



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

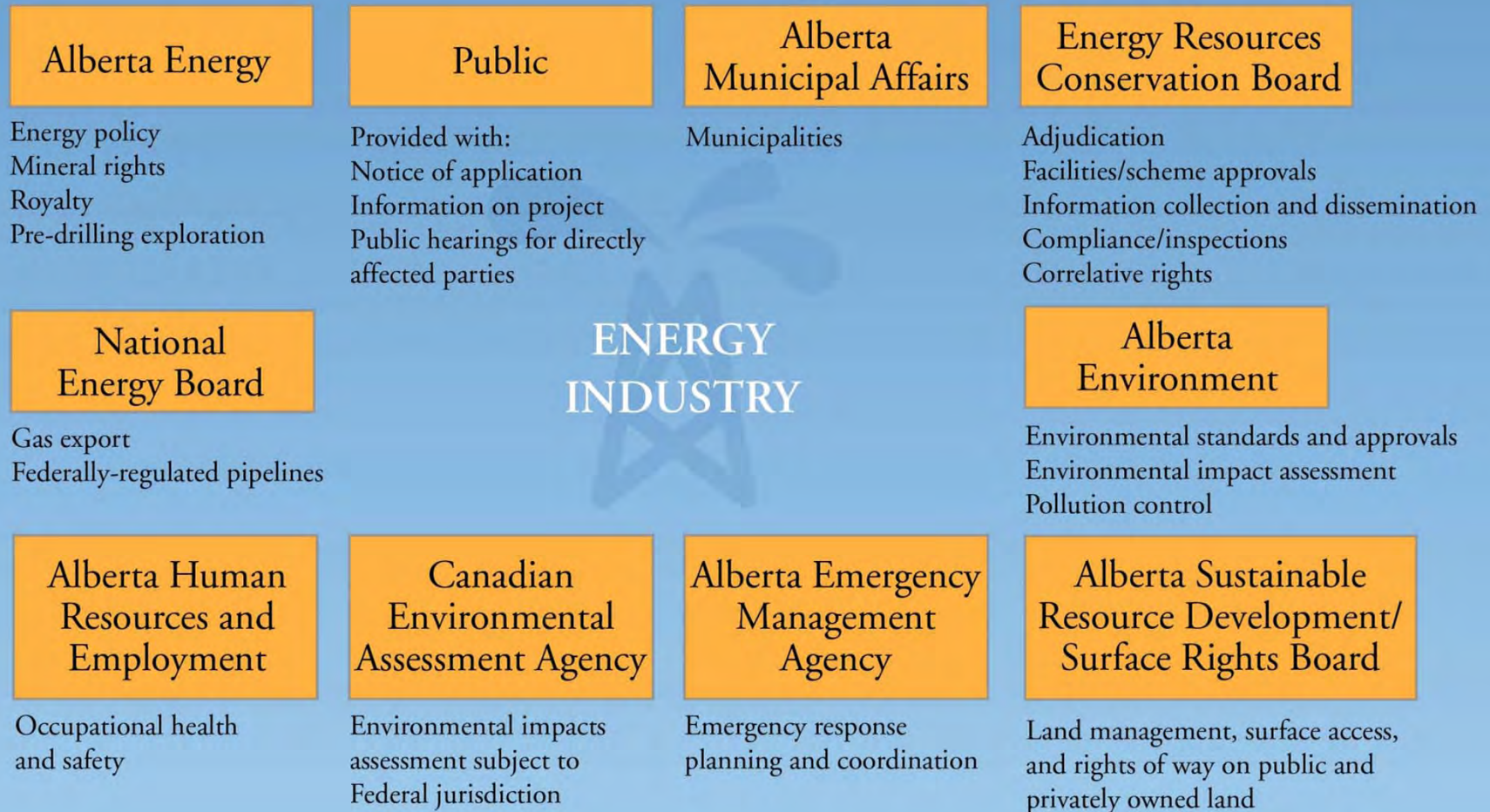
Compressor stations 5 446

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

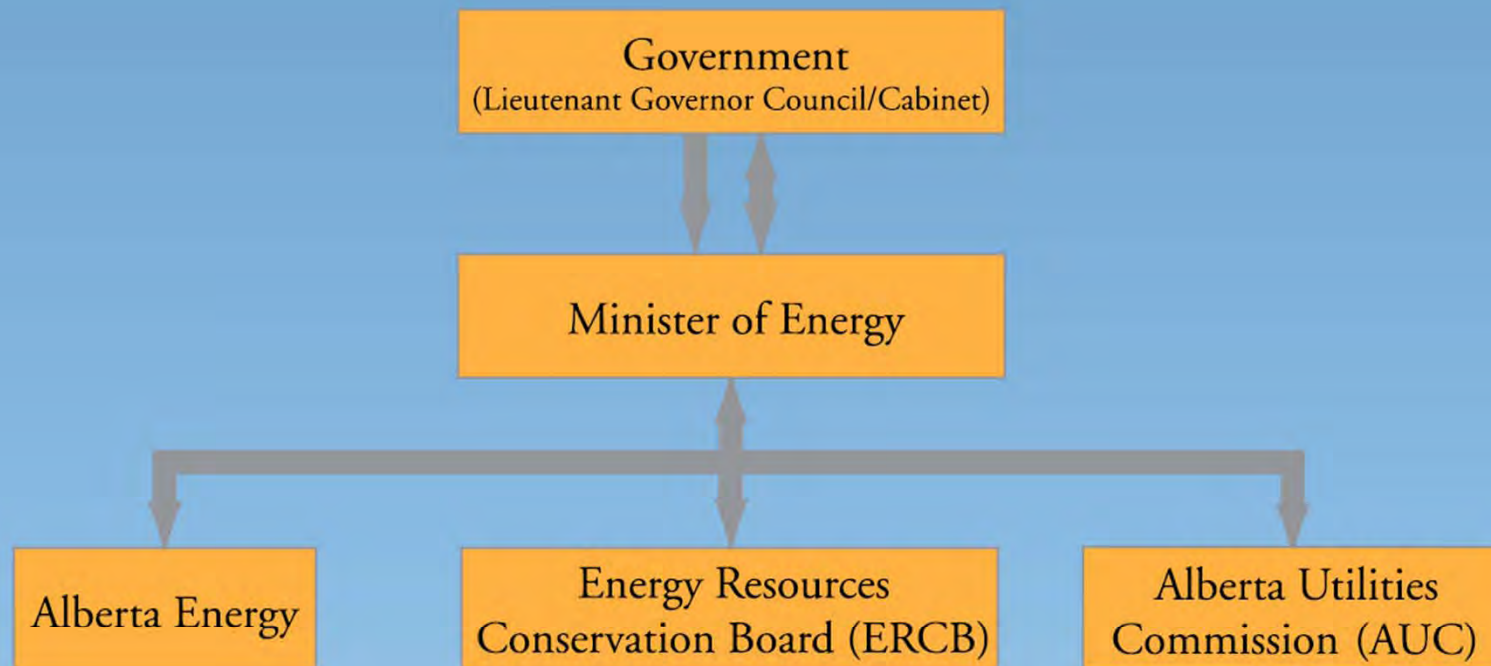


Energy Regulation

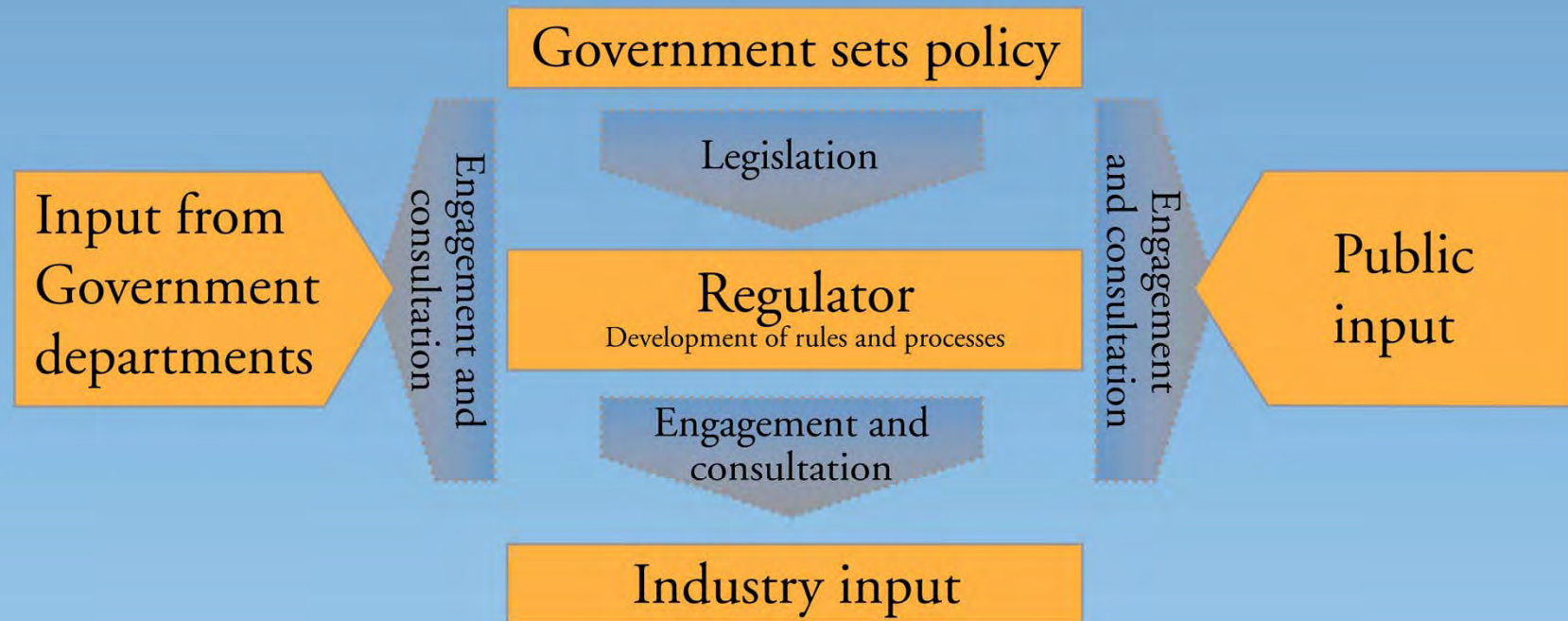
Key Energy Industry Regulatory Interfaces



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 H₂S odours
- Directive 60 is clear that "Venting must not result in H₂S odours outside the lease boundary"
- Time to consider more than just H₂S 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 H₂S and SO₂ 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?

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