

# WESTERN EIM

The Western Energy Imbalance Market (EIM) was launched by the California ISO in 2014 in partnership with PacifiCorp, to leverage geographic and resource diversity across the western states. The real-time wholesale electricity market has generated gross economic benefits to participants totaling more than \$1 billion; enhanced regional efficiency of energy dispatch; supported the reduction of carbon emissions; and given system operators valuable, real-time visibility across the western grid.

TOTAL SAVINGS  
**\$ 1 billion**  
 in gross benefits

## BENEFITS

The Western EIM has surpassed \$1 billion in gross benefits since its launch in 2014. (See graphic on page 2). Benefits multiplied as the market has grown and as more entities have joined.

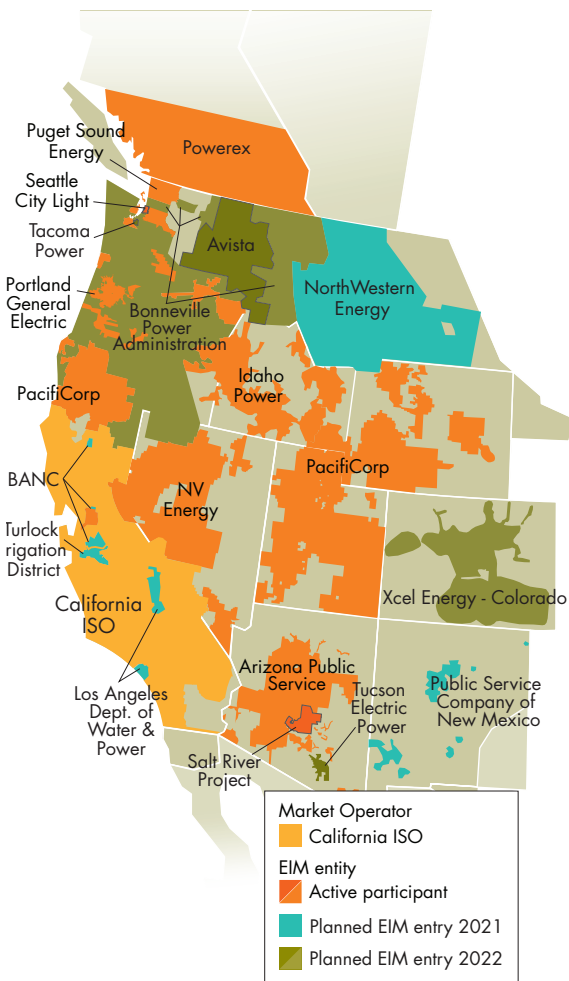
**Carbon reduction** – The Western EIM uses advanced technology to find and deliver the lowest-cost energy, which is typically renewable resources. Those market incentives led to a reduction in greenhouse gas (GHG) emissions of 533,381 metric tons since 2015, the equivalent of removing 112,141 cars from the road.

**Curtailements** – Western EIM is substantially increasing renewable energy transfers across a larger and larger area, resulting in a reduced need for the ISO to curtail renewable resources. Reductions total a substantial 1,246,404 MWh since 2015.

## HISTORY

The Western EIM began operation Nov. 1, 2014 to optimize resources across the ISO and PacifiCorp balancing authority areas, including California, Oregon, Washington, Utah, Idaho, and Wyoming. It is the first of its kind in the western US.

The market currently has 11 participants, with another 10 participants slated to enter the market. By 2022, the Western EIM will serve 82 percent of the Western Electricity Coordinating Council's (WECC) total load.



## HOW DOES IT WORK?

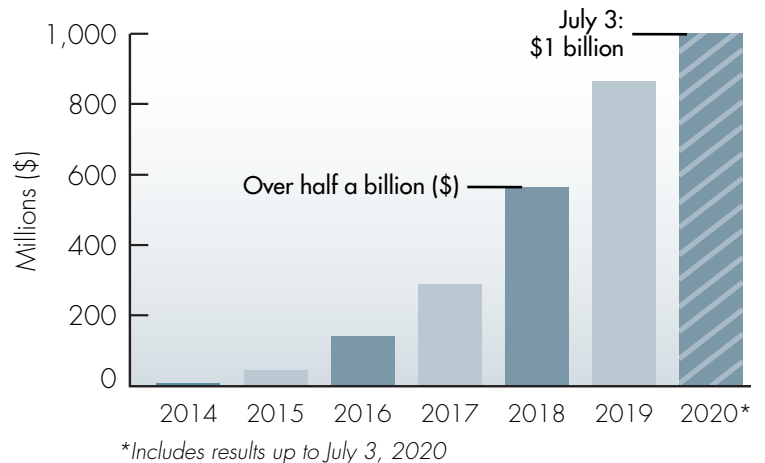
The Western EIM extends the ISO's real-time market services to entities that are not full participating transmission owners in the ISO grid. Through the wholesale energy market, the ISO provides other states in the western region with its state-of-the-art, real-time grid management system.

**Efficient management** – The Western EIM allows participants to buy and sell power close to the time electricity is generated and consumed, which reduces congestion on transmission lines, finds the least-cost resource across the footprint, and uses excess renewable energy that would otherwise be curtailed.

**Geographic diversity** – Expanding access to utilities in other states benefits consumers, energy producers, and other grid operators by leveraging geographic diversity to improve renewable integration. Because wind and solar production vary depending on weather and time of day, spreading production over a larger region makes those gaps in output less pronounced. Generation in one area helps to offset demand in another area, using excess renewable energy that might otherwise be curtailed, and adding much needed flexibility to the system.

**State-of-the-art-technology** – The ISO's energy management system (EMS) is the most advanced in the industry, providing the latest software and hardware to provide high quality performance, capacity and automation functions to serve Western EIM participants.

**Western EIM economic benefits total**  
[Read full breakdown](#)



## GOVERNANCE

**Western EIM Governing Body** – The Western EIM is governed by a five-member body, selected by regional stakeholders that gives entities throughout the West a voice in decision-making.

**Regional Issues Forum** – The forum, held three times a year, is a public meeting for stakeholders to discuss broad issues about the Western EIM. The forum encourages collaboration, and helps shape policy and find solutions to challenges in the energy industry.

**Body of State Regulators** – This group holds periodic meetings to help state regulators learn about the Western EIM, its Governing Body, and activities that could impact their agencies, and to allow regulators to give input on important issues.

Visit [www.WesternEIM.com](http://www.WesternEIM.com) for more information. Follow the [@California\\_ISO](https://twitter.com/California_ISO) and [@ISOMarketNotice](https://twitter.com/ISOMarketNotice) on Twitter. Download our mobile app, [ISO Today](#).