The Alberta Electricity Market
Frequently Asked Questions

NOTE: Responses have been gathered from the official websites and public materials of the Government of Alberta, Alberta Utilities Commission, Alberta Electric Operating System (AESO) and the Independent Power Producers Society of Alberta (IPPSA).

The Alberta Deregulated Market

How has the market changed since deregulation?

• A number of additional players have entered Alberta’s market. This competition provides choice to Albertans.

![Graph showing market share regulation 1995 and deregulation 2011](Image)

7,300 MW 13,500 MW

Many strong competitors
Significant new supply

The Role of Alberta Market Participants

What’s the role of transmission and distribution in the market?

(Source: Alberta Utilities Commission)

• Electricity is sent from the generating plants over high-voltage transmission lines to substations that use transformers to reduce the voltage level.
• The Alberta Electric System Operator (AESO) oversees the design and use of the transmission system to ensure fair market rates, non-discriminatory access for all market participants and the safe, reliable operation of the system.
• The Alberta Utilities Commission (AUC) approves the costs for transmission facility owners to provide their services. The regulated costs of the transmission companies are passed along to the AESO, which recovers the cost of operating the system and the transmission companies’ costs through the AESO’s transmission tariff, which is also approved by the AUC.
• The AUC also is required to approve construction, connection and operation of new transmission facilities in Alberta. The Hydro and Electric Energy Act gives the AUC authority to approve the construction of transmission facilities and system interconnection and construction of electric substations. 
• Once the transformers have reduced the high-voltage electricity from the transmission lines, the electricity then travels over low-voltage distribution lines, owned by distributors or distribution wire owners, to customers. The distributors may be municipally owned, rural electrification associations or investor owned companies. The electricity is sold to the end customer by a retailer.

What’s the role of retailers in the market?

• Alberta’s deregulated market allows consumers to consider a number of electricity retailers and choose the service option that is best for them.
• Energy retailers purchase electricity through a combination of long-term contracts with the generation companies and short-term purchases through the power pool. Retailers then sell the electricity they have purchased to consumers, either at the Regulated Rate Option (RRO) rate or under unregulated contracted terms with competitive retailers. (Source: Alberta Utilities Commission)

What’s the role of government in the market?

• In Alberta, no part of the electricity system is owned or operated by the provincial government. Our electricity system has always been a mixture of privately and municipally-owned facilities. The Alberta government establishes a framework that encourages investment, innovation, efficiency and competition in the market place. (Source: Alberta Energy – Electricity)
• There is also a robust regulatory regime in place to protect the interests of Albertans.

What’s the role of regulators in the market?

• There is a robust regulatory regime in place to protect the interests of Albertans.
• There are four electricity regulators in Alberta:
  - Utilities Consumer Advocate (UCA) provides information and advice, and represents your interests in Alberta’s electricity and gas markets. http://ucahelps.alberta.ca
  - Alberta System Operator (AESO) is responsible for the safe, reliable and economic planning and operation of the Alberta Interconnected Electric System. www.aeso.ca
  - Balancing Pool manages the financial accounts arising from the transition to a competitive generation market on behalf of electricity consumers; and meets any obligations and responsibilities associated with both sold and unsold Power Purchase Arrangements (PPAs). www.balancingpool.ca
  - Market Surveillance Administrator (MSA) is in place to monitor Alberta’s electricity and natural gas markets for fairness and balance in the public interest. http://albertamsa.ca
Who are the consumers in the Alberta market?

• There are two classes of consumers in Alberta:
  a) Consumers who purchase less than 2,500 gigajoules (GJ) of natural gas or 250,000 kilowatt-hours (KWh) of electricity per year. This includes most households, farms and small industrial and commercial businesses such as office buildings, restaurants and small shopping centres. Customers who consume less than 250,000 kWhs per year are eligible for the regulated rate option.
  b) Consumers who purchase more than 2,500 gigajoules (GJ) of natural gas or 250,000 kilowatt-hours (KWh) of electricity per year. This may include industrial and commercial businesses and manufacturers.

• Retail customers generally have two options when buying electricity. Customers may consider the service options offered by the several retailers in the market and lock-in their electricity rates by signing a contract. Customers also have the option of accepting the regulated electricity rate, which fluctuates monthly according to prevailing market price.

What is TransAlta’s role in the Alberta electricity market?

• TransAlta is a power generator, electricity marketer and retailer in the Alberta market.
• As a power generator, we own and operate over 70 facilities in Canada, the United States and Australia. Our diverse fuel sources are natural gas, coal, wind, hydro and geothermal. In Alberta, we fully own or are partners in 35 facilities.
• As an electricity marketer, we buy and sell electricity that is managed by the AESO. For more information, visit www.aeso.ca.
• We also sell electricity directly to businesses and industry.

How Price is Set

How are prices established in Alberta for residential customers?

• Alberta residential consumers receive their power either via contracts signed with electricity retailers or via the Regulated Rate Option (RRO). Prices available to customers are always related to the prevailing wholesale market prices.
• The RRO can be thought of as the ‘default’ option available to all residential customers, The rate is established on a month-ahead basis and is approved by Alberta’s electricity regulator.
• Customers can also choose to enter into a contract with any one of the retailers present in the market. Retailers offer a wide variety of price and service options. While retail prices ultimately relate to the prevailing wholesale price, retail price plans can often be less than the RRO depending on the terms of the retail contract.

What are wholesale electricity prices influenced by?

• Wholesale power prices are influenced by a range of factors, including elements like weather and natural gas prices. However, the key factors influencing prices are supply and demand.
• In Alberta, the fast-growing economy has increased electricity demand, and this has influenced prices in the province.
How is price set in regulated markets?

- In regulated markets, the utilities compile all of their annual costs needed to pay down their new and old transmission facilities and their new and old generation facilities. This is called their annual ‘revenue requirement’.
- It includes fixed cost, variable costs, operating and maintenance costs and cost of debt and equity.
- The revenue requirement is then divided by the consumption and charged to customers.
- Prices rise as new investments are built and decline over time as those assets are depreciated.
- It is also true that when demand falls, during recessions for example, rates rise as the money needed to meet the annual ‘revenue requirement’ is fixed. In other words, the numerator (‘revenue requirement”) is fixed, even if the denominator (consumption) falls.

How do Alberta electricity prices compare to other provinces?

- Alberta’s wholesale power prices are competitive, even when compared against provinces which have abundant, low-cost hydro resources - like BC and Quebec.
- Alberta’s wholesale prices are in the middle of the pack even though our economic growth, and therefore our power demand, has exceeded all other provinces.
- Prices are established primarily on the basis of supply and demand. In Alberta, the fast growing economy has increased electricity demand, and this has influenced prices in the province.
- However, when demand is lower, prices also decline. This was evident during the recent economic slowdown when prices in Alberta declined.

![All-in Rate Comparison - Industrial Customers](source: London Economics, 2011, includes 2010 announced increases)
Assessing the Albert Electricity Market

Is the Alberta electricity market working?

- Yes. Generators, including TransAlta, continue to add new capacity to meet increasing demand. Power rates are competitive, and consumers can choose electricity plans that work best for them.
- Customers, generators, retailers and policy makers all have a role to play to ensure the market continues to function well.
- Generators are actively working to add capacity to the market in order to meet demand. As an example, in September 2011 TransAlta brought online its new Keephills 3 generation plant, one of the most advanced coal-fired plants ever built in Canada. This is a 495 megawatt facility that produces 24 percent less emissions.