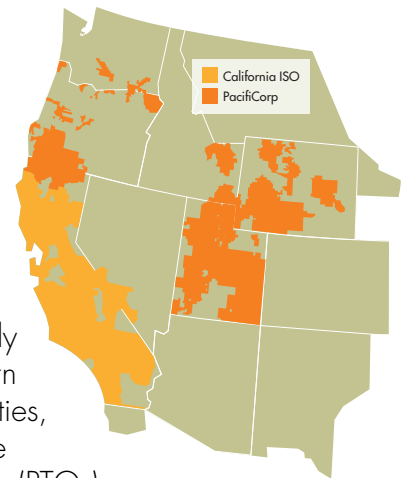


FAQ



Is the ISO merging with PacifiCorp?

No. A merger is a deal to unite two existing companies into one company. This is different; the California ISO will continue as a nonprofit public benefit corporation. This proposal would implement the same agreement the ISO currently has with other major utilities in California, such as Pacific Gas & Electric, Southern California Edison and San Diego Gas & Electric, as well as seven municipal utilities, one federal agency and four merchant transmission owners in California and one cooperative in Nevada. The entities are called Participating Transmission Owners (PTOs), and they participate in the ISO market in accordance with a Transmission Control Agreement. The agreement gives the ISO the authority to have operational control over the PTOs' high-voltage grids.

What is the current timeline on this effort?

SB 350 requires the ISO complete two tasks before the end of 2017: conduct studies on the environmental and economic impacts of a regional grid; and submit a proposal to the governor for the expanded ISO governance design. The ISO released the final study results on July 12, and submitted them to the governor's office on September 15, 2016. The ISO also drafted initial and revised proposals for governance structure, which is needed for other states to have a voice in policy-making for the new energy market. The governance proposals included input from hundreds of stakeholders in and out of California. On August 8, Governor Edmund G. Brown, Jr. announced his support for a regional grid operator, and that governance design legislation will be taken up in 2017. While the ISO had originally envisioned legislation in 2016, many stakeholders commented they needed time to fully understand the governance piece, and that there were some areas in the proposal that would benefit from more stakeholder input. The governor responded to those concerns, and the ISO, PacifiCorp and regional grid supporters are pleased with the direction, and look forward to developing a strong proposal for consideration by the Legislature in January. It is still important to regional grid supporters to stay focused and move forward, as the new market is seen as critical to California reaching its 50-percent renewable goal, and there is potential market competition from other grid operators in the Midwest to expand into western states.

Who would govern the ISO if it becomes a full-time day ahead regional energy market?

As envisioned in the ISO's latest revised proposal on principles for governance of a regional ISO, the ISO would be governed by an independent board that would be selected in a process determined by participating western states and stakeholders. The ISO proposed a set of principles for regional ISO governance after many months of consideration of various white papers and testimony from state energy leadership and a broad range of stakeholders from California and across the West. The ISO presented this proposal at two public workshops, Sacramento and Denver, on June 16 and June 20 respectively, with 42 sets of comments submitted by July 7. The ISO considered the feedback and presented a revised proposal at a joint state agency workshop on July 26. [Click here](#) to visit the California Energy Commission's webpage dedicated to this effort, and sign up to receive docket notices.

What layers of oversight have been put in place to ensure California, and other states' interests, would be protected under a regional ISO governance model?

A regional ISO allows for the preservation of state authority over each state's energy policies. This key principle is supported by all states and stakeholders engaged in this process. While significant, although limited, market issues are of shared interest amongst states, the proposal suggests that these issues be the primary authority of a Western States Committee, comprised of state's energy leadership and other key stakeholders. The ISO is also suggesting that a Transitional Committee develop the details of the governance structure, adhering to the principles set forth in legislation, and that committee's proposal would need certain state and FERC approvals before implementation could occur.

How are technical challenges regarding the shaping of the new grid being reviewed and solved?

While the governance design keeps moving toward state legislation in 2017, technical issues already are being evaluated and discussed by the ISO, stakeholders and existing and potential market participants. Currently, three stakeholder initiatives are underway to do a detailed analysis on the inner workings of the new grid: Transmission Access Charge options, Regional Resource Adequacy, and Metering Rules Enhancements. An initiative on Greenhouse Gas Emissions accounting will soon be launched. So the two components, governance and stakeholder initiatives, are on separate but parallel tracks. The governance component will provide a strong framework for decision- and policy-making, while complex technical pieces are resolved through the ISO's stakeholder process.

If the regional energy market is created, would California cede its authority to control its energy to the Federal Energy Regulatory Commission (FERC)?

No. The ISO is already under FERC's jurisdiction, and that would not change with a regional energy market. The ISO would also continue to remain subject to the grid standards established by the North American Electric Reliability Corporation (NERC) and its reliability coordinator, the Western Electricity Coordinating Council (WECC). Under a regional grid the Legislature, the Public Utilities Commissions, and local regulatory bodies will continue to maintain the authority and ability to dictate procurement decisions over the state's utilities as it does today.

Why is a governance change necessary when PacifiCorp and other out-of-state utilities are already buying and selling power through the ISO's Energy Imbalance Market (EIM)?

There are significant differences between the real-time EIM, and becoming a PTO with the full services of the ISO, including a day-ahead regional energy market serving about 95 percent of California's load. The EIM is voluntary, and is limited to balancing real-time demand for electricity with supply every 15 minutes, while dispatching the least-cost resources to meet that demand every five minutes. A full-service day-ahead regional energy market offers more comprehensive benefits, as the ISO would have full visibility of markets and networks, and could optimize all the available transmission capacity and generation – across a wider geographic area and using an expanded resource pool – in the day-ahead market to deliver the lowest cost energy to consumers. It also would allow the ISO to better plan for regional transmission projects and the efficient interconnection of renewable resources and avoid what a utility might have to provide for if it were to stand alone. The current governance structure of the ISO, including the newly formed EIM Governing Body, provides an appropriate voice in EIM-related issues and gives primary authority over market changes related to EIM. Without changes to the ISO Board and governance structure, non-California utilities have stated they have no interest in entering into a Transmission Control Agreement with the ISO. The differences between EIM and regional expansion was discussed on a public conference call on Wednesday, February 10, 2016. [Click here](#) to view the presentation.

What steps did the ISO take to ensure the SB 350 study process was transparent and inclusive?

Since the beginning of the study process, the ISO has been committed to hosting a robust, open and inclusive process. All meeting notices, documents and comments received were sent directly to stakeholders through public market notices as well as posted on the ISO's public website. The ISO has been active in encouraging stakeholders, consumer and environmental groups and everyday consumers to engage with us to ask questions, seek information and provide comments verbally and in writing. Some other important information to note:

- Over 1,400 stakeholders have participated in the process. All meetings have been publicly noticed and have been well attended. The ISO has made it easy to submit comments and share feedback. We have notified interested parties of next steps at each stage of the study, so they could plan their participation.
- The ISO has taken public feedback into consideration in crafting our governance proposal. This included adjusting its process and modeling assumptions. It has been transparent in its communication with stakeholders.
- The ISO discussed the framework, analysis and data with stakeholders on February 8 to ensure the study had an effective launch.
- When the ISO completed preliminary results of its studies on May 20, it made them publicly available and conducted a two-day workshop on May 24 and 25 to solicit public input. The results were posted on the ISO's public website.
- The study results summary is meant to provide a detailed overview of the findings. The final report, nearly 700 pages, provides significant details in the six areas of analysis. More than 3,000 megabytes of raw data is posted on the ISO website, and we clearly communicated with the public that confidential data can be obtained by executing a non-disclosure agreement and to email us with their request.

What did the SB 350 studies find?

The final study results show that by expanding the energy grid, California would reach its 50 percent renewable energy goal while saving consumers up to \$1.5 billion annually by 2030, lowering greenhouse gas emissions and adding jobs in California.

Other potential effects of a regional energy market include:

- Creation of 9,900 to 19,400 new jobs in the state by 2030, primarily as a result of lower energy rates;
- A slight increase in the state's household income of \$300 to \$550 on average by 2030;
- Increased investment in low-cost clean energy generation, including new wind and solar resources to meet the state's renewable energy targets;
- Reduced emissions of carbon dioxide, nitrous oxide, sulfur dioxide and hazardous particulate matter in California and across the western states;
- Economic benefits to disadvantaged communities, including stimulating job growth and increasing incomes;
- Lower energy costs due to load diversity that results in smaller operating reserves requirements;
- Better real-time visibility of system conditions in the larger geographic footprint and enhanced management of regional power flows; and
- Increased integration of renewables and reduced need for curtailment of renewable resources by offering excess energy across the West.

The ISO has made more than 3 gigabytes of underlying data used for the studies available.

Why do I have to sign a nondisclosure agreement to access some of the raw study data?

A nondisclosure agreement is required to comply with the ISO's rules regarding market-sensitive information. Some of the data is critical energy infrastructure which the National Electric Reliability Corporation (NERC) requires entities to maintain sensitive information as confidential. Because this information has the potential of influencing market prices or could compromise national security, it is important for the ISO to know who is accessing this data and restrict its use.

One stakeholder claims that the SB 350 study findings show the regional energy market will increase greenhouse gas emissions. Is that true?

No. The study shows that in 2020, there's a potential for a fractional increase as the regional market just begins operating. That result stemmed from some limitations in modeling for individual generator characteristics and imports to California, and lack of increase in renewable generation. However, once the market is in full swing, there is a substantial carbon emission reduction in a regional market compared to the California-only system. By 2030, as renewable development increases to 50 percent under the regional market, the results show a carbon emissions reduction of 8 to 10 percent annually for California, and 3.5 percent for the western states. The projected reduction for California in 2030 is about 40 times that of the small increase in year one.

PacifiCorp still has a large coal fleet. How can the ISO assure that the regional energy market won't facilitate the transmission of more coal into California?

Regional coordination will displace coal and carbon generation from PacifiCorp for two main reasons: California's policy adds a fee to carbon coming into the state; and the market is designed to dispatch the lowest cost resource. These two factors working together mean coal resources will be at a price disadvantage in the market, automatically reducing or eliminating coal from the market. Over time, that will decrease coal output, as the business model will not be sustainable. Under a day-ahead regional energy market, this dynamic can repeat itself during a 24-hour cycle. For example, when California is experiencing oversupply situations, excess solar energy can be committed to meet customer demand in PacifiCorp's states, which allows backing down or not even starting more expensive coal or gas generation. Likewise, when California is experiencing peak electrical demand later in the day, it can tap into PacifiCorp's large wind fleet to serve consumers.

There is evidence that this market structure already successfully displaces coal in the EIM. A 2015 report on coal use in the EIM shows that zero, or less than 1 percent of monthly energy supplies were generated from coal. [Click here](#) to view the report (see page 40). Rather than increasing coal generation, a regional energy market with PacifiCorp's full participation in the ISO would result in coal generation being displaced by a more comprehensive optimization of renewable and transmission resources across a broad region and decrease emissions for the West.

California has established policies to prevent more coal-generated energy from coming into the state. However, other states do not have those policies and may be fine with coal coming in. How can the ISO assure that its technology won't be used to help PacifiCorp shuffle its coal around to other states?

PacifiCorp wants to join the ISO because it is committed to reducing its coal fleet and is already investing in various forms of renewable energy. In fact, because of the steps it has already taken, PacifiCorp's carbon emissions in 2016 are approximately 18 percent lower than the average of its previous five years. It is expanding its portfolio of renewable resources, both directly and through power purchase agreements. It is the second largest owner of wind generation assets among regulated utilities in the United States. Renewable and non-carbon resources currently make up 25 percent of PacifiCorp's owned and contract generation capacity. Within the next two years, PacifiCorp plans to add even more new wind and solar capacity via purchase power agreements with independent power producers.

Here are some facts about its portfolio.

- PacifiCorp has 34 megawatts of geothermal.
- PacifiCorp has 951 megawatts of contracted solar expected to come online by the end of 2017.
- PacifiCorp has more than 42 megawatts of customer solar generation in Pacific Power service area.
- PacifiCorp has partnered with dozens of developers to help deliver more solar generation to its customers.
- PacifiCorp is adding to its solar generation in Oregon with a contract for a new 5 MW facility in Bly, which will be the largest solar generation facility in the state.
- PacifiCorp supported efforts to create a 50 percent RPS goal in the state of Oregon

Joining the ISO as a full participant will allow PacifiCorp to invest even more heavily in renewable energy. Using the ISO's advanced dispatch increases the efficiency and cost competitiveness of renewables. Since three of the six states that would be joining the regional energy market already have an RPS policy, as a market participant, PacifiCorp would have an incentive to continue investing and expanding its portfolio of renewables across its entire service area.

How will California's climate and environmental policy goals be protected in a regional market?

Senate Bill 350 (2015) explicitly calls for California to get 50 percent of its electricity from renewable energy by 2030 with clear milestones that include satisfying 33 percent of its retail electricity sales with renewable energy by 2020. The policy objective is clear—increase renewables and reduce carbon emissions.

Is California at risk of having to pay a significant share of new transmission facilities built in the PAC sub-region?

If the ISO forms an expanded balancing authority by integrating PacifiCorp, then each of the current areas would become a "sub-region" of the expanded "region." Also, once the expanded balancing authority is formed, the ISO would initiate an integrated transmission planning process (TPP) for the entire expanded area. To begin consideration for "regional" cost allocation – i.e., cost allocation to multiple sub-regions – the transmission facility must be planned under the new integrated TPP. Second, for new facilities that meet this first requirement, the ISO will perform an assessment of the monetary value of economic benefits each of the sub-regions would receive from the facility. This means that in order for the current ISO area to be allocated any costs of a new transmission facility built in the PacifiCorp sub-region, the benefits assessment under the integrated TPP would have to demonstrate that the current ISO area receives economic benefits from the facility, and then the amount of cost that could be allocated to the current ISO area would be commensurate with its share of the economic benefits.

Is this proposal trying to resurrect a plan from 20 years ago to expand California's power grid?

No. Much has changed in energy over the past 20 years. Technological advancements, load growth, and billions of dollars in grid upgrades have brought us to the point that we can use our state-of-the-art market platform to tap economies of scale to generate significant cost savings in producing and delivering energy. This effort to evolve the ISO into an organization that can serve the West is being driven by a provision in SB 350 (2015) that requires California to achieve a 50 percent renewable portfolio standard by 2030. It is also being driven by western utilities' need to integrate more renewables to meet their own state mandates for clean energy. In addition, the cost of building renewable resources is competitive with traditional forms of resources, and the energy from sun, wind, biomass and geothermal sources is virtually free, which creates a strong business case for utilities to pursue. Renewables are not only cleaner, but more cost-effective sources of energy. These major policy drivers are being experienced throughout the country and around the world.

Does this proposal increase California's risk of having another electricity crisis?

No. The California markets have been completely reworked and now have stringent safeguards to prevent the market manipulation that exacerbated the previous issue. In the past 16 years since the California energy crisis, more transmission has been added to reduce congestion and generators must comply with strict rules to offer their energy into the market for resale. In addition, independent market monitors watch market participants and their bidding behaviors closely to detect attempts to circumvent the new strong rules or covertly game the market. Additionally, the California Public Utilities Commission and other local regulatory authorities enforce resource adequacy rules that ensure sufficient capacity is made available to the ISO to meet load under a variety of conditions. That same market design would be maintained and only spread over a larger geographical footprint.

Will the expansion of the grid result in more gas burning in disadvantaged communities?

The SB 350 studies show that a regional energy market will reduce emissions of GHGs and other air pollutants in California by 2030, including disadvantaged communities. In fact, the studies show that air basin in disadvantaged communities in California in 2030 would have the lowest emission rates if the ISO is expanded to western states.