

WESTERN EIM FAQ

Expanding regional energy partnerships

WHAT IS THE ENERGY IMBALANCE MARKET?

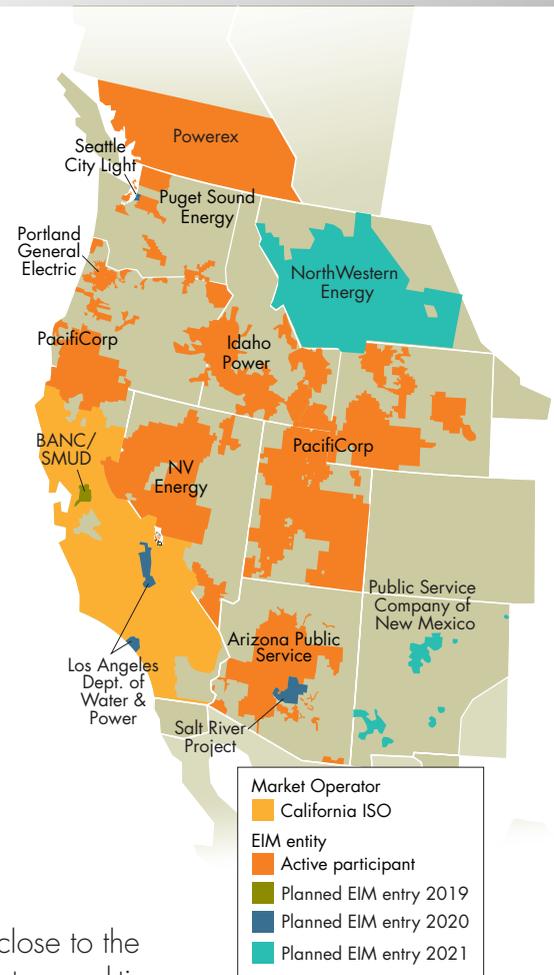
The ISO's Energy Imbalance Market (EIM) is a real-time energy market, the first of its kind in the western United States. EIM's advanced market systems automatically find low-cost energy to serve real-time consumer demand across a wide geographic area. Since launching in 2014, the western EIM has enhanced grid reliability and generated cost savings for its participants. Besides its economic advantages, the EIM improves the integration of renewable energy, which leads to a cleaner, greener grid.

HOW DOES THE EIM WORK?

The EIM allows participants to buy and sell power close to the time electricity is consumed, and gives system operators real-time visibility across neighboring grids. The result improves balancing supply and demand at a lower cost. The EIM platform balances fluctuations in supply and demand by automatically finding lower-cost resources from across a larger region to meet real-time power needs. EIM also manages congestion on transmission lines to maintain grid reliability and supports integrating renewable resources. In addition, the market makes excess renewable energy available to participating utilities at low cost rather than turning the generating units off.

WHO ARE THE CURRENT PARTICIPANTS IN EIM?

The ISO launched the western EIM on Nov. 1, 2014 with its first participant, Oregon-based PacifiCorp. Las Vegas-based NV Energy followed on Dec. 1, 2015, Puget Sound Energy of Bellevue, Washington, and Arizona Public Service of Phoenix, Arizona, on Oct. 1, 2016, Portland General Electric on Nov. 1, 2017, and Idaho Power and Powerex of Vancouver, British Columbia on Apr. 4, 2018. EIM is now serving consumers at lower cost in eight western states.



WHAT ARE THE BENEFITS OF PARTICIPATING IN THE EIM?

Increased regional coordination in generating and delivering energy produces significant benefits in three main areas:

- **Reduced costs for market participants by reducing the amount of** costly reserves utilities need to carry, and more efficient use of the regional transmission system.
- **Reduced carbon emissions and more efficient use and integration of renewable energy.** For instance, when one utility area has excess hydroelectric, solar, or wind power, the ISO can deliver it to customers in California or in one of the other seven western states served by EIM. Likewise, when the ISO has excess solar energy, it can help meet demand outside of California that otherwise would be met by more expensive — and less clean — coal or gas generation.
- **Enhanced reliability** by increasing operational visibility across electricity grids, and increasing the ability to manage transmission line congestion across the region's high-voltage transmission system.

WHAT ARE THE BENEFITS TO THE ISO?

Improved coordination and integration of renewable resources in the EIM provides a more cost-effective and accessible platform for California and other western states to gain real-time access to low-cost energy resources over the entire western region.

WHAT ARE THE OTHER BENEFITS TO PARTICIPATION IN THE EIM?

Easy and economical entry and exit.

Studies indicate that the benefits to all customers in the eight-state EIM footprint outweigh the costs of participating in the EIM. In addition, an EIM participant can choose to leave the market at any time with no exit fees.

Preserving autonomy

EIM participants maintain operational control over their generating resources, retain all their obligations as a balancing area, and must still comply with all regional and national reliability standards. For example, obligations to comply with standards, procuring ancillary services, physical scheduling rights and bilateral trades do not change with EIM.

WHAT IS THE EIM GOVERNANCE STRUCTURE?

The ISO Board of Governors appointed in May 2014 the EIM Transitional Committee to develop a long-term independent governance structure. Upon holding several open meetings throughout the West in 2015, the Committee completed a long-term governance proposal, which was approved by the Board on [Dec. 18, 2015](#). The ISO Board seated a permanent [EIM Governing Body](#) in June 2016. Future members will be approved by the EIM Governing Body. Continued stakeholder involvement will be critical to the success of the EIM by offering valuable input and support to expand a market that can be leveraged to more effectively use resources in the West. See the EIM [enhancements initiative](#) page for the current status of activity.

HOW CAN I LEARN MORE?

The ISO has a website dedicated to EIM activities, with information on quarterly benefit studies, stakeholder meetings, Governing Body meetings and other important information. Please visit www.westerneim.com.