coal resources from out of state. The EIM is already creating a cleaner, more reliable grid with reduced costs. The EIM’s monthly benefits reports are posted here.

• A regional energy market would adhere to California’s cap-and-trade laws on energy entering the state.

• A regional grid lets operators see more generators and transmission lines over a greater area, allowing better coordination and integration of renewables and leveraging of technology.

• According to an initial ISO assessment, a fully functional western grid under a 50-percent California renewable requirement could lower greenhouse gas emissions by nearly 2.6 million metric tons every year — the equivalent of removing more than 230,000 cars from the road annually.

What has to happen in order for the regional energy market to be created?

Creating a full-time, day-ahead regional energy market will require the state Legislature and Governor to pass legislation to update the ISO’s governance structure so out of state utilities can join the ISO. Click here for more information.

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