

## New Westminster

May 2, 2017

### 1. Introductions

- a. Attendees are interested in the following topics:
  - i. Renewable Natural Gas (RNG).
  - ii. Coordinating with FortisBC Energy Inc. (FEI) to support economic and population growth while also helping to meet Greenhouse Gas (GHG) emissions reduction targets.
  - iii. Conservation and energy management, especially relating to social housing, education institutions, and municipal GHG emissions reduction targets.
  - iv. Where FEI is evolving in the future and what role it will play in the BC energy landscape.
  - v. How small businesses can be empowered to more easily adapt to energy policy changes and to take advantage of opportunities and support for reducing operations costs via conservation and energy management.

### 2. About FEI

- a. Under regulations by the BC Safety Authority and the BC Oil and Gas Commission, FEI is required to monitor leaks in its distribution system:
  - i. Advanced natural gas meters may facilitate detecting localized natural gas losses.
  - ii. Natural gas meter reading costs are low but advanced natural gas meters may provide environmental and safety benefits.
  - iii. FEI continues monitoring the business case for installing advanced natural gas meters.

### 3. Planning Environment

- a. Historically, natural gas in North America was produced as part of oil extraction and was thus coupled to oil prices and oil extraction rates:
  - i. This relationship has decoupled now.
  - ii. FEI expects a relatively stable natural gas price environment throughout the next ten years.
- b. Is FEI monitoring the environmental footprint of natural gas producers and comparing this to provincial GHG emissions reduction targets?
  - i. Natural gas is monitored for its heat content.
  - ii. The entire downstream market is becoming more sustainability driven and has thus started applying pressure on upstream producers (e.g. to use electric rather than fossil fuel driven production facilities).
  - iii. FEI is considering further tracking as part of its emerging sustainability plan.
- c. Municipalities and Public Sector Organizations (PSOs) are placing greater focus on planning their GHG emissions reduction activities:
  - i. These actors are considering a shadow carbon price of \$150-180 per metric tonne.
  - ii. These entities would appreciate being able to rely on predictably declining carbon intensity of their energy supply at predictably evolving prices; they are particularly interested in RNG.

- iii. FEI's current RNG supply is small but emerging RNG supply technology, such as the ability to cost effectively produce RNG from wood waste, may dramatically increase this supply.
- d. Attendees commented on evolving BC energy policy, building codes, and appliance energy performance requirements:
  - i. Small businesses are exposed to carbon pricing and changing energy performance requirements with little capacity to adapt or take advantage of opportunities:
    - 1. The quickly evolving landscape favors large businesses that have the capacity to understand changes and to adapt.
    - 2. Many businesses do not own the premises from which they operate so they have limited capacity for conservation and energy management.
  - ii. Municipalities are able to use density bonuses to incentivize their residents to adopt new energy performance requirements, such as the BC Energy Step Code.
  - iii. Many contractors, who may be small businesses themselves, do not have the capacity and training required to adapt to changing energy policy and regulatory requirements; this may prevent them from helping their customers adapt to changes.
  - iv. Historically, some voluntary energy performance requirements have resulted in buildings that do not work well; as such, some municipalities, developers and contractors are cautious about adopting voluntary performance requirements.
  - v. A gap exists for centralized information about evolving energy policy and regulatory requirements and for capacity building support that would enable BC residents and small businesses to adapt to changes and to take advantage of opportunities.
  - vi. Large potential exists for energy efficiency retrofits:
    - 1. Retrofits may enable residents and businesses to reduce operations costs and improve living conditions.
    - 2. How can we best aggregate this retrofit opportunity in order for economics of scale to render as much of the retrofit potential cost effective as possible?
    - 3. FEI notes that the carbon tax has helped bolster the cost effectiveness of its conservation and energy management programs and that BC regulation enables FEI to treat investments in conservation and energy management similar to investments in pipeline infrastructure.
- e. Overall, BC requires a diverse and adaptable energy system to support economic growth and GHG emissions reduction targets:
  - i. Economic and population growth depends on reliable energy supply at predictable prices; diversity helps support reliability.
  - ii. At the same time, technological change may lead to drastic changes in our society and economy, so our energy system must be able to adapt accordingly.
  - iii. FEI notes that dual fuel energy systems are becoming increasingly cost effective:
    - 1. These use electricity to meet base load and natural gas to meet demand peaks.
    - 2. Dual fuel systems support diversity and adaptability in a distributed energy system.

- iv. FEI notes that, via FortisBC Alternative Energy Services, FortisBC assesses and develops low carbon energy systems (e.g. waste heat recovery); BC regulation prevents FEI from directly participating in this market).

#### **4. FEI Infrastructure Growth Planning**

- a. FEI does plan to grow its infrastructure and is planning multiple major projects as well as seeking to take advantage of regulatory decisions that facilitate FEI to connect new customers.
- b. FEI is also investigating opportunities to switch remote communities from higher carbon fuel sources to natural gas by transporting LNG to these communities via tanker trucks:
  - i. The economics of this opportunity depend on the cost of higher carbon fuel sources and the scale of the remote community.
  - ii. Supplying RNG to such communities would deliver even greater GHG emissions reductions than supplying conventional natural gas; the economics of RNG supply also depend on the scale of the supply source (aggregating multiple supply sources could help improve economics as long as aggregation costs are low).

#### **5. Closing Observations and Workshop Feedback**

- a. Attendees generally expressed good satisfaction with the workshop and provided the following suggestions for future workshops:
  - i. FEI should consider sending a primer to participants before the workshop.
  - ii. FEI should consider hosting larger workshops.
  - iii. FEI should consider having its registration system automatically send a calendar event to registered participants.
- b. Attendees noted that FEI should promote activities to reduce natural gas upstream GHG emissions.
- c. Attendees supported FEI's plan to pursue establishment of an innovation fund that may enable it to monitor, and where appropriate, support innovative natural gas technologies.