

LEADING

through

TRANSITION



As Alberta shifts to a lower-emission electricity system, the Alberta Electric System Operator (AESO) is ensuring reliability and moving the province forward. Its team of electricity experts deliver on this commitment every day. ***This Year in Review*** shows how the AESO fulfilled its mandate in 2016 as well as **the progress** it made on achieving its **strategic plan**.

VISION: The AESO is the trusted leader in the advancement of the electricity framework by ensuring reliability, facilitating competition, enabling Alberta's economic growth and enhancing the quality of life for Albertans.

MISSION: The AESO facilitates a fair, efficient and openly competitive market for electricity and provides for the safe, reliable and economic operation of the Alberta Interconnected Electric System.

ENSURING STABILITY

ADVANCING SECURITY AND RELIABILITY

The AESO completes several phases of its **Energy Management System** upgrade and **Critical Infrastructure Protection** program in preparation for 2017 launch dates.

DELIVERING DURING CRISIS

In May, generation and transmission assets are taken offline as the result of wildfires in the Fort McMurray region. AESO System Controllers work closely with industry partners to keep the **system in balance** and ensure an **adequate electricity supply** to the impacted area.

STRENGTHENING THE GRID

The AESO continues to ensure the right transmission is in place at the right time. Key accomplishments include filing a Needs Identification Document (NID) for the **Provost to Edgerton and Nilrem to Vermilion** Transmission Development and receiving Alberta Utilities Commission approval for the **Downtown Calgary Transmission Reinforcement** NID.

PROVIDING COST TRANSPARENCY

The AESO's new Transmission Rate Projection (TRP) provides **important planning information** for industrial customers and residential consumers, including approximate future transmission costs. **Transmission cost projections have decreased since 2014.** The TRP shows that, by 2020, transmission rates on an average monthly household bill will have risen by less than \$3.



Visit aeso.ca for the AESO's *Corporate Governance and Financial Results*.

MOVING FORWARD

SUPPORTING CLIMATE LEADERSHIP PLAN INITIATIVES

The AESO develops the **Renewable Electricity Program**, designed to bring 5,000 MW of new renewable generation online by 2030. It also conducts reliability assessments and **provides advice to the Government of Alberta** on the **phase-out of coal-fired generation by the same date.**

INTRODUCING A CAPACITY MARKET

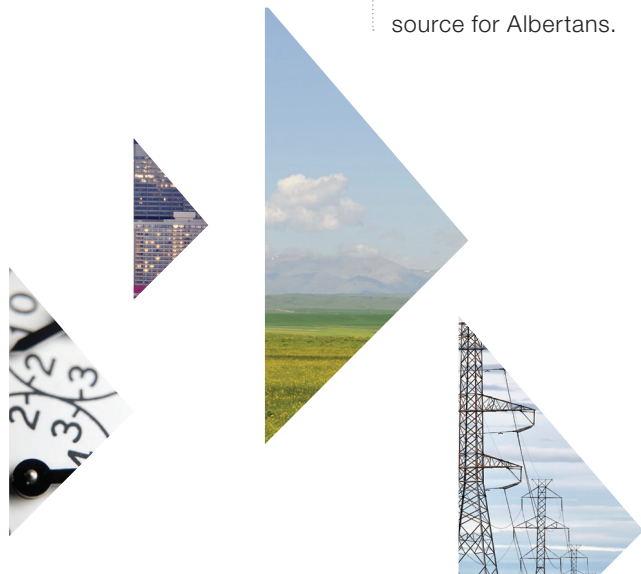
The provincial government accepts the AESO's recommendation to introduce a capacity market. The AESO will design it to be **sustainable, maintain reliability, increase price stability, attract new generation investment and drive innovation and cost discipline.**

EXPANDING WORK-FORCE CAPABILITY

The AESO continues to implement **new and enhanced programs in support of its strategic plan**, winning a national industry award for its innovative **Retirement Transition Program**. These programs help the AESO further broaden its workforce knowledge and abilities.

IMPROVING WEB COMMUNICATION

Industry, government, landowners and other stakeholders now have easier access to information on the **AESO's redesigned website**. Offering **streamlined navigation, an easy-to-follow library of ISO rules, better search functionality and other enhancements**, the new site is a critical information source for Albertans.



2016 ELECTRICITY IN ALBERTA

at a glance



PROVINCIAL ELECTRICITY DEMAND (GWh)

79,560

1% DECREASE (GWh)
FROM 2015



697



TOTAL GENERATION CAPACITY

16,423 MW

↑ 1% INCREASE FROM 2015

POOL PRICE

45%

AVERAGE

\$18.28/MWh

PEAK SEASONAL DEMAND (MW)



SUMMER PEAK DEMAND (MW)

10,244

DECREASE (MW)
FROM 2015



276



WINTER (NEW RECORD) PEAK DEMAND (MW)

11,458

INCREASE (MW)
FROM 2015



229

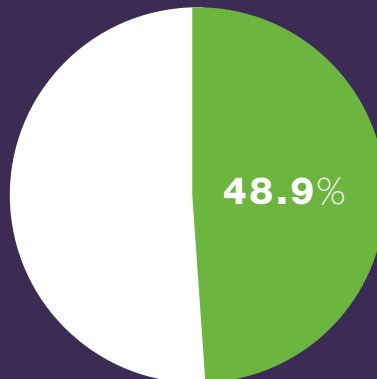
182

active applications in the

CONNECTION PROCESS



20%
INCREASE
FROM 2015



89

**RENEWABLE
PROJECTS**