

# MARCH 2014 CONNECTION

## Welcome to 2014!

Although we're on our way to spring, this is my first opportunity to wish all of our friends and neighbours a Happy New Year on behalf of Capital Power and Genesee staff. I hope that this year is off to a good start for you and your family.

Sherritt (the company that owns the Genesee Mine) made an announcement at the end of December that it is selling its entire coal business to Westmoreland Coal and Altius Minerals.

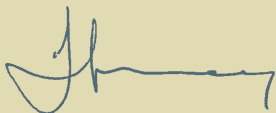
Sherritt's coal mines in Alberta and Saskatchewan are expected to be owned by Westmoreland Coal Co., which is based in Colorado. It currently owns six coal mines in Montana, Wyoming, North Dakota and Texas.

This sale is not expected to affect the operation of the mine. More information on the sale can be found on Sherritt's website: [www.sherritt.com](http://www.sherritt.com)

Work on construction of the AltaLink DC converter station is entering a heavy construction phase that will see an increase in delivery of construction materials; the construction site is located north west of the Genesee site and the access road to the construction site (immediately west of the intersection of 770 and the Genesee bypass road) was recently opened.

This edition of the Genesee newsletter contains a special edition focussing on the G4/G5 progress. We hope you enjoy reading about all we've been busy with over the past few months.

Sincerely,

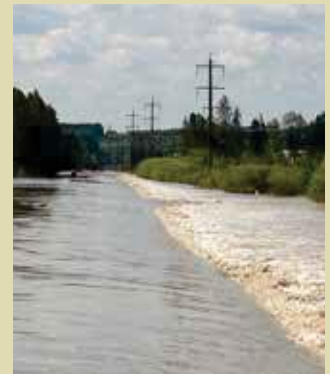


**SEAN FUREY, Plant Manager**  
Genesee Generating Station, Capital Power



**Sean Furey.**

## Challenges from the 2013 North Saskatchewan River Spring Flood Continue



Last June, 2013, the North Saskatchewan River broke its banks and flooded the lands and the gravel operation north west of the Genesee Generating Station. This was due to greater than normal spring run-off and heavy spring rains. The resulting flood put Genesee's river water intake pump-house at risk of not being able to draw the necessary quantities of water to ensure the plant can continue to operate at full capacity.

## GENESEEE STATION

BOX 20, SITE 2, RR #1  
WARBURG, ALBERTA T0C 2T0 CANADA

Since last June, Capital Power has been working closely with Alberta Environment and Sustainable Resource Development, and local companies to mitigate the impact of the flood. At one point, large boulders from the Genesee Mine were being hauled to the river to repair the damage caused by the flood and to increase the water around the pump-house back to normal levels. The situation is considered under control at this time, and an engineering study is in progress to determine future risks and develop mitigation plans if required.

## Genesee Generating Station Marks 25 Years

Capital Power is proud that 2014 marks the Silver Anniversary of the Genesee Generating Station. This year also happens to be the 5th Anniversary of the creation of Capital Power.

Plant manager Sean Furey has been with the company at Genesee Station since 1999 and looks back over the time with many memories. "Twenty five years ago in 1989, our first Generating Unit, Genesee 2 began operations," says Sean. "In that time we've grown as a company, as an operation and as a community member. I'm personally looking forward to continuing to build on our solid reputation as a respected operator and a trusted neighbour."

To mark the occasion, a celebration is being planned for employees and the community. More details will be provided as plans are finalized.

### First Aid Training

Capital Power provides subsidized St. John Ambulance Standard First Aid training for residents of the Genesee community. The minimum 13-hour course (over a weekend) is designed for those who need standard first aid knowledge and skills. A maximum of 20 spots are available and will be filled on a first come, first served basis.

The cost per person is \$20 which includes lunch for both days.

To register, call Jennifer Linder: **780-969-8706**.  
Registration deadline is April 4, 2013.

When: April 12 & 13, 2014

Where: Genesee Hall



## Rehabilitated Eagle Released at Genesee



On November 11, 2013, a bald eagle was found on the ground by a hunter near Spruce Grove. The eagle was lethargic and obviously not well. The hunter brought it to the Wildlife Rehabilitation Society of Edmonton (WRSE) where it was determined that the eagle had consumed lead shot and was suffering from lead poisoning. The bird most likely was eating an animal that had been shot with lead pellets and not retrieved by the hunter.

While the lead levels were very high, under the expert care of the WRSE over two months, the bird was ready to return to the wild. The WRSE contacted Jennifer Linder, the project coordinator for land management at the Genesee Generating Station to discuss a potential release at the Genesee site. Due to the large land base and access to both the cooling pond and the river, it was a desirable location for the eagle to return to its habitat.

On January 16, 2014, the WRSE released the rehabilitated eagle in a park near the Genesee Generating Station and with members of the Paul First Nation attending to recognize the event.

To view a video of the release, search 'Bald Eagle Release 2014' at [www.youtube.com](http://www.youtube.com) and look for the video posted by 'Wildlife Rehab'.

Capital Power has been working with the WRSE to release rehabilitated ducks onto the cooling pond this winter. Over November and December 2013, eight ducks were released.

### How can I help?

If you find a wild animal in distress, call the WRSE Distress Hotline at **780-914-4118** for assistance.

## Electronic Newsletter

An electronic version of this newsletter is available. Please let us know if you prefer to receive your copy of the Genesee Connection by email instead of hard copy. OR, if you no longer wish to receive this newsletter, please contact us at 'Community Consultation' and we will remove you from our mailing list.

## Cattle Grazing Opportunity

Capital Power operates a large community style pasture on its land base at Genesee. It is a mixed breed cow/calf pasture with cattle from various herds in the same grazing area. The cattle are professionally managed while on pasture. All animals are cattle and are vet inspected before being allowed on pasture. Please note: Capital Power does not rent pasture to private herds.

In 2014 the grazing rate will be \$1.00 per day per pair. Fencing, salt, and cowboy service is included.

Capital Power is accepting applications from local farmers to put cattle on the pasture in 2014. Please contact Jennifer Linder, **780-969-8706**, before March 31, 2014 for more info.

## Land For Sale

Capital Power has a number of parcels of farm land for sale near the Genesee Generating Station. Please contact George Greenhough at **780-969-8618** for detailed information.

## What Is Important to You?

The *Genesee Station Connection* newsletter is written for members of the Genesee community. We think it's important for our neighbours to have the opportunity to learn and ask questions about our operations and our activity in the community.

Topics are chosen that we think would be of interest to our readers, but as this is a newsletter for neighbours, we want to know what *you* would like to read about.

Help us continue to improve the newsletter by telling us what kind of information you would be interested to learn more about. Comments and suggestions can be made by contacting Community Consultation (contact information on page 2).

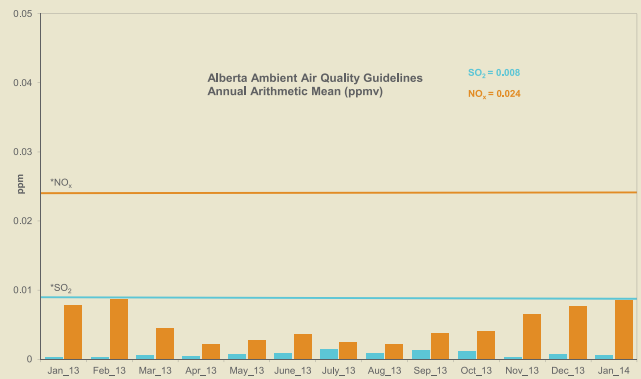
## Genesee Station Environmental Performance

The following graphs show the most recent environmental performance results:

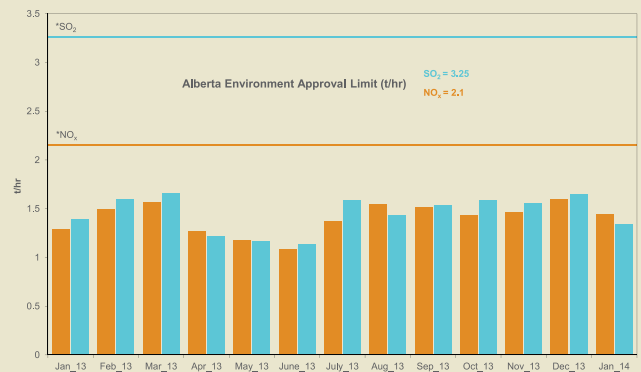
- Ambient air quality as measured by the Genesee ambient air monitoring trailer;
- Stack emissions for stack one (for generating units 1 and 2);
- Stack emissions for stack two (for generating unit 3).

Measurements are compared to guidelines and approval limits set by Alberta Environment. Genesee continues to operate below maximum levels set for ambient air quality and stack approval limits.

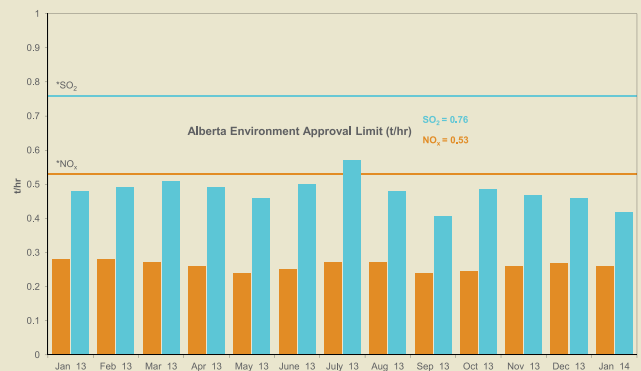
### AMBIENT EMISSION LEVELS



### G1/2 EMISSION LEVELS



### G3 EMISSION LEVELS



**Sulphur Dioxide (SO<sub>2</sub>):** a strong smelling, colourless gas that is formed by the combustion of fossil fuels. In high concentrations, SO<sub>2</sub> is known to be harmful to vegetation and human health. SO<sub>2</sub> is soluble in water and excessive levels can lead to sulfuric acid deposition or acid rain.

**Nitrogen Oxides (NO<sub>x</sub>):** the term used to describe NO (nitrogen oxide), NO<sub>2</sub> (nitrogen dioxide) and other nitrogen oxides. The major sources of man-made NO<sub>x</sub> are high-temperature combustion processes, such as those occurring in automobiles and power plants. When concentration is high, NO<sub>x</sub> is of concern because it contributes to ground-level ozone or smog. Genesee 3 approval limits are based on a 720 hour rolling average.

*Note: All results are converted to reference standard conditions so as to be comparable to other coal fired plants in Alberta and elsewhere, and are dry concentrations corrected to 50% excess air; ppm: parts per million. An example of the quantity of Sulphur Dioxide and Nitrogen Oxides measured at ambient air sites in parts per million would be equal to approximately 1/100th of a grain of salt per breath of air. G3 has separate approval limits from G1 and G2 for its stack emissions. G3 approval limits are in terms of a mass emission rate (i.e. tonnes per hour). To be consistent for all units, we have shown G1 and G2 emissions and limits in tonnes/hour as well.*

12TH FLOOR EPCOR TOWER  
1200 – 10423 101 STREET NW  
EDMONTON, AB T5H 0E9



## GENESEE CONTACT INFORMATION

If you have questions or comments about our operations, community engagement or our land management practices, please feel free to contact us.

Generating Station Reception  
**780-848-8300**

Community Consultation  
**780-848-8474**  
**PublicConsultation@capitalpower.com**

Manager, Environment & Land Services  
George Greenhough **780-969-8618**

Genesee Guardhouse  
(24-hour Security)  
**780-969-8505**

Capital Power Website  
**www.capitalpower.com**



We are proud community members and appreciate receiving feedback from our neighbours about how we can improve our business practices, communication and our outreach.

Are you, or is someone you know, interested in working at Capital Power? We provide careers that offer professional growth, new challenges, recognition and long-term satisfaction. For more information on starting a career with Capital Power and to view current job opportunities, visit our website at **www.capitalpower.com/careers**. Capital Power is an equal opportunity employer.

Capital Power respects your right to privacy. Any personal information Capital Power collects about you, including your name, address, phone number and email address, will only be used to contact you for the purposes of the consultation process. For further information, please see Capital Power's Privacy Policy at **www.capitalpower.com**.



# SPECIAL EDITION MARCH 2014 CONNECTION

## Open House for Proposed Genesee Units 4 & 5 and Genesee Licence Renewal



In December 2012, Capital Power announced its intention to develop the Genesee Generating Station Units 4 & 5 (the Project), a new natural gas-fired combined cycle generation facility. The Project would be located within the existing footprint of the Genesee Generation site directly adjacent to (east) of Genesee Unit 3. The total capacity for the two 1-on-1 units will be up to 1050 MW. Capital Power also submitted an application to renew its operating licence for the current three Genesee Units. This licence must be renewed every ten years and was last renewed in 2006.

On December 20, 2013, Capital Power submitted applications for the Project to both the Alberta Utilities Commission (AUC) and Alberta Environment and Sustainable Resources Development (ESRD). In addition, the Licence Renewal Application was submitted to ESRD. A Project description was also submitted to the Canadian Environmental Assessment Agency (CEAA) for determination as to whether an Environmental Assessment is required.

Capital Power held the first of two open houses for the Project and the Licence Renewal on November 27, 2013 at the Genesee Hall, and just over 20 people attended. Some of the more common questions we heard are answered below.

Capital Power is hosting a second Open House for the Genesee Generating Units 4 & 5 Project and we invite anyone interested in learning more about the Project to attend. Project experts will be on hand to answer your questions, and as EPCOR is responsible for the design and build of the substation component of the Project, members of the EPCOR team will also be in attendance to provide information on this aspect of the Project.

**Open House for Genesee Generating Units 4 & 5**  
Thursday, April 10, 2014 from 4 pm to 8 pm  
Genesee Hall (Highway 770 and TWP 510)

Both the ESRD and CEAA determined that no Provincial or Federal Environmental Assessment is required for the Project. However, key environmental studies conducted by Stantec and Golder Associates were still completed to support the applications submitted.

The full Project Application (including the detailed study results that were submitted under the Environmental Protection and Enhancement Act or the Project) and the Licence Renewal Application submitted to ESRD can be found on Capital Power's website: [www.capitalpower.com/generationportfolio/constructiondevelopment/Pages/G4and5.aspx](http://www.capitalpower.com/generationportfolio/constructiondevelopment/Pages/G4and5.aspx)

### GENESEEE STATION

BOX 20, SITE 2, RR #1  
WARBURG, ALBERTA T0C 2T0 CANADA

For more information on the Genesee Units 4 & 5 Project, please visit [www.capitalpower.com](http://www.capitalpower.com), or contact us directly: **780-848-8474**, [publicconsultation@capitalpower.com](mailto:publicconsultation@capitalpower.com).

Following is a summary of the questions that were heard, and the answers provided:

### Is this a gas project?

Yes. Due to the abundant and affordable nature of natural gas, Capital Power believes that natural gas will offer the best fuel for providing a reliable, clean, and efficient alternative for new generation in meeting the demand growth in Alberta.

### How will the gas be brought to site and where is it coming from?

The current plan is for the Project gas supply to come from TransCanada's main line located west of Drayton Valley. An underground pipeline of approximately 78 kilometres will be developed to supply fuel for the Project. TransCanada and ATCO will determine the preferred route option for the pipeline. The pipeline will connect the project to an existing high pressure line in the area and TransCanada/ATCO will undertake a separate regulatory approval process prior to construction.

The service provider for natural gas pipelines in the area is ATCO Gas who is responsible for the pipeline's regulatory process and installation.

### How big will the plant be and where will it be built?

The proposed Project has a footprint of 200m x 300m compared to existing units at Genesee with a footprint of 300m x 400m. The power generation building height is approximately 40 metres for the new units compared to Genesee 3 boiler building height of 69 metres.

The new units are based on natural gas fired combined cycle technology. Combined cycle technology offers a smaller footprint per megawatt of potential generation. In addition, there are no coal or ash-handling systems which would require more space, and the technologies for pollutant control are more compact than those required for advanced coal systems.

The proposed project will be located on a brownfield site (previously disturbed) and within the existing Genesee Generating Station (GGS) footprint, adjacent to the east side of the existing GGS and on the west side of Secondary Highway 770.

### How will the power get to the Alberta grid? Will more transmission lines be needed?

No new transmission lines are required for this Project. Electricity generated by the Project will be transmitted to the adjacent Genesee Substation, which is interconnected to Alberta's power grid with existing transmission lines. An expansion will be required of the existing Genesee Substation, and EPCOR will be responsible for this aspect of the project.







**Is the power for Alberta or will it be exported?**

The Project is being developed as a response to anticipated power needs in Alberta. Power from the Project will enter the Alberta power grid and could be used by any customer who has a connection to the grid. This includes industrial, commercial, residential and farm customers.

Alberta has a dynamic, market-based system, and there are a number of factors (price, internal load, internal generation capacity) that determine whether, at any given hour, the province will import or export power.

It is common for Alberta to both import and export power within a 24 hour period. During day time hours, it is typical for Alberta to import power from British Columbia and Saskatchewan. During late evening hours, Alberta will frequently export power to British Columbia.

Overall, Alberta has traditionally been a net importer of electricity from BC, Saskatchewan, and Montana.

**What kind of air emissions will come from the plant?**

Stantec conducted an Air Quality Impact Assessment to assess potential effects on air quality from the existing GGS and the proposed Project emissions at the GGS.

**The key findings of the air quality impact assessment are:**

- Dispersion modelling was performed in accordance with the ESRD Air Quality Model Guidelines.
- Maximum concentrations of emissions (including NO<sub>2</sub>) from the Project (G4 and G5 alone) are predicted to be much lower than the Alberta Ambient Air Quality Objectives (AAAQO).
- Maximum predicted emissions at all sensitive receptors are predicted to be less than the AAAQO.
- The Project (G4 and G5) is not expected to materially increase maximum concentrations of emissions within the study area.
- The full details of the air quality impact assessment report can be found within the application at [www.capitalpower.com/generationportfolio/constructiondevelopment/Pages/G4and5.aspx](http://www.capitalpower.com/generationportfolio/constructiondevelopment/Pages/G4and5.aspx)

**How much noise will come from plant operations?**

A noise impact assessment was conducted by Stantec. Noise levels from the proposed project must comply with the AUC's Rule 012 – Noise Control. In addition, the Project will comply with noise level restrictions required by the County of Leduc's noise bylaws or potential conditions within the Development Permit issued by the County for the Project.

Acoustic treatment of the buildings and placement of silencers on the air intakes of the gas turbines are some of the options that may mitigate sound generation from the power plant.

Rule 012 allows for the permissible sound levels (PSL) at the most impacted dwelling(s) from the noise boundary of the facility property during summertime conditions to be:

- 40 dBA nighttime
- 50 dBA daytime

#### **The key findings of the noise impact assessment are:**

- Predicted sound level (PSL) contributions from the Project are below the existing noise levels at all dwellings, and are also below the mandated ambient sound level (ASL) at all dwellings.
- The predicted cumulative sound level (i.e., facility contribution plus mandated ASL) for the most impacted dwelling is below the PSL for both the nighttime period and the daytime period.
- The potential for Low Frequency Noise (LFN) was considered in this assessment. The results indicate no potential for LFN at the closest dwelling.

#### **What will the impacts to the community be?**

As a provincial Environmental Impact Assessment is not required for the Project, a formal socio-economic study will not be completed. Capital Power will engage with groups and individuals who express socio-economic/community concerns.

No additional land is required for the proposed Project so no land purchases will be necessary, and approximately 25–30 new employees will be required to operate the facility. Capital Power hires local employees whenever possible; currently over 30 GGS employees are from the Warburg, Thorsby, Leduc, Calmar and Sunnybook area.

#### **When will you be open for contracts/bids?**

The project is currently in the early stages of development and as yet has not received regulatory approval. As the project develops, there will be a process to manage interested contractors. More information will be available when the project receives regulatory approval and moves further into the development phase. Additional information will be made available on the Capital Power website and in future editions of this newsletter. Contact Community Consultation to have your name added to the mailing list.

#### **Will traffic be impacted?**

Yes. Capital Power will encourage workers to utilize bussing provided to them to get to and from the site in order to decrease vehicle traffic on local roads. We anticipate that the increased traffic during construction will be less than what was experienced during the construction of Genesee 3 because of a smaller peak labour force.

The impact on traffic after construction is complete should be minimal. Capital Power is committed to maintaining a safe travelling environment to and from our Genesee facility.

As always, Capital Power will be monitoring vehicle traffic along with Alberta Sheriffs and RCMP. Capital Power will continue to encourage motorists that witness unsafe or aggressive driving behavior to report license plate numbers and a vehicle description.