WESTERN ENERGY IMBALANCE MARKET

The Western Energy Imbalance Market (WEIM) 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 $2 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.

BENEFITS

The WEIM has surpassed $2 billion in gross benefits since its launch in 2014 (see graphic on page 2). Economic and environmental benefits have multiplied as the market has grown and as more entities have joined.

Carbon reduction – The WEIM 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 712,270 metric tons since 2014, the equivalent of removing 149,752 cars from the road for one year.

Curtailments – Because of renewable energy transfers in the WEIM, the need for curtailing renewable resources was reduced by 1.6 million MWh since 2015.

HISTORY

The WEIM 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 17 participants, with another five participants slated to enter the market. By 2023, the WEIM will serve 79% of the Western Electricity Coordinating Council’s (WECC) total load.
HOW DOES IT WORK?

The WEIM extends California ISO 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 access to the WEIM with its state-of-the-art, real-time grid management system.

Efficient management – The WEIM platform allows participants to buy and sell power close to the time electricity is generated and consumed, reducing congestion on transmission lines and finding least-cost resources across the WEIM footprint, and efficiently utilizing excess renewable energy resources that would otherwise be curtailed.

Geographic diversity – Expanding market 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 of the region may be used to offset demand in another area by using excess renewable energy that might otherwise be curtailed and adding much needed flexibility to the system.

GOVERNANCE

WEIM Governing Body – The WEIM, which is governed by a five-member body of regional stakeholders, operates under a shared authority framework with the ISO Board of Governors on issues that affect WEIM participants.

Regional Issues Forum – The forum, held approximately three times a year, is a public meeting that supports ISO stakeholder discussions about the WEIM and other ISO initiatives. The forum is organized by stakeholder sector liaisons to support broad understanding and collaboration, help shape policy, and find solutions to challenges in the energy industry.

Body of State Regulators – The BOSR holds monthly meetings to help state regulators learn about the WEIM, the WEIM Governing Body, and ISO markets and to support state regulator efforts to express a common position on ISO stakeholder processes and important ISO market issues.

Visit www.WesternEIM.com for more information. Follow the @California_ISO and @ISOMarketNotice on Twitter. Download our mobile app, ISO Today.