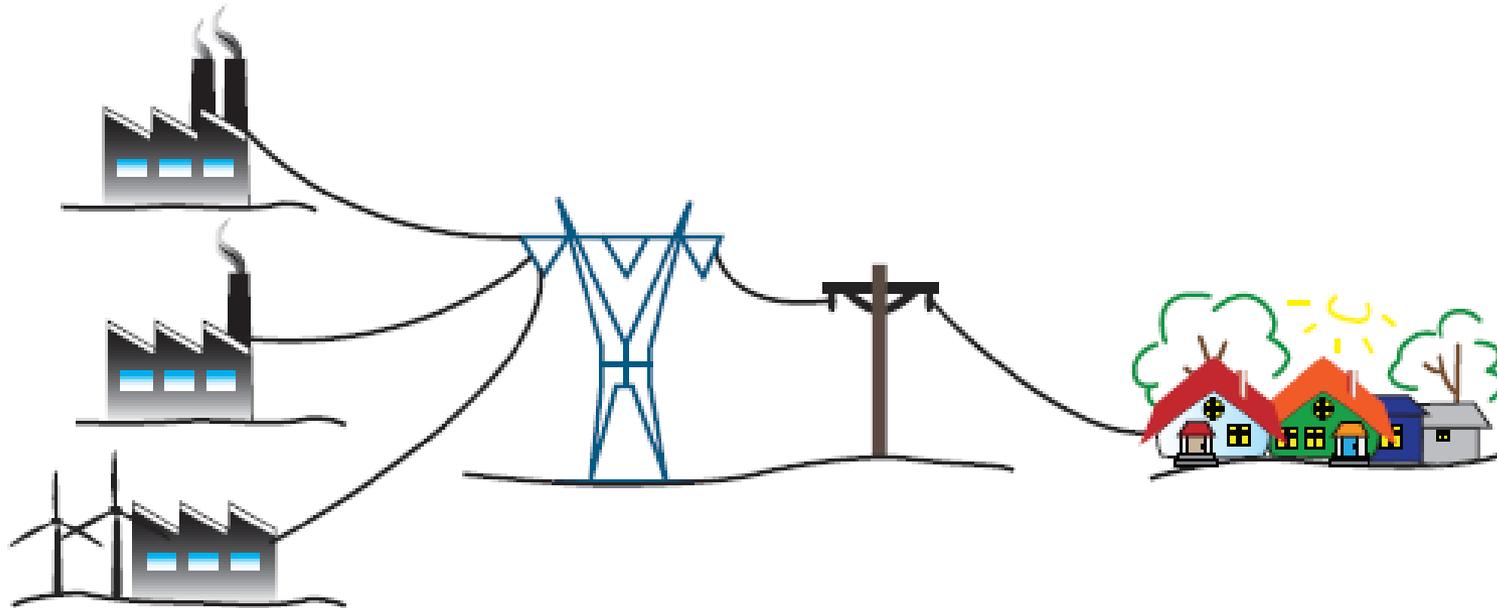


Alberta's Electricity Regulatory System

April 14, 2016

Electricity System Overview



Generation

- Competitive/market based
- Private investment
- Energy only market design

Transmission

- Fully regulated
- Cost-of-Service Model
- One rate for Albertans

Distribution

- Fully regulated
- Supports retail competition

Retail/Customer

- Partially deregulated
- Competitive Contracts
- Regulated rate option for small consumers

Power Sector Legal Framework in Alberta

Relevant Acts

(Electric Utilities Act, AUC Act, ALSA, EPEA, Fair Trading Act)

Lieutenant Governor in Council

- Approves Lieutenant Governor in Council regulations
- Appoints AUC Commissioners

Minister of Energy

- Approve Ministerial regulations
- Appoints AESO and Balancing Pool board members, and MSA
- Establish & operate programs within the Ministry's mandate

Regulations

Balancing
Pool

Alberta Utilities
Commission (AUC)

Alberta Electric System
Operator (AESO)

Market Surveillance
Administrator (MSA)

Rules – AUC & AESO

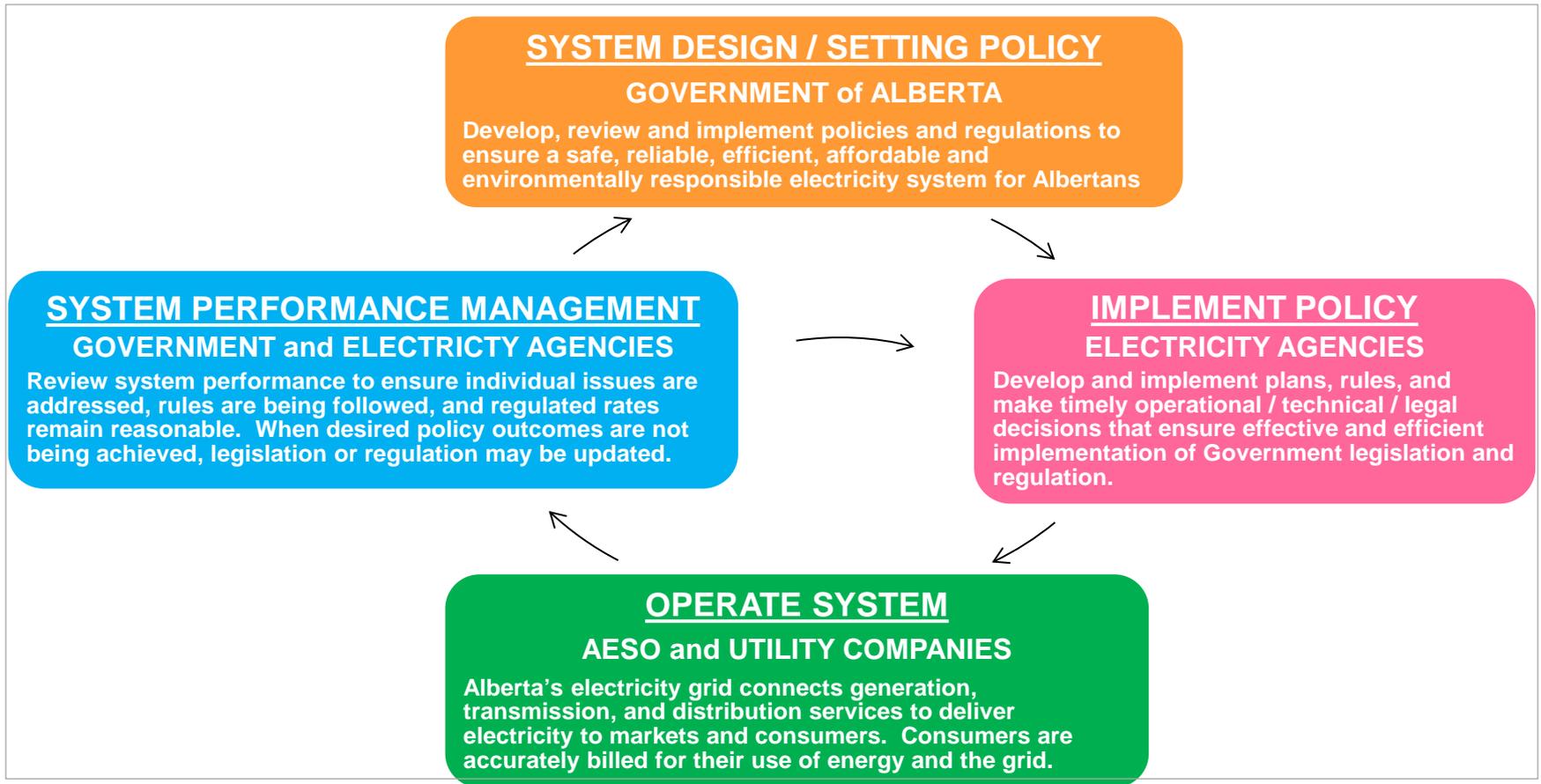
Generators

Transmission
operators

Distributors

Retailers

Electricity System Responsibilities



Government Department Roles

Department of Energy

- Enables sustainable and effective energy...development that considered the social, economic and environmental outcomes Albertans want.
- Develops strategic and integrated policies and plans for sustainable energy...
- Ensures Alberta has adequate electricity generation, transmission, and distribution

Department of Agriculture and Forestry

- Oversees governance of rural utility boards such as Rural Electrification Associations and gas co-operatives under the *Rural Utilities Act*.

Service Alberta

- Regulates energy marketers under the *Fair Trading Act*.
- Includes the Office of the Utilities Consumer Advocate (UCA), mandated under *Government Organization Act* to:
 - Represent the interests of Alberta residential, farm, and small business consumers of electricity and natural gas before proceedings of the Alberta Utilities Commission and other bodies...
 - Disseminate independent and impartial information about the regulatory process relating to electricity and natural gas...
 - Inform and educate consumers about electricity and natural gas issues.
 - Other responsibilities...as the Minister determines, ie. mediation of disputes between consumers and energy retailers.

Electricity Agencies' Roles

ALBERTA UTILITIES COMMISSION (AUC)

- Independent, quasi-judicial agency established under the *Alberta Utilities Commission Act*
- Regulates the utilities sector, natural gas and electricity markets to protect the social, economic and environmental interests of Alberta where competitive market forces do not.

ALBERTA ELECTRIC SYSTEM OPERATOR (AESO)

- Not-for-profit organization created under the *Electric Utilities Act* mandated with four primary functions:
 - *Operate an open and competitive wholesale market*
 - *Direct the safe and reliable operation of Alberta's electric system*
 - *Plan and develop the transmission system*
 - *Provide customer access to the transmission system*

BALANCING POOL (BP)

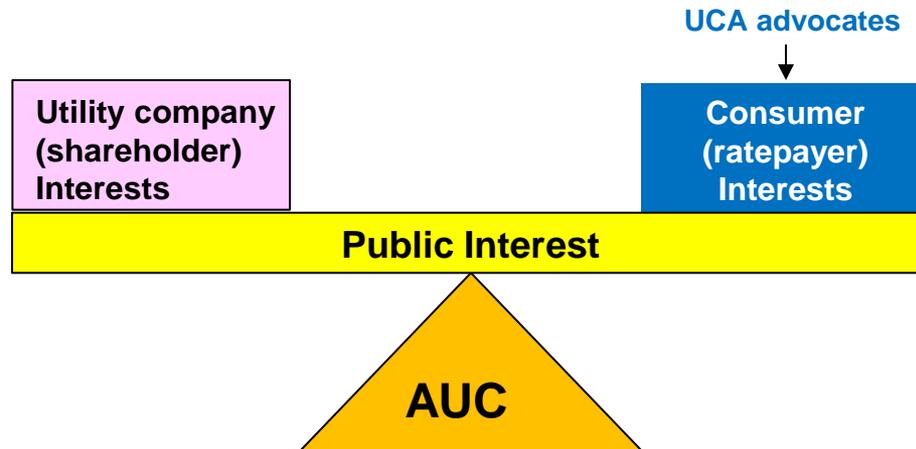
- Corporation established under the *Electric Utilities Act* mandated with:
 - Managing the financial accounts arising from the transition to a competitive generation market on behalf of electricity consumers.
 - Meeting obligations and responsibilities relating to Power Purchase Agreements.

MARKET SURVEILLANCE ADMINISTRATOR (MSA)

- Enforcement agency that protects and promotes the fair, efficient, and openly competitive operation of Alberta's wholesale electricity markets and retail electricity and natural gas markets.

AUC - Regulatory Process

- The Alberta Utilities Commission (AUC) regulates the utilities sector and natural gas and electricity markets to protect social, economic and environmental interests of Alberta where competitive market forces do not.



- The **Utilities Consumer Advocate (UCA)** represents the interests of residential, farm, and small business **consumers** in regulatory proceedings.

Competitive vs Regulated Monopoly Model

- In a regulated monopoly model, an external regulator (ie. AUC) ensures delivery and costs of essential services are just, reasonable, and in the public interest.

	Competitive Business Model	Regulated Monopoly Model
Step 1	$\text{Price (Competitive)} \times \text{Quantity} = \text{Revenue}$	$\text{Return on Equity (\%)} \times \text{Equity (Common Shares)} = \text{Return \$}$
Step 2	$\begin{aligned} & - \text{Cost of Goods Sold} \\ & - \text{Depreciation} \\ & - \text{Interest} \\ & - \text{Taxes} \\ & = \text{Net Income} \end{aligned}$	$\begin{aligned} & + \text{Taxes} \\ & + \text{Interest} \\ & + \text{Depreciation} \\ & + \text{O \& M} \\ & = \text{Revenue Requirement} \end{aligned}$
Step 3	$\div \text{Equity} = \text{Return on Equity (\%)}$	$\div \text{Quantity} = \text{Price (Regulated-rates)}$

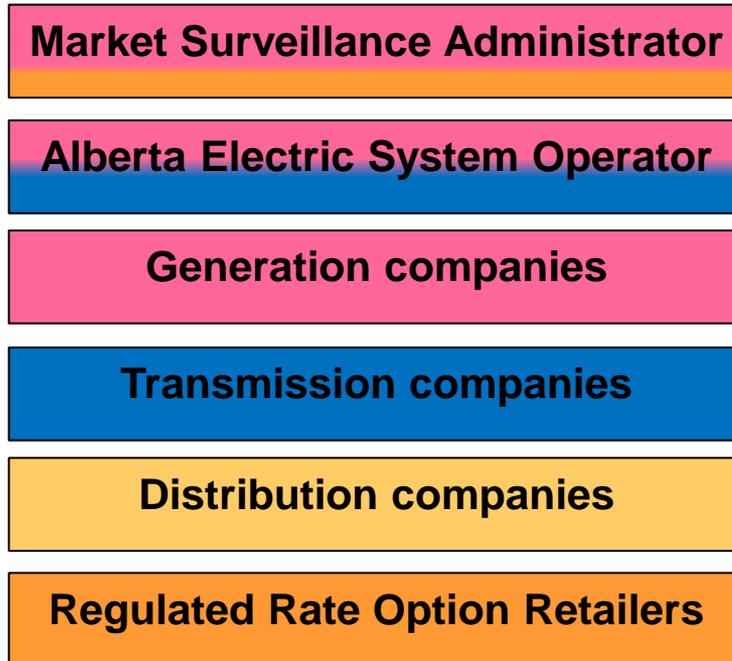
Alberta Utilities Commission -

3

Areas of Regulatory Oversight

Electricity Supply Chain

- GENERATION
- TRANSMISSION
- DISTRIBUTION
- RETAIL



Rates	Facilities	Markets
Impacts Customers	Impacts Landowners & Generators	Impacts Generators & other market participants*

AUC Regulatory Process – Rates Applications

1. Applicant (utility) files application.
2. AUC reviews the application [and ensures it is complete].
3. AUC issues a notice of application on its website, and sometimes in local newspapers.
4. Parties with concerns or objections respecting the application must register and submit a Statement of Intent to Participate (SIP).
5. Discovery Process – information is exchanged between the applicant, interested parties, and the AUC. Interveners may also submit evidence.
6. Resolution of the Process through:
 - a. negotiation
 - b. written submissions
 - c. oral hearing and/or final written submissions
7. AUC issues decision. (usually within 90 days of the close of a hearing.)
8. Applicant or intervener may request a review and variance by the AUC, or file an appeal in court.

Regulatory Rate Proceeding – Content

- Most rate proceedings involve a detailed examination (and cross-examination) of the evidence supporting the applicant's financial estimates for each of the component's of its price model.
- Interveners (and AUC staff) will scrutinize these estimates using legal, technical, and financial experts; may ask for additional information, and may present evidence that challenges the applicant's estimates and assumptions.
- The examination will be broken down into issues based on the component estimates and evidence provided.
- The AUC must weigh evidence and arguments by all parties before making decisions on the issues raised and on the overall rate application.
- AUC decisions will normally document the evidence and the rationale that led to the decision on the rate and its component parts.

Regulated Monopoly Model

$$\begin{aligned} & \text{Return on Equity (\%)} \\ & \times \text{Equity (Common Shares)} \\ & = \text{Return \$} \\ & + \text{Taxes} \\ & + \text{Interest} \\ & + \text{Depreciation} \\ & + \text{O \& M} \\ & = \text{Revenue Requirement} \\ & \div \text{Quantity} \\ & = \text{Price (Regulated-rates)} \end{aligned}$$

CONCLUSION

- **There is a robust electricity regulatory system in place in Alberta to ensure the electricity system is safe, reliable, affordable, efficient, and sustainable.**
- **Government sets the policy direction through legislation and regulation.**
- **The AUC has the principle regulatory oversight role in the system.**
- **The AUC has robust evidence-based regulatory processes in place to ensure utility and ratepayer interests are appropriately balanced within the broader public interest.**
- **AUC proceedings are resource-intensive processes, reliant on expert analysis, that ensure complex technical, financial, and legal decisions are made in a timely fashion so the electricity system can operate efficiently.**