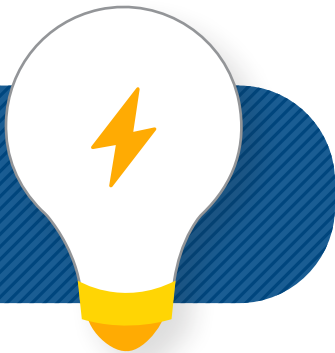


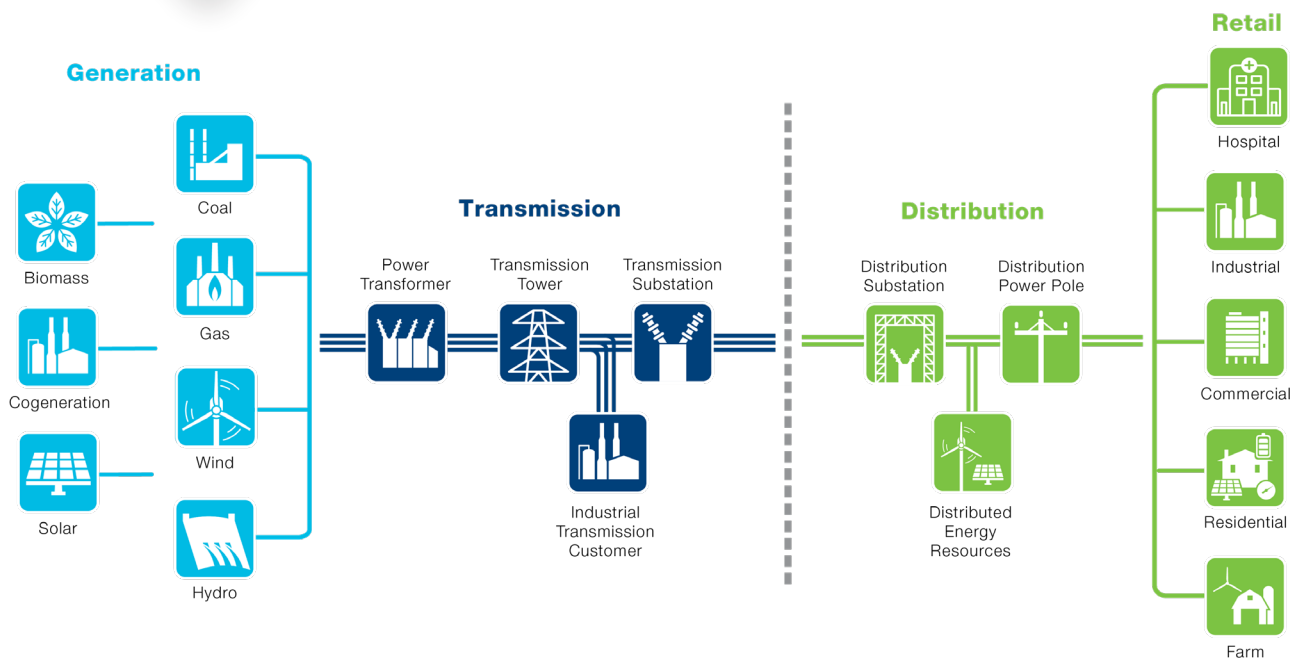
# Electricity in Alberta and the AESO



## ➤ HOW DOES ALBERTA'S ELECTRICITY INDUSTRY WORK?

Alberta's electricity industry is made up of four main parts:

- **Generators** are commercial businesses that compete to sell the electricity they generate into the wholesale electricity market.
- **Transmission Facility Owners (TFOs) and Distribution Facility Owners (DFOs)** build and operate the wires and related infrastructure within their service territory.
- **Retailers** sell power they purchase from the wholesale electricity market to farms, businesses and homes.

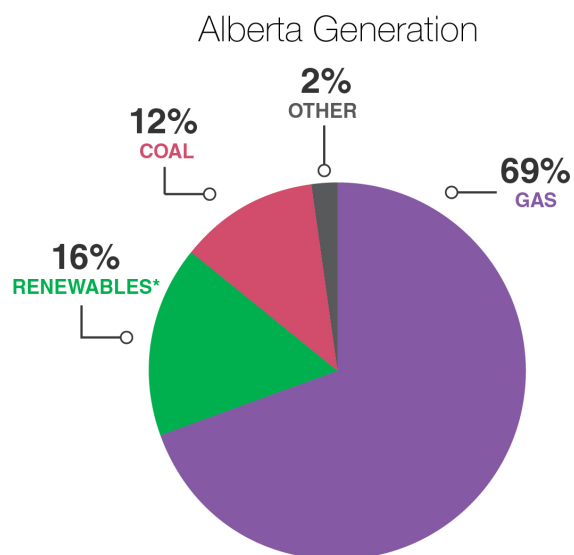


## ➤ WHAT IS THE AESO'S ROLE?

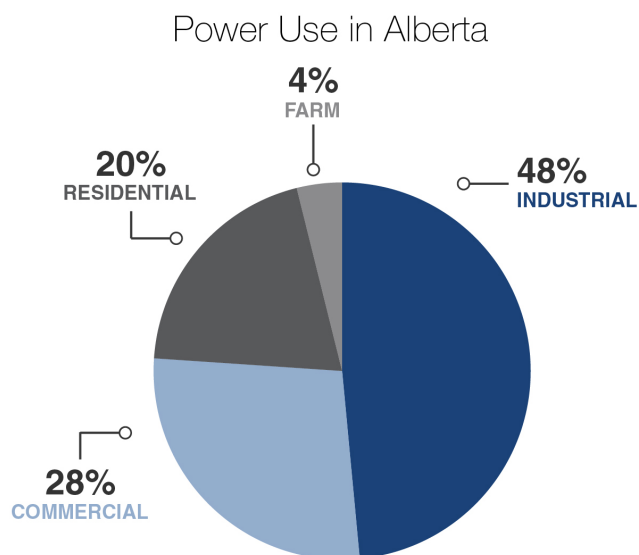
The Alberta Electric System Operator (AESO) is an independent not-for-profit agency of government that exists to ensure the province has reliable and affordable power. We do this by working hard on behalf of Albertans in four key areas:

- **Manage and plan the grid 24 hours a day**  
We work with industry partners to keep electricity flowing throughout the province. Our System Controllers balance supply and demand 24/7 making sure Albertans have power when they need it.
- **Plan and operate the market**  
In Alberta, companies own generation, transmission and distribution facilities. We dispatch the power sold by generators, using the lowest-priced electricity first and then the next lowest until the need for power has been satisfied.
- **Plan the future of the system and its infrastructure**  
As Alberta grows, so does its need for electricity. We plan ahead and expand the grid, ensuring the right transmission lines are built as efficiently as possible.
- **Connecting customers to the grid**  
We ensure generators and large power consumers can connect to the transmission system in a safe and reliable manner. Fair, efficient and open transmission system access is facilitated through the AESO's Connection Process and transmission tariff.

## ➤ HOW IS POWER USED AND WHERE DOES IT COME FROM?



Source: AESO Annual Market Statistics Datafile (data as of Dec 31, 2023)  
 \*Renewables include wind, solar and hydro.



Source: Monthly Sales History 2022 ([www.auc.ab.ca/annual-electricity](http://www.auc.ab.ca/annual-electricity) data/)



All Albertans have the opportunity to voice their thoughts or concerns about transmission projects to the Alberta Utilities Commission (AUC).

## ➤ HOW IS TRANSMISSION DEVELOPED IN ALBERTA?

Our grid and market operations responsibilities give us a unique view of the entire system. This is essential to effectively and prudently plan transmission development.

- **Our system controllers** can see exactly what is happening on the grid. They share this with our forecasting team and transmission system planners to determine how the grid will have to evolve to meet Alberta's electricity needs. New transmission projects are included in our Long-term Transmission Plan (a 20-year forward-looking blueprint of grid developments).
- **When we determine** it is the right time to advance the transmission system, we prepare a Needs Identification Document (NID) Application. We file it with the AUC, the provincial regulator, and it moves forward in the AUC's regulatory process. The TFO also needs to file a Facility Application (FA) with the AUC.
- **We have a responsibility** to connect customers to the grid. Additional transmission infrastructure may be needed to connect their facilities. Projects connecting to the grid require the connection NID and the TFO FA to be approved by the AUC before they can proceed.



### ALL-TIME RECORD

PEAK DEMAND

**12,384 MW**

(WINTER 2023)



### INSTALLED GENERATION

CAPACITY

**20,777 MW**

LEARN MORE ABOUT THE AESO: [WWW.AESO.CA](http://WWW.AESO.CA)