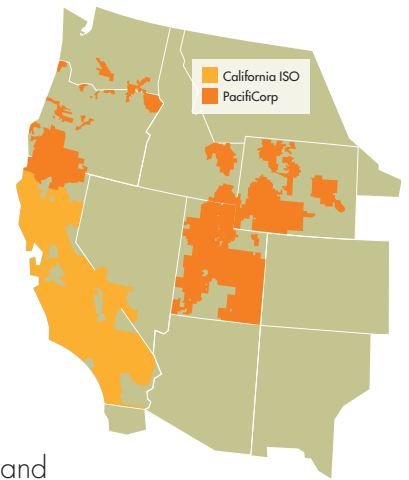




FAQ

Study shows benefits of regional market

On October 13, 2015, the California Independent System Operator (ISO) and PacifiCorp released a study that projects integration of the two Western grid systems could result in overall customer benefits ranging from \$3.4 billion to \$9.1 billion over 20 years. The study, available [here](#), was conducted by Energy and Environmental Economics (E3).



WHAT ARE PACIFICORP & THE ISO EXPLORING?

WHAT WOULD GREATER INTEGRATION OF THE TWO ENTITIES ENTAIL?

PacifiCorp and the ISO are exploring unified operations and planning for both entities' high-voltage transmission systems to create a regional organization. This would enable the sharing of renewable and other types of power resources across a broader area. With a regional transmission grid operated by the ISO, PacifiCorp would step into a role equal to that of other transmission owners and load-serving entities in the current ISO. These include Southern California Edison, Pacific Gas & Electric Company, and several municipal utilities. In order to successfully integrate PacifiCorp into a regional market, however, there are important changes needed to the ISO's existing governance structure to reflect its regional representation. If successful, PacifiCorp would continue to be the utility that serves customers in its six-state area, as would all existing members of the ISO that serve retail customers.

WHY WAS A STUDY ON BENEFITS OF AN INTEGRATED GRID & A REGIONAL ISO PRODUCED & WHAT DO THE RESULTS MEAN?

In April 2015 PacifiCorp and the ISO signed a memorandum of understanding to explore the potential benefits of creating a regional ISO. The study, commissioned by PacifiCorp, was part of that agreement.

The study's projection of significant benefits for both California and the region has prompted the ISO and PacifiCorp to move forward to further explore the creation of a regional entity and examine costs and other requirements needed to achieve the benefits outlined in the study.

WHAT ARE THE NEXT STEPS & TIMING?

The ISO-PacifiCorp planning effort has identified three key phases, each requiring extensive engagement with stakeholders and other interested parties. The stakeholder processes will begin before the end of the year.

The ISO must first determine the policy and tariff changes needed to further expand its balancing authority area outside of California. These policy and tariff issues will be addressed with stakeholders, and will need to be approved by the Federal Energy Regulatory Commission (FERC) and the ISO Board of Governors. PacifiCorp can then seek necessary authorizations from the regulatory entities in the six states where it serves customers. At the same time, a process to create a governance structure to reflect a regional ISO will have to be completed. Finally, both entities will need to implement the software and market design changes with market simulations for all market participants.

The parties expect these steps can be completed by late 2018 or in 2019.

WHY WILL THIS TAKE LONGER THAN PACIFICORP'S ENTRY INTO THE EIM?

The process to create and implement the EIM was less complex than determining policy and tariff changes needed to expand ISO's balancing authority area outside California. Adding PacifiCorp and its six states requires a new governance structure to reflect a regional ISO. PacifiCorp's integration will need analysis of tariff services and operations of the ISO as well as state regulatory approvals. By contrast, the EIM is a limited, voluntary market that uses the ISO's existing real-time market.

WHAT ARE THE PROJECTED COSTS OF FULL INTEGRATION?

The study does not quantify expected costs of full integration, but identifies a number of implementation and ongoing costs, such as transmission access charges and the ISO grid management charge. These will be more clearly understood following the ISO stakeholder processes to determine necessary market design modifications.

HOW WOULD A REGIONAL ISO BE GOVERNED AND ARE THESE RELATED TO CURRENT GOVERNANCE CHANGES UNDERWAY FOR EIM?

PacifiCorp, and most other out-of-state utilities that would consider joining a regional ISO, require a modification to the current governance structure of the ISO to reflect the broader nature of a regional operator. Senate Bill 350, recently passed by the California legislature and signed into law by Gov. Edmund G. Brown Jr., provides a path to change the ISO's governance structure, which will require legislative approval. The ISO will coordinate with California policy makers, other states, stakeholders, and PacifiCorp in public processes as it implements the components of SB 350 that support the development of a regional transmission operator.

The changes to the EIM governance structure currently underway are separate from SB 350. The ISO's Board of Governors in September 2015 approved a long-term governance proposal created by the EIM Transitional Committee, which is made up of energy and regulatory experts regionally. The ISO will establish an EIM governing body with delegated authority over EIM-related matters. In contrast, SB 350 contemplates establishment of a fully independent board over all ISO matters relating to the activities and operations of a newly created regional operator.

HOW WOULD A REGIONAL GRID IMPACT GREENHOUSE GAS EMISSIONS?

The E3 study is the latest of several studies that have concluded a regional energy market can reduce greenhouse gas emissions in the West and help California and other states lower the cost of meeting clean energy goals. This is due to better transmission planning, day-ahead coordination and better integration of renewable energy over a broader geographical area.

For more information on how regional coordination is expected to advance clean energy goals, as well as to see other studies, [click here](#).

HOW IS THIS PROPOSAL CONNECTED TO THE EXISTING ENERGY IMBALANCE MARKET?

Both the existing EIM, and the proposed full integration of PacifiCorp into a regional ISO, are based on the conclusion that greater regional coordination of grid management will produce costs savings, enhance reliability and smooth integration of current and future renewable energy resources. The ISO reports regularly on the cost savings of EIM, which are consistent with the projections published prior to implementation.

Broader integration of PacifiCorp and the ISO would not impact current or future EIM participants. The EIM will continue to exist as a voluntary, real-time energy market, regardless of whether the new EIM entity chooses to pursue full integration into a regional ISO. The benefits projected by the most recent E3 study around full integration are in addition to the benefits already being realized by participation in the EIM.

For more on EIM and to see the quarterly reports related to its benefits, [click here](#).