



# Air Quality Issues and the ERCB

## Presentation to the CASA Coordination Workshop

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# ERCB Background

# Mandate

**Regulate the safe, responsible, and efficient development of energy resources to move them to market, taking into consideration:**

- Protection of Public Safety
- Environmental Protection
- Energy Resource Conservation

# Mandate

**Consider environmental, social, and economic factors:**

- Emissions
- Land Use
- Disturbance
- Benefits/costs
- Impacts
- Infrastructure
- Risks
- Lifestyle

# What We Regulate

**Producing Oil  
& Gas Wells**

176 166

**Pipelines**

419 146 km

**Gas processing**

955 plants

**Oil sands**

49 commercial plants

(41 in situ, 8 surface mines)

134 primary recovery projects (in situ)

8 enhanced recovery projects (in situ)

13 experimental projects

# What We Regulate

**Batteries** 15 262

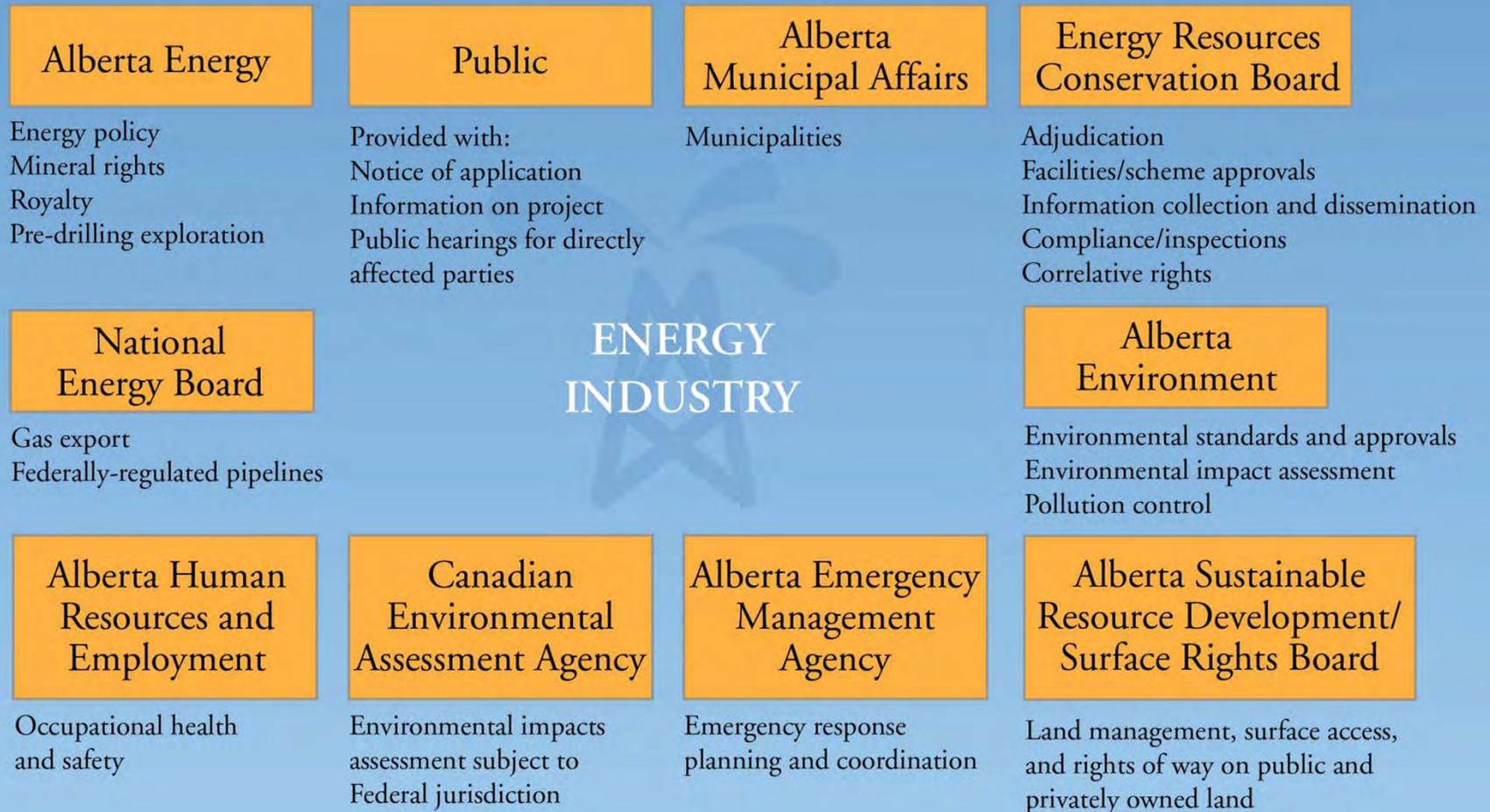
**Compressor stations** 5 446

**Coal mines**  
10 open/strip pits  
2 small open pits  
1 underground

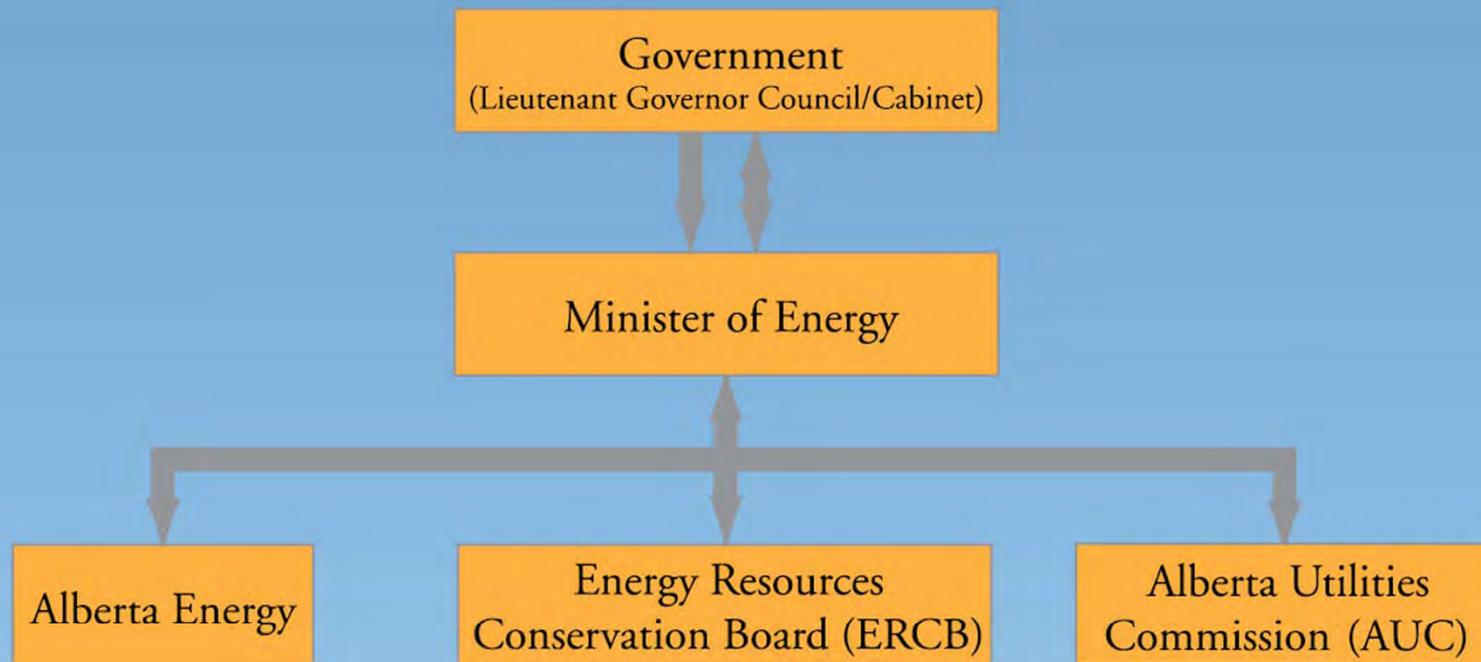


# Energy Regulation

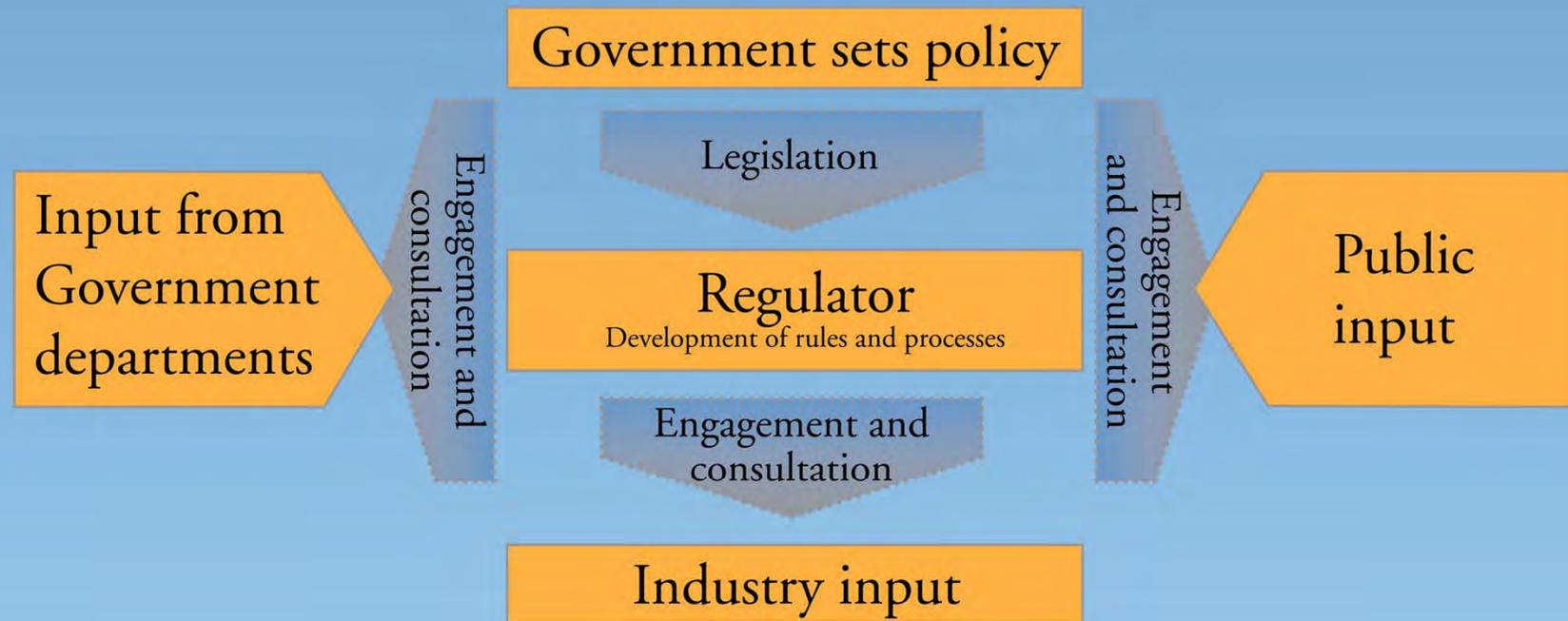
# Key Energy Industry Regulatory Interfaces



# Energy Portfolio in Alberta



# Regulatory Framework



# Field Surveillance and Operations

- Respond to incidents
- Includes inspections, enforcement and compliance related to:
  - Oil and gas production facilities
  - Pipelines
- 98.6% compliance rate in 2009

# 2009 Hearings

- 30 615 applications submitted
- Appropriate Dispute Resolution 86% success rate
- 14 resulted in a hearing (21 in 2008)



# Air Quality

# Objections—Where Air Issues Rank

- Of the 48 common objections to energy developments, 4 relate to air quality

These are:

- Dust
- Emissions
- Flaring
- Odour

# Landowner Concerns—Dust

- Dust issue due to increased traffic associated with projects
- The ERCB has no regulatory jurisdiction over dust or roads
- Companies often address dust concerns, but not something the ERCB can regulate

# Flaring and Venting

- Flaring in Alberta has been reduced by 77 per cent since 1996
- Venting has been reduced by 41 per cent since 2000
- ERCB is a recognized global expert in flaring reduction

# Stroscher Report

- Alberta Research Council Report (“Stroscher report”) identified harmful emissions when combustion efficiency of flares was poor
- Subsequent U of A research showed connection between heating value and combustion efficiency
- Researchers provided a value to ensure good combustion
- ERCB adopted the value on CASA’s recommendation

# Stroscher Report

Report states:

- “These reactions and their products are not unique to flaring and can also occur in other combustion processes”
- “The addition of liquid hydrocarbons impaired the ability of the flame....”
  - ERCB has requirements for liquids removal
- “Dispersion modelling predicted that ambient air concentrations are expected to be low in relation to ambient air quality criteria.”

# Stroscher Report

## Conclusion

Flaring reductions have dramatically improved, so perhaps we should re-examine our priorities

All involved must work to see that the facts on flaring take root with the public so we're able address other air quality issues

# Venting

Continue to prioritize on gas venting associated with crude bitumen/heavy oil

Issues include:

- Venting and non-conservation of solution gas vented at wellhead casing
- Venting from heavy oil tanks as gas volatilizes

# Landowner Concerns—Odours

- Odours a concern for residents
- Odours from facilities and well sites
- Odours from oil and gas trucks traveling on roads
- Some landowners want scientific proof to ensure that emissions aren't harming health or the environment

# Odours

- Directive 60 addresses odours, but requirements are limited to H<sub>2</sub>S odours
- Directive 60 is clear that "Venting must not result in H<sub>2</sub>S odours outside the lease boundary"
- Time to consider more than just H<sub>2</sub>S odours?
- Groups like CASA could consider consistency of odour requirements among various industries

# Air Monitoring

- ERCB has two mobile ambient air monitoring units (AMUs) capable of reading/recording H<sub>2</sub>S and SO<sub>2</sub> emissions in the parts per billion range
- Infrared (FLIR) cameras detect leaks and fugitive emissions at oil and gas facilities
- 744 air monitoring inspections and 246 FLIR inspections in 2009—4 facilities found to be high risk noncompliant
- 2009 provincial compliance: 99.6 per cent

# ERCB Jurisdiction

- We can only regulate where we have jurisdiction
- ERCB not the primary regulator on environmental issues, rather the delivery regulator
- We receive submissions and advice from AENV and other bodies
  - We welcome and value these inputs

# Conclusion

- Public is concerned about air quality
- Flaring—time to re-examine our priorities
- ERCB jurisdiction does not include all aspects of energy development
- We welcome and value input from other government bodies

# Questions?

[www.ercb.ca](http://www.ercb.ca)