

Transmission Rate Projection

The AESO's role is to provide a safe and reliable grid for Albertans.

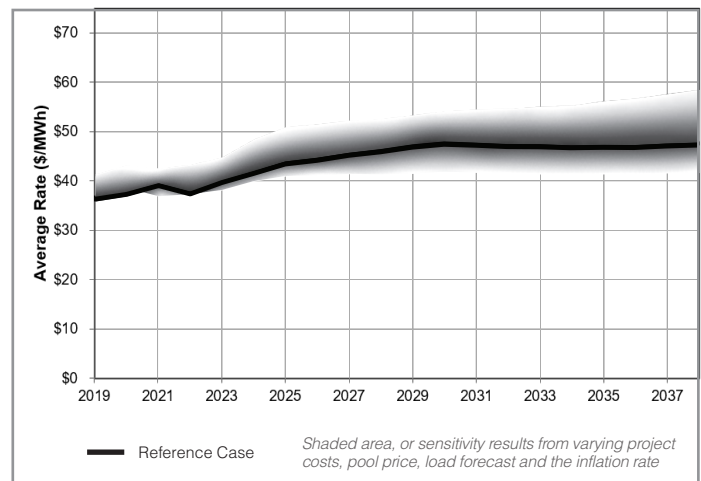
We have prepared the Transmission Rate Projection with the intention of providing information that may aid stakeholders with their long-term planning, and residential consumers with an approximate projection of how much they may pay for transmission in the future.


▶ BACKGROUND AND ASSUMPTIONS

- Transmission rates are charged based on a consumer's usage of electricity. As most electricity in Alberta is consumed by industry, the majority of transmission costs are paid for by industry.
- The AESO's projections start with data from current transmission utility tariff applications and incorporate forecasts and other assumptions to project rates in the future. Major forecasts and assumptions used in the projections include:
 - Updated costs and schedules for transmission projects in the AESO 2020 Long-term Transmission Plan
 - Recovery of transmission project costs over the life of the transmission equipment which generally can be between 30–60 years, as approved by the Alberta Utilities Commission
 - Forecast energy requirements and pool price
 - Inflation factors based on indices provided by the Conference Board of Canada and Statistics Canada
- The AESO has provided information on capital spend projections for system and connection transmission development as well as capital maintenance and replacement projects from current transmission utility tariff applications.
- Actual rates charged for transmission will be as approved by Alberta's regulator, the Alberta Utilities Commission.

Average Cost of Electricity For Transmission (\$/MWh)
Applicable to Average Consumer Connected to the Transmission System

Sensitivity of Transmission Rate (\$/MWh)





AN AVERAGE RESIDENTIAL CONSUMER IN ALBERTA USES
600kWh
OF ELECTRICITY EACH MONTH

Based on our projections, this average residential consumer will pay approximately **\$26/month** in transmission charges in **2025**.



2021 CALCULATED AVERAGE TRANSMISSION RATE

APPROXIMATELY
\$39/MWh

1 MWh = 1,000 kWh



2025 PROJECTED AVERAGE TRANSMISSION RATE

APPROXIMATELY
\$44/MWh



5 Year PROJECTED CAPITAL SPEND ON TRANSMISSION SYSTEM PROJECTS

APPROXIMATELY
\$256 Million (inflight projects
and planned developments)

Transmission rate projections

	Near term projections (2021–2025)					Medium term projections (2026–2030)				
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Transmission system capital spend ¹ (2021 \$ Million)	\$0	\$0	\$0	\$256	\$0	\$340	\$340	\$340	\$340	\$340
Transmission connection capital spend ² (2021 \$ Million)	\$92	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80	\$80
Capital maintenance and replacement ³ (2021 \$ Million)	\$315	\$315	\$315	\$315	\$315	\$315	\$315	\$315	\$315	\$315
Total revenue requirement ⁴ (nominal \$ Millions)	\$2,301	\$2,219	\$2,368	\$2,481	\$2,619	\$2,695	\$2,772	\$2,851	\$2,930	\$2,981
DTS energy forecast ⁵ (GWh)	58,399	58,861	59,127	59,159	59,622	60,311	60,651	61,376	61,789	62,086
Average transmission rate (nominal \$/MWh)	\$39	\$38	\$40	\$42	\$44	\$45	\$46	\$46	\$47	\$48
Average transmission portion (600kWh) of residential monthly bill (nominal \$)	\$24	\$23	\$24	\$25	\$26	\$27	\$27	\$28	\$28	\$29

¹Information from AESO 2020 Long-term Transmission Plan.

²Annual average from AESO's 2021 ISO tariff filing.

³Information gathered from TFO General Tariff Applications.

⁴Revenue requirement is the total transmission charge that is to be recovered from all consumers in that year. For a more detailed breakdown of information, please refer to the AESO's 2021 ISO Tariff Update Application.

⁵AESO 2019 Long-term Outlook updated to reflect the impact of COVID-19 and low oil prices on Alberta's power system.

➤ LOOKING FORWARD TO 2030–2038

While looking beyond 10 years can produce less certain projections, we have prepared our projections to 2038. Key highlights from those projections are:

- Transmission system capital spend from 2030 to 2038 is estimated to be \$146M
- Average transmission rate in 2038 is estimated to be \$48/MWh
- Average transmission portion of a residential monthly bill in 2038 is estimated to be \$29 (600 kWh/month)

➤ WHO IS THE AESO?

The Alberta Electric System Operator (AESO) plans and operates Alberta's electricity grid and wholesale electricity market safely, reliably and in the public interest of all Albertans. We are a not-for-profit organization with no financial interest or investment of any kind in the power industry.