

# Minutes



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## *Electricity Framework Review Project Team, Meeting #8*

Date: Thursday & Friday, November 28&29, 2013

Time: 9:00 am to 5:00 pm, 9:00 am to 3:00 pm

Place: CASA office, Edmonton

### **In attendance:**

<b>Name</b>	<b>Stakeholder group</b>
Ahmed Idriss	Capital Power
Anamika Mukherjee	CAPP
David Lawlor	Enmax
Don Wharton	TransAlta
Kristi Anderson	Mewassin Community Council
Randy Dobko	Alberta Environment and Sustainable Resource Development
Shaun McNamara	Milner Power Inc.
Rob Watson	Milner/Maxim Power
David Spink	Prairie Acid Rain Coalition
Tim Weiss	Pembina
Wayne Ungstad	Ponoka Fish and Game
Brian Jackowich	Alberta Urban Municipalities Association
Tom Marr-Laing	Pembina Institute
Al Schulz	CIAC
Jim Hackett	ATCO
Njoroge Ngure	TransCanada
Krista Brindle	Alberta Energy
David James (AM Day 1 only)	Albert Energy
Daniel Johnston	Facilitator
Celeste Dempster	CASA

### **Guests:**

<b>Name</b>	<b>Stakeholder group</b>
Peter Moore	Alberta Energy
Sushmitha Gollapudi	Alberta Environment and Sustainable Resource Development
Stephen Dobson (AM Day 2 only)	Alberta Environment and Sustainable Resource Development

### **Regrets:**

<b>Name</b>	<b>Stakeholder group</b>
Srikanth Venogopal	TransCanada
Leonard Standing on the Road	Ponoka Fish and Game
Rod Crockford	ENCANA
Andre Chabot	Alberta Urban Municipalities Association
Steven Flavel	Alberta Energy

<b>Action items</b>	<b>Who</b>	<b>Due</b>
1.10: Provide an update on discussions regarding contributing funding to the team.	Jim/Robyn	Update at next meeting
5.7: Ensure that a review of the implementation of recommendations is discussed.	Robyn	Meeting 9
5.8: Organize presentation on the Emissions Trading System from Stephen Dobson.	Robyn	Meeting 8
5.9: Ensure that development of a PM Management System for existing units is discussed.	Robyn	Meeting 9
7.1: Follow-up with Allen Crowley (EDC) to provide a longer term graph for "AIES Energy Production Forecast".	Robyn	ASAP
7.2: Distribute Allen's presentation.	Robyn	ASAP
7.3: Distribute Ahmed's presentation.	Robyn	ASAP
8.1: Kristi and Krista will prepare wording around a smart grid recommendation as per discussions at meeting 8.	Kristi, Krista	Meeting 9
8.2: Celeste will share the 'options' presentations from meeting #8, day 1.	Celeste	ASAP
8.3: Celeste will share the AESRD presentation on the emission trading system.	Celeste	ASAP
8.4: Randy will obtain the registry data for distribution to the team.	Randy	ASAP
8.5: Each champion will prepare a more detailed exploration of their assigned option for discussion at meeting 9.	Various, see 'Next Steps' section	3 January 2014
8.6: Celeste will poll for dates for meeting #9.	Celeste	ASAP
8.7: Celeste will prepare a one-page update on meeting #8 for the CASA Board meeting.	Celeste	ASAP

One Day 1 the meeting convened at 9:00 am and adjourned at 4:45pm. On Day 2 the meeting convened at 9am and adjourned at 1pm. Quorum was achieved on both days.

## Introduction

The group did a round-table of introductions. The meeting objectives and agenda were approved as presented.

The objectives for this two-day meeting were:

- To identify, on a without prejudice basis, potential options that may address potential issues related to the implementation of the federal GHG Regulations together with the CASA framework.
- To undertake an initial consideration of how each of these options potentially address the range of interests represented by team members.

The Government of Alberta provided a statement to the team:

- The CASA EFR team is the government's preferred forum for discussion regarding the emissions management framework for the Alberta electricity sector,
- The GoA is committed to exploring options through a without prejudice discussion to uncover the range of interests and perspectives, and
- An earlier outcome from the team will help to inform thoughtful policy decisions from the GoA.

## 'Options' Presentations

The team heard presentations on a range of options that may address potential issues related to the implementation of the federal GHG Regulations together with the CASA framework. The team then discussed each option on a without prejudice basis to develop a common understanding of the specifics/nature of the option and some of its relative pros and cons. The following options were presented and discussed:

### Option 1: Fleet vs unit treatment

The CASA Framework would operate on a fleet rather than a unit basis based on the idea that compliance achieved on a fleet basis gives greater operational and economic flexibility.

#### *Group Discussion:*

- This concept could work based on intensity, but combining this option with a mass-based approach would create clear, absolute emissions levels within the CASA Framework. For it to function on an intensity basis would require additional work to figure out the details.
  - The team noted that there is a link between this option and Option 8 (Mass-based approach).
- The absolute numbers could be developed by aggregating unit emissions profiles based on the existing CASA Framework, BATEA and GHG regulations.
- If there were a corporate cap based on existing units, there would need to be a mechanism to respond to growth while continuing to reduce emissions over time.
- There would need to be ancillary airshed management to address any regional differences that may result from fleet treatment.
- A concern was expressed that this option would discourage new units from coming into the market and encourage older units to stay in the market. The unit treatment of the current CASA Framework provides a market signal about when retrofits will occur.
- PPA restrictions would still exist under the fleet treatment.
- Under the current CASA Framework, at end of design life units are expected to put forth effort resulting in considerable reductions. Under fleet treatment this would no longer be required.

### Option 2: Early shutdown

Early shutdown of coal-units in advance of end of life (as defined by the federal GHG regulation) would create reductions in advance of reductions anticipated in the CASA Framework. Reductions from early shutdown could be used to generate credits for future compliance or transacted to other entities. The CASA Framework does not currently incent early shutdown.

#### *Group Discussion:*

- There will be a variety of perspectives on how to quantify the number of credits received for early shutdown.
- There would need to be balance between providing enough incentive to encourage early shutdown and maintaining environmental integrity.
- How does this option impact emissions levels?

### Option 3: Temporary shutdown

This is a high level idea for a flexibility mechanism that would encourage voluntary action to reduce emissions by recognizing actions that result in actual emission reductions. Rather than stand alone, this idea could be integrated as a part of other options.

*Group Discussion:*

- The details around the implementation of this option would need to be within the rules of the energy market.
- Would need to determine what scenarios are considered “temporary shutdowns” (e.g. would equipment failure be included).
- This mechanism is intensity-based.

Option 4: Market mechanisms enhancement

a) Look to Specific Gas Emitter Regulation (SGER)

This option proposes the establishment of a tech fund (similar to SGER) that sets a backstop for SO<sub>2</sub>/NO<sub>x</sub> credits. A facility could then make an application to receive money from the tech fund to put towards installing emission reduction technology.

*Group Discussion:*

- Price paid into the tech fund would be based on full cost recovery for the application of emission reduction technology to a pre-existing facility. Currently there is no price set for credits which makes transactions difficult. Setting the price would be very important as it would be used to calculate and make financial decisions.
- The tech fund would build up fairly quickly.
- Applications through a third party tech fund would mean less reliance on interactions with competitors.
- How would you decide who pays into the fund and who receives money from the fund?
- How would the fund translate into overall reductions in emissions? Rules would need to be in place to ensure that reductions occur.
- Would need to make sure that credits aren't double counted.
- There should not be the perception that it is possible to pay to be in non-compliance; rather this a way to move capital more efficiently.
- What would be the interchangeability between NO<sub>x</sub> and SO<sub>x</sub>?

b) SO<sub>2</sub>/NO<sub>x</sub> fungibility

This option would create provisions for the interchangeability of SO<sub>2</sub> and NO<sub>x</sub> credits.

*Group Discussion:*

- It would help to improve liquidity and flexibility in the market place.
- Conceptually makes sense but would need to work out the details.
- Would need to be able to demonstrate emissions reductions to the federal government.
- Expands the market with natural gas producers and adds flexibility about what reduction technologies can be installed.
- This would be a good time to consider this option as no credit transactions have been made yet.
- Could lead to pressure to lower BATEA standards (lower standards would allow for more credit generation).

c) Expand trading regulation

This option would increase the number of market participants by including source offsets from non-regulated industries (similar to SGER).

*Group Discussion:*

- The team discussed if there was opportunity to generate SO<sub>2</sub> and NO<sub>x</sub> credits since all regulated sectors already have emissions reductions obligations.
- Would need to establish protocols for generating offsets in sectors that don't have a requirement already to do so.
- Option 7 (Renewable energy and natural gas credits) could be grouped with this option.
- May be issues around the optics of the electricity sector being seen to support other sectors and/or subsidizing renewables in a deregulated market.
- Could create regional differences.

Option 5: Timing of reductions

This option is still in the early stages of development. It focuses on the idea of discounting and that money is worth more now than in the future.

*Group Discussion:*

- This idea focuses on valuing reductions differently depending when they take place (i.e. a reduction now is worth more than a reduction taking place in the future).
- This idea could be linked to Option 2 (Early shutdown). This option could be used to enhance other options rather than stand on its own.

Option 6: Early imposed end of life credit

This option is related to Option 2 (Early shutdown). Under the GHG regulation, there are several units that have been given an end of life date of less than 50 years (e.g. 46 years). This option would allow such a unit to generate credits for that difference (e.g. 50-46 = 4 years worth of credits). These credits could be used in the time the unit operates before end of life.

*Group Discussion:*

- There was some discussion about how different units were assigned their end of life dates. Some dates may be related to the 2020 federal GHG targets.
  - It was noted that if these end of life dates (e.g. 46 years) are the new business as usual then it would not make sense to generate credits in this way.
  - This option could capture the variation in end of life dates and incorporate it into the Framework.
- Would need to make sure that this option aligns with regulation.
- There were concerns from some team members that generating credits from policies that go beyond the CASA Framework could set a precedent and undermine the Framework. There were also concerns that this option would not contribute to a case for equivalency for Alberta with the federal government.
- Other team members noted that the federal government's policy was built in an ad hoc manner so it would make sense to compensate for this within the CASA Framework.

Option 7: Renewable energy or natural gas credits

This option extends the creation of credits to non-regulated entities (similar to SGER).

*Group Discussion:*

- It would be useful to understand how SGER developed their process and what the regulation specifically says.
- Would need to work out the details of how credits are generated and who is generating credits.
- It could provide extra support to certain producers in a deregulated market.
- The team noted a link between this option and option 3c (Expand trading regulation).

Option 8: Mass-based approach

This option would see the CASA Framework move from an intensity-based approach to a mass-based approach. An option for implementing this option was shared with the team.

*Group Discussion:*

- The team discussed some of the assumptions of the modelling from the presentation. The team was especially interested in how this approach would affect environmental outcomes.
- The team noted that this option can be linked to Option 1 (Fleet vs unit treatment).
- A concern was raised that a mass-based approach would allow units to bypass early shutdown resulting in less emission reductions.

Option 9: Reasonably achievable control technology (for units at end of design life)

The CASA Framework assumes that there is sufficient time to recoup investments when applying BATEA at end of design life. The GHG regulation changes the amount of time available to recoup investments. This option proposes applying a reasonably achievable control technology (RACT) rather than BATEA at end of design life.

*Group Discussion:*

- With RACT, emissions would still be reduced although not as much as with BATEA.
- Would need to consider the issue of timing as well as the entity that owns the PPA.

Option 10: Smart grid

This option is based on the concept that emissions will be reduced if the grid is more effective.

*Group Discussion:*

- The team determined that this option would be best addressed in another forum and there could be a recommendation put forward articulating the link between the idea of the smart grid and the work of the team.
- The team noted that there may be links to other proposed options (eg. 3 and 4a) that should be understood.

***Action Item 8.1: Kristi and Krista will prepare wording around a smart grid recommendation as per discussions at meeting 8.***

Option 11: Cap and trade

An option was put forward at the meeting of a cap and trade system.

*Group Discussion:*

- The team discussed that there is a mechanism for trade with the current CASA Framework.
- The team discussed if the intent of this option was a cap and trade system in the technical sense or allowing trading within the fleet (see Option 1).

- The team discussed that the requirements of a technical cap and trade system would be onerous.
- Based on this discussion, the team decided that the spirit of cap and trade is already present in the CASA Framework and could be discussed within other options presented today, and that the option of a technical cap and trade does not warrant further discussion.

The team recognized that some of the options were more comprehensive in nature while others may contribute to an integrated suite of options.

The team agreed the identification of additional options at or prior to the next meeting is welcome.

***Action Item 8.2: Celeste will share the ‘options’ presentations from meeting #8, day 1.***

## Presentation on Emissions Trading System

Stephen Dobson from Alberta Environment and Sustainable Resource Development gave a presentation on the Emissions Trading Regulation and Registry. The team had the opportunity to ask questions and discuss:

- The discount appears as a “w” on the credit’s serial number. The discount is not applied until the credit is retired.
- Administering the registry accounts for 20-25% of one AESRD staff person’s time; the rest of the time is spent developing related policy and responding to questions. This does not include IT support for the registry.
  - Expanding the registry to include other sectors would increase administration time. There would also be an upfront need for policy development to create offset protocols for other sources and to expand the setup of system.
- Motivation to create credits is increased when there is certainty that compliance will be enforced.
- The system works best when there are different abatement costs across operators. Economies of scale encourage the operator with the lowest cost to install equipment to generate credits.
  - A barrier to the system is when there is little information available about the abatement costs for each operator. Another challenge is barriers to bilateral agreements.
- It was observed that the current bank of NO<sub>x</sub> and SO<sub>2</sub> credits will run out when demand is predicted to be the highest. This is related to the requirements of the GHG regulation.
  - The end of life stipulated by the GHG regulation will reduce the window during which it is economically viable to install equipment to generate credits.

***Action Item 8.3: Celeste will share the AESRD presentation on the emission trading system.***

***Action Item 8.4: Randy will obtain the registry data for distribution to the team.***

## Next Steps

The next steps are:

1. For each option, a champion was selected to undertake/coordinate a more detailed scoping/examination.
2. At the next meeting, and with the benefit the more detailed scoping of each option, the team will:
  - a) Evaluate each option against the outcomes of the CASA framework as well as practical considerations; and
  - b) Discuss next steps.

The champions were selected as follows:

1. Fleet vs unit treatment (Don)
2. Early shutdown (Don)
3. Temporary shutdown (Don)
4. Market mechanisms enhancement
  - a) Look to Specific Gas Emitter Regulation (SGER) (Rob)
  - b) SO<sub>2</sub>/NO<sub>x</sub> fungibility (Rob)
  - c) Expand trading regulation (Tim)
5. Timing of reductions (tool for future consideration, David L.)
6. Early imposed end of life credit (park for future consideration, Rob – quantify scope and scale of credits)
7. Renewable energy or natural gas credits (Tim)
8. Mass-based approach (Jim)
9. Reasonably achievable control technology (for units at end of design life) (David S. and Ahmed)

Champions will:

- Explore the option in greater detail including appropriate calculations and analysis, while drawing from today's discussions,
- Conduct an initial analysis against outcomes and practical considerations (see below), and
- Provide this information to the team for their consideration in advance of the next meeting.

***Action Item 8.5: Each champion will prepare a more detailed exploration of their assigned option for discussion at meeting 9.***

It was noted that AESRD, as the regulator, will champion program integrity.

In addition to the outcomes approved at meeting #6, the team identified the following practical considerations to consider when evaluating options at the next meeting:

- Degree of effort required to implement the option,
- Relative contribution of this option to the solution, and
- Applicability sector wide.

The next team meeting will be a one-day face-to face meeting in Calgary from 9am to 5pm.

***Action Item 8.6: Celeste will poll for dates for meeting #9.***

The team discussed the update to the CASA Board on December 12, 2013 about the outcomes of today's meeting. A written update will be provided that Tim will speak to at the meeting. The update will provide an overview of the meeting, list the options that will be explored without prejudice at the next meeting, and emphasize the without prejudice nature of the discussions.

***Action Item 8.7: Celeste will prepare a one-page update on meeting #8 for the CASA Board meeting.***