



Is it time to turn wood into electricity?

Is a biomass power plant a good renewable energy opportunity for Haines Junction and the CAFN Traditional Territory?

That's the question five project partners are working together to answer.

The Champagne and Aishihik First Nations, the Dakwakada Development Corporation, Yukon Energy, Cold Climate Innovation of the Yukon Research Centre, and the Village of Haines Junction are exploring a potential opportunity to produce renewable energy in the Haines Junction area using biomass technology.

How?

The partners are looking at producing electricity and possibly heat for local buildings using a power plant fueled by beetle-killed trees, sawmill waste, and other sources of renewable wood fibre harvested from the Haines Junction area.

When?

We are in the early stages of exploring this opportunity. Please see the chart on pages 6–9 for the estimated timing of the various study phases.

What?

Our initial work includes informing and discussing the concept with Champagne and Aishihik citizens, stakeholders and the public while conducting a feasibility study to see if operating a biomass power plant in Haines Junction is technologically, environmentally and financially a good choice.

Early work has shown that biomass technology in Haines Junction may be possible. The engineering firm Stantec has now been hired to do a feasibility study funded by each of the project partners and Natural Resources Canada, Canadian Northern Economic Development Agency and the Government of Yukon. The results of that technology study are expected late this year.

Join us for a public open house:

Tuesday, January 22, 2013,
starting at 5:30 p.m. at the new
Da Kų Cultural Centre, 280 Alaska
Highway in Haines Junction.

FREE dinner provided

Once the results of Stantec's feasibility study are known, the project partners will share that information and seek feedback. They will then decide whether to continue with further studies and how best to move forward.

Future work would involve exploring in greater detail the source and sustainable supply of wood fibre fuel for the proposed biomass facility. If the overall concept is feasible, the biomass project will then undergo community, environmental, socio-economic, and regulatory reviews before a final decision is made to proceed with construction and operations.

This is the first time that the project partners have combined forces to collaborate on a potential renewable energy project.

The plant concept envisions the building of a small scale gasification plant that will generate between 0.5 and 2 megawatts of renewable electricity, helping to develop a sustainable and secure energy future for the Haines Junction community and the Yukon.

The technology is innovative and has been successfully used in other parts of Canada, in the United States, and in Europe and Asia. If built, the power plant would be the first biomass electricity production facility in the Yukon and has the potential to act as a demonstration project for other small rural and northern communities.



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Potential Benefits

- A biomass power plant could generate at least 0.5 megawatts of much-needed renewable electricity, contributing to a sustainable and secure energy future for the Haines Junction community and the Yukon.
- The project could create some local jobs and offer long-term economic opportunities for local businesses.
- Waste heat from the facility could potentially be used to heat existing or new facilities (such as a community greenhouse).

Potential Challenges

- Cost
- Ensuring sustainable wood fibre harvesting and sustainable operation of the power plant
- Potential noise and other effects from increased traffic, construction, and industrial activity



Steps in the Process

Listed below are the various phases and timelines for this project. If the project does not pass the project partner's "go or no-go" decision criteria at any of these stages then the project studies will stop.

| Project Phase | Timing |
|--|--|
| Phase 1: Biomass Technology Research and Feasibility Study <ul style="list-style-type: none">• Given existing technology and potential fuel sources, is a biomass power project in the Haines Junction area technically and economically feasible?• Is there an acceptable location for the biomass power plant?• Can a biomass power plant be developed and operated in an environmentally and socially responsible way? | August 2012 to March 2013 Phase 1 work is now under way |
| Phase 2: Feedstock Assessment <ul style="list-style-type: none">• Is there enough renewable wood fibre available to fuel the proposed power plant for the long term?• Where would the wood fibre be harvested and can it be sustainably harvested? | Possible Timing: 2013/14 |
| Phase 3: Integrated Environmental and Socio-Economic Effects Assessment <ul style="list-style-type: none">• Combining the work of Phase 1 and Phase 2, what does the overall project look like?• What are the likely positive and negative effects on the environment and on local residents?• Could any significant negative effects be satisfactorily avoided or mitigated? | Possible Timing: 2014 |

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| Project Phase | Timing |
|--|------------------------------|
| Project Partner Decision Point | |
| Phase 4: External Effects Assessment and Licensing/Permitting <ul style="list-style-type: none"> • YESAA Assessment • Regulatory Review and Authorization | Possible Timing: 2014 – 2016 |
| Phase 5: Detailed Design and Tendering | Possible Timing: 2016 |
| Project Partner Decision Point | |
| Phase 6: Construction | Possible Timing: 2016+ |
| Phase 7: Operation | Possible Timing: 2016+ |
| Phase 8: Decommissioning | To be determined |

How you can participate?

We are in the very early stages of investigating whether a small biomass gasification power plant is possible for the Haines Junction area. We need the help of Champagne and Aishihik citizens, stakeholders and the public, and we encourage your input and participation at key points throughout this work. We know that you will have many questions about this potential project and we request feedback on how you want to be engaged and informed throughout this process.

If the proposed project proceeds to the effects assessment and permitting stages there will be additional opportunities for potentially affected or interested First Nations citizens, stakeholders and members of the public to comment and make suggestions through community, environmental and regulatory review processes.

Our goal is to keep you informed and to listen to your views throughout the process. We commit to providing regular updates as the work proceeds. As our research progresses we will share our findings through a regular newsletter, on project partner websites, on Yukon Energy's blog and on the Yukon Energy Facebook page. You can also find out more information by directly contacting staff at any of our organizations.

One of the first opportunities to ask questions and provide your input will be at a public open house on Tuesday, January 22, 2013, starting at 5:30 p.m. at the new Da Kq Cultural Centre, 280 Alaska Highway in Haines Junction. FREE dinner provided.

Need more information?

Want to express an opinion?

Champagne and Aishihik First Nations

Email: almckinnon@cafn.ca

Website: www.cafn.ca

Phone: (867) 634 4237

Dakwakada Development Corporation

Email: murray@dakwakada.com

Website: www.dakwakada.com/index.cfm

Phone: (867) 668 5831

Cold Climate Innovation, Yukon Research Centre

Email: tdavey@yukoncollege.yk.ca

Website: www.yukoncollege.yk.ca/research/programscold_climate_innovation

Phone: (867) 456 8670

Yukon Energy Corporation

Email: communications@yukonenergy.ca

Website: www.yukonenergy.ca

Phone: (867) 393 5333

Village of Haines Junction

PO Box 5339, Haines Junction, YT Y0B1L0

Email: vhj@yknet.ca

Website: www.hainesjunctionyukon.com/WhatsHappening/Village/Main.html

Phone: (867) 634 7100

