# MINUTES



Subject:	Golden South Wind (GSW) Community Liaison Committee (CLC) Meeting #2
Date and Time:	Tuesday, February 11, 2020; 6:30pm –8:00pm
Location:	Knight's Hall
	St George's Roman Catholic Parish Hall
	325 6th Avenue East
	Assiniboia, SK
Facilitator:	Kathryn Palmer, Dillon Consulting
Attendees:	Kathryn Palmer, Dillon Consulting – CLC Facilitator
	Cathy Zhao (GSW/Potentia Renewables Inc.) – CLC Coordinator
	Ben Greenhouse (GSW/Potentia Renewables Inc.)
	Juergen Kraus (GSW/Potentia Renewables Inc.)
	James Marzotto (GSW/Potentia Renewables Inc.)
	Rory Fletcher (Millennium Land)
	David Berube (Borea Construction) – GSW Construction Contractor
	Larry Foster – CLC Community Member
	Trevor Karst – CLC Community Member
	Ken Bahuaud – CLC Community Member
	Approximately 18 public observers
Regrets:	None

### Meeting Minutes

- 0. Greetings and Instructions for the Public
- 1. Introductions
- 2. Refresher of Role of the CLC

## 3. Project Background and Construction Update

- Construction Update (provided by David Berube)
  - Nearly all access roads and some turbine foundations completed in Fall 2019, with construction shutdown around mid-December 2019
  - o Upcoming construction activities (April December 2020)
    - Construction will resume around April 2020
    - Collector lines, remaining turbine foundations, turbine erections, operations and maintenance building, and substation construction
    - Directional drilling under wetlands and environmentally sensitive areas to occur in spring 2020
    - RM Roads to be completed in early summer 2020 and existing RM roads to be maintained
    - Operations and Maintenance (O&M) building and Substation to be constructed by October 2020
    - Spur line to be built by SaskPower by 2020

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- Equipment will include 2 excavators, 4 dozers, 2 directional drilling rigs, 3 main crawler cranes, and 6 smaller cranes
- Approximately 18-20 semi truckloads for each turbine, with the final turbine assembly to occur on site
- Approximately 250 persons onsite at the height of construction, all requiring a safety orientation
- 4. Review of Action Items from Previous Meeting
  - GSW LP to follow-up with landowner regarding potential mitigation options for the airstrip running from north and south near a proposed turbine site.
    - COMPLETE/OPEN GSW LP in the process of finding a mitigation option with the landowner
  - GSW LP to provide turbine layout maps to members of the public who email a request to assiniboiawind@potentiarenewables.com
    - COMPLETE/OPEN Maps can still be provided to members of the public who request them.
  - GSW LP to provide the Town of Assiniboia office copies of layout maps to be for public distribution.
    - o COMPLETE/CLOSED
  - GSW LP to provide a video or other portrayal of the turbine light flashing pattern to CLC members.
    - CLOSED GSW LP searched extensively for a video but, unfortunately, was unable to locate anything professionally done and representative. If resources become available, they will be shared immediately with CLC members.
  - GSW LP to follow-up with specified landowner to provide exact distances from roads/turbines to their acreage.
    - o COMPLETE/CLOSED
  - GSW LP to consider additional/alternate means of advertising for future CLC meetings.
    - COMPLETE/OPEN GSW LP considered additional means of advertising meetings and added the meetings to the Assiniboia Chamber of Commerce distribution list. It was determined that this, along with the newspaper advertisements and notices in municipal offices were sufficient for the time being. GSW LP will continue to monitor additional/alternate means of advertising as required.
- 5. Review of Submitted Questions
  - What voltage do the Golden South turbines generate?
    - Answer: The Turbine output voltage is 690V and this is usually stepped up to higher voltage via a transformer to match the collection system voltage, which is 34,500 volts (34.5kV). This is then further stepped up at our substation to match the SaskPower grid voltage which is 240,000 volts (240kV).
  - What is the slowest wind speed that the Golden South turbines can operate at?
    Answer: Approximately 2.5m/s or 9 km/hr.
  - What is the fastest wind speed that the Golden South turbine can operate at?

- o Answer: Approximately 25m/s or 90 km/hr.
- Is there a ladder or a lift inside the turbines?
  - Answer: There is usually a ladder inside the turbine with a climb assist, which counters the weight of the climber to allow easier access when carrying extra gear.
- Where are the turbines manufactured?
  - Answer: Like most large complex machines the parts are manufactured in multiple locations and countries. This includes North America, Germany, Denmark, Korea, and China. The turbines are assembled in China into major subassemblies and then shipped to the project site using approximately 18 trailers for each wind turbine. The final assembly is completed at the project site.
- What kind of cables run from the turbines to the substation?
  - Answer: Usually medium voltage underground cables run back to the substation.
- 6. CLC Members Open Discussion and New Questions
  - Rumour in the community that concrete foundations poured last fall were not to standard and had to be removed.
    - GSW/Borea staff clarified that the rumour is false. The concrete undergoes rigorous quality testing and is up to the standard/specifications of the Canadian Standards Association (CSA), as required by the Canadian building codes. Borea and Lafarge (concrete supplier) meet or exceed the CSA standards.
  - Local concrete company burned down. Will this impact construction?
    - GSW/Borea staff confirmed that this will not impact the construction schedule. Although the local company was slated to assist, there are other concrete contractors in place due to the volume and rates of concrete pouring required for the development. The local company will still be involved but not with producing concrete until the new plant is completed.
  - How deep is the cable under the ground?
    - Borea staff indicated that it is approximately 1.2 meters (4 feet) and deeper under linear structures such as roads, utilities, and fibre-optic cables.
  - Will different size of cables be used and what are their sizes?
    - Borea staff responded that around 5 different types of cable will be used. The size of the cables will vary depending on their function and the location where they are required.
- 7. Opportunities for the Public to Speak
  - What is the impact of wind developments on livestock? There are discussions of impacts to dairy cows on other wind developments on the prairies.
    - Answer from GSW: Stray voltage can be an issue for livestock, however it is related to the electrical grid, and not the wind turbines themselves. Sometimes when new generation in the area change the flows in the system it exposes previously unknown weaknesses or deterioration in the system. In these cases a voltage can be present on the ground line/neutral in the distribution system.

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If farm equipment is grounded to waterlines or ground, this voltage can then be present in water troughs or other areas of the facilities. In this case, livestock can sometimes get "tingles", or small shocks from the water troughs, which can contribute to livestock refusing to drink. Because the GSW project is not connecting to the local distribution system, but rather upstream to the transmission system (which is typically maintained to a much higher standard than lower voltage lines), stray voltage in the distribution system is not expected to be an issue.

- What are the opportunities for community investments and donations?
  - Answer from GSW: A community vibrancy fund will be in place after construction is completed. Neither GSW nor the CLC determine how the fund will be used, and that decision is with the local RMs, In the meantime, the community is encouraged to reach out to GSW staff, James Marzotto, with specific requests.
- Is there a GSW/Potentia office in Town?
  - Answer from GSW: The local office was shut down as the construction site started and an office was opened at the construction laydown yard. That office is not consistently staffed over the winter pause. The best way to contact Potentia is by email or phone.
- Are the turbines and associated materials recyclable in the long-term?
  - Answer from GSW: In general, the materials used for the projects are recyclable, with the exception of the turbine blades. The concrete from the foundation can be broken down to aggregates and reused. The turbine towers are made of thick steel which is a very high-value and recyclable material. The magnet in the hub of the turbine is also set to be recycled with the manufacturer as it is highly valuable. The turbine blades, however, are made of fiberglass with wood core and are not currently recyclable.
- What is the lifespan of the turbines?
  - Answer from GSW: Historically, wind turbines have shown a life of 20 years, however, new technology is expected to last at least 25 years, and quite possibly 30 years. The current contract with SaskPower is 25 years.
- The Assiniboia Civic Improvement Association is planning to build a new multi-use building and rink. Current federal grants favour projects with green energy incorporated. Is there any opportunity to partner with Potentia to develop rooftop solar panels or some other green energy at the rink?
  - Answer from GSW: Potentia is a leader in rooftop solar and would be happy to share their expertise and consider potential partnerships. Preliminary building design information would be required. James Marzotto (Potentia) provided his contact information to the member of the public.
  - <u>ACTION</u>: The Assiniboia Civic Improvement Association is encouraged to contact James Marzotto (Potentia) to initiate conversations about the potential for rooftop solar on the proposed new Assiniboia multi-use building and rink.
- Older wind turbines were rated at 1-2 MW, and these seem to be higher, is that correct?

- Answer from GSW: That is correct, these turbines are 4.2 MW each. The new turbine technology allows for bigger turbines that can generate more power. Another new wind development in Saskatchewan is using 5 MW turbines.
- What are the long-term (post-construction) employment opportunities for local people?
  - Answer from GSW: Between 5-10 full time positions are expected to be available. Locals will be most likely be hired as technicians are typically required to be on call at certain times (requiring that they be within a 15-30 minute radius of the development). The turbine manufacturer will be responsible for long term operations and maintenance of the turbines, and they will hire a local Site Manager, a subsequently will hire local technicians. The technicians will require general fitness, mechanical/electrical aptitude, and possibly some formal training, although not necessarily. This hiring will be up to the turbine manufacturing.
- Who is the turbine manufacturer?
  - Answer from GSW: Goldwind. They are the third largest wind turbine manufacturer in the world and are based out of China.
  - When will there be job postings available for the current construction season?
    - Answer from GSW: An open house job fair and/or job postings will be made available this spring. Last year, a couple of local people were hired as labourers to assist with concrete finishing and turbine installation, and this will likely be similar for the upcoming construction season.
    - <u>ACTION</u>: Cathy Zhao (Potentia) will advertise the job fair and/or job postings for the current construction season in a method similar to the way that CLC meetings are advertised, once they become available.
- 8. Timing of Next CLC Meeting
  - CLC Meeting #2 Projected for early Summer 2020
    - Last two weeks of June should be avoided due to a CLC member scheduling conflict.
    - Once the exact date has been determined, it will be advertised in local media and communicated with CLC members directly.
- 9. Review of Action Items
  - The Assiniboia Civic Improvement Association is encouraged to contact James Marzotto (Potentia) to initiate conversations about the potential for a rooftop solar system on the proposed new Assiniboia multi-use building and rink.
  - Cathy Zhao (Potentia) will advertise the job fair and/or job postings for the current construction season in a method similar to the way that CLC meetings are advertised.
- 10. Adjournment

## **Project Contacts**

Contact: Cathy Zhao – CLC Coordinator, Potentia Renewables Inc. Email: assiniboiawind@potentiarenewables.com Phone: 416.703.1911 ext 248

Contact: Kathryn Palmer – CLC Facilitator, Dillon Consulting Email: kpalmer@dillon.ca Phone: 306.975.2080 ext 4416

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