Key messages and Q&A

Background

1. For the past few years, the MRC Pontiac has been trying to breathe new life into our regional economy, which was hard hit by the forest industry crisis in Quebec.

2. Our local economy has suffered severely from the 2008 forestry crisis, which:
   a. Affected both the availability and quality of jobs;
   b. Abruptly deprived the region of its ability to act on its greatest natural resource: the forest; and,
   c. Prevented us from reaping the benefits of the forest.

3. In 2009, in response to these events, the MRC initiated a strategic planning process in collaboration with the SADC Pontiac, the Ministry of Economic Development, Innovation and Exports (MDEIE), and Canada Economic Development (CED), to redefine the socio-economic future of the region, and identify the directions we should take to revive our economy. The strategic plan, Vision Pontiac 2020, was the result of this exercise.

4. Vision Pontiac 2020 led to a development strategy and an action plan to launch our five primary economic sectors: (1- tourism, 2- culture and social and community, 3- commerce and industry, 4- forests and natural environment, 5- agriculture and agribusiness), including that of forests and natural environment.

5. Industrial and forestry resource development remain key priorities because of their tremendous potential:

   "In 2020, the forest and natural environment sector will still be a major pillar of our economy through the innovation and diversification of its uses. The MRC Pontiac will stand out for the variety and quality of its natural resources, its qualified workforce and training opportunities." – excerpt from the Vision Pontiac 2020 Strategic Plan
By prioritizing this sector, the development strategy will:

- Improve the level of competitiveness of our region;
- Align the use of forest resources to the principles of sustainable development, in other words, develop to meet current needs without compromising the ability of future generations to meet their own needs because we have abused or misused resources today;
- Promote our forests and the expertise of our workforce.

6. The Biomass Conversion Centre (CVB) stems from this development strategy. This first project meets the needs and expectations expressed by local stakeholders, and also those of the government, whose current strategic thrust revolves around sustainable development and innovation.

7. This approach is designed to restart the Pontiac economy in a sustainable manner, thus creating quality jobs and generating direct and indirect benefits in an area where the forest resource is abundant.

**Key Messages**

- As the Regional County Municipality, the MRC Pontiac is responsible for economic development on its territory, and for ensuring that the necessary conditions for a competitive industry and sustainable development are in place for the benefit of all citizens.
- The MRC Pontiac has implemented an economic development strategy in line with the Vision Pontiac 2020 Strategic Plan to breathe new life in the Pontiac, notably by promoting our primary natural resource, the forest, as well as the expertise of its workforce.
- This strategy led to a first project: the biomass conversion centre (CVB), which aims to exploit our unused forest resource to produce and market high value-added products that offer exciting commercial opportunities, and for which there is a growing demand.
- The MRC Pontiac believes in the CVB’s potential and takes on with conviction the role of facilitator in order to increase awareness of the project and attract investors and promoters who will ensure its deployment and implementation for the benefit of the MRC Pontiac.
- The primary objectives of this development strategy are:
  - To create quality jobs;
  - To provide direct and indirect economic benefits;
  - To position the MRC as a leader in biomass processing in Quebec by implementing innovative and sustainable initiatives.
What is the CVB?

The Biomass Conversion Centre (CVB) is an integrated network of production units that makes full use of the forest biomass, specifically pulpwood (formerly used to produce pulp and paper), to:

- Extract bioproducts used in the manufacturing of common consumer goods, such as: textiles, paints, and cosmetics;
- Produce electricity and steam to make the CVB energy self-sufficient;
- Manufacture energy wood pellets for domestic and industrial uses.

The CVB is made up of:

- A **Fibre Processing Yard** to classify incoming logs based on their quality and intended use;
- A **Cogeneration Unit** that will produce the energy required to operate the CVB;
- A **Biorefinery Unit** having high value-added commercial opportunities subjected to growing demand;
- A **Bark Extraction Unit** to extract fibre used in the manufacturing of value-added products;
- An energy **Pellet Production Unit**.

The biorefinery will be the first production unit implemented. It will produce glucose sugars type (C-6), xylose (C-5), and lignin.

Technically:

- **STEP 1**: The pulpwood is cut, debarked, and chipped.
- **STEP 2**: One of the technologies will extract the main component of the fibre, either cellulose, hemicellulose, or lignin.
- **STEP 3**: The two main sugars, glucose and xylose, are then extracted from the cellulose and hemicellulose.

In a nutshell, the CVB:

- Will need 640,000 m$^3$ of fibre per year;
- Will procure its wood supplies in Québec and Ontario according to secured fibre supply guarantees, and wood waste from surrounding factories;
- Will obtain its wood supplies from public and private forests.
Questions & Answers

TECHNOLOGY & BIOPRODUCTS

**Question 1:** What technologies do you consider integrating into the Biomass Conversion Centre (CVB)?

**Answer 1:** A number of technologies are under study. We are pursuing our efforts to determine which is the most appropriate for the CVB, based on the following criteria:

- Commercially mature technology;
- Allows the use of Pontiac’s unsold pulpwood;
- Cost-effective technology that meets market needs for biorefinery products;
- Promotes the emergence of businesses offering innovative products and processes; and,
- Ensures the cost-effectiveness of all activities in the production chain.

**Question 2:** Will the technology chosen be from Québec?

**Answer 2:** The only biorefinery technologies that have reached commercial maturity, and therefore meet our selection criteria, are European and American. However, there are technologies currently under development in Québec; their progress will have to be followed.

**Question 3:** You say that you want to produce commercial sugars from forestry biomass. How much interest is there currently for this type of product? What are the forecasts for the coming years?

**Answer 3:** There is significant interest. Sugars are used in numerous common consumer and industrial products. For example, sugars have long been used in producing ethanol, particularly in Brazil. For another example, in 2004, the US Department of Energy identified 20 molecules synthesized from sugars that are now at the heart of the green chemical industry. In addition, a number of companies are producing biopolymers from sugars.

**Question 4:** Will production of commercial sugars alone be sufficient to make the CVB sustainable?

**Answer 4:** No, but it will be one major source of opportunities.

**Question 5:** Will Pontiac’s forestry resources be enough to meet the BCC’s needs?

**Answer 5:** In large part, but we will also need some forestry resources from other regions. Given the Pontiac geographic location, some supplies will be requested from Ontario.
**Question 6:** How is forestry biomass converted into commercial sugars?

**Answer 6:** The biorefining process starts with breaking down wood into its basic components, including cellulose, hemicelluloses, and lignin. This pre-treatment process is similar to the process used in the paper industry. Then, from the cellulose and hemicellulose we extract the two main desired sugars, glucose and xylose. The technology that will be adopted for the extraction of the two sugars is currently under review.

**Question 7:** What is lignin used for?

**Answer 7:** Lignin accounts for about 30% of the wood component. Worldwide, approximately 50 million tons per year is produced, mainly by the pulp and paper industry. Depending on the lignin processing method used, we can produce hydrocarbons, synthesis gas, phenols, oxidized products and macromolecules. Depending on the technology that will be selected for the production of sugar, we will determine the best use of lignin for commercial purposes.

**Question 8:** Besides commercial sugars, what other commercial opportunities are there for the CVB?

**Answer 8:** In addition to biorefining commercial sugars from wood components (cellulose and hemicelluloses), plans for the CVB include:

- A pilot plant for bark extractables;
- A fibre processing yard for preparing wood for crosscutting and chipping;
- A cogeneration plant for producing steam and electricity from processing residues.

**Project Development**

**Question 9:** At what stage of development is the CVB?

**Answer 9:** We have already taken several steps to confirm the feasibility of the CVB project and measure its potential. To date, the following steps have been taken:

- Identifying the bio compounds to extract;
- Assessing the processing technologies that are likely to be integrated into the CVB;
- Identifying market opportunities;
- Initiating discussions with potential buyers of these bio compounds;
- Creating the CVB Development Plan;
- Prospecting potential investors and promoters.

**Question 10:** Where will the CVB be located?

**Answer 10:** There are several appropriately zoned sites that could potentially be used, but for the moment, no decision has been made. There are many details that will have to be settled before a selection can be made, such as the choice of technology and the process for integrating that technology into the CVB.
Question 11: How will you fund the CVB?

Answer 11: We are currently recruiting potential investors. The CVB’s future business plan will determine the various sources of funding that will be necessary. It should be emphasized that the project is based on an approach of forestry diversification and development, as promoted by the government in accordance with the Sommet sur la Forêt held in 2013. This should promote investors’ openness toward the CVB.

Question 12: Are there any confirmed investors?

Answer 12: We are in contact with interested investors, but as yet nothing is nailed down or confirmed. At this stage of the project and the discussions, we cannot provide more specifics.

Question 13: Are there any similar projects elsewhere in Québec that could compromise this project’s future in some way?

Answer 13: No. The Outaouais region’s broadleaf forest is exceptional and offers special advantages to setting up this type of project in Pontiac.

Question 14:  

Réponse 14:  

IMPACT OF THE CVB

Question 15: What economic benefits are anticipated in the years following the opening of the CVB?

Answer 15: The economic benefits are difficult to evaluate at this stage, as the CVB project is still in development. Depending on the involvement and interests of the partners, the CVB project could take a variety of forms and follow a variety of different paths. In other words, the economic benefits will depend on the intentions of the partners and of the whole forestry community, according to the priorities they set. However, there is no doubt that the economic benefits will be positive and sustainable.

Question 16: How many jobs will the CVB create?

Answer 16: Giving a number of potential jobs at this point would be speculation. A more precise answer will be possible once the business case is developed.
**Question 17:** Will the majority of the CVB’s human resources be recruited from the Pontiac MRC and the Outaouais?

**Answer 17:** We will try to recruit as many people as possible from the Pontiac. However, opening a biorefinery and extractables plant will require specialized positions for which we may have to recruit outside the region. To deal with this lack of local specialized workers, the Centre intégré de formation professionnelle forestier du Pontiac (CIFPF) (integrated professional forestry training centre) will be opened in the MRC in order to train a new generation of specialized workers and ensure that the region can meet its own needs for a specialized workforce in forestry biomass conversion.

**Question 18:** How will the BCC improve supply for other mills in Pontiac and increase the quality of the wood distributed to them?

**Answer 18:** Forestry operations in the Pontiac are based on a combined harvest of all types and qualities of wood. If one of these products has no users, such as the pulpwood that was previously consumed by Smurfit-Stone, it becomes quite difficult to respect our forest management practices and to harvest wood in a cost-effective fashion.

**POLITIC & ENVIRONMENT MATTERS**

**Question 19:** How does the CVB project line up with the plan for revitalizing the Outaouais forest industry?

**Answer 19:** It is exactly in line with the strategic orientations established by the Québec government’s Ministère de l’Économie, de l’Innovation et des Exportations (MEIE) and the Ministère des Forêts, de la Faune et des Parcs (MFFP).

In addition, this project is perfectly in line with the objectives of the new 2030 Energy Policy, which focuses on increasing the use of forest biomass for energy production. By integrating a cogeneration unit in the CVB, the MRC contributes to achieving the target of 50% of bioenergy by 2030.

**Question 20:** What is the MFFP’s reaction to the project? Does it plan to be involved and help in the development of the CVB?

**Answer 20:** The MFFP has been on the BCC's management committee since feasibility studies began. We have always enjoyed and continue to enjoy the ministry’s support.

**Question 21:** Could the BCC have any harmful effects on the environment?

**Answer 21:** The development of the centre and the processing of natural resources will respect environmental regulations. We will ensure that the highest environmental standards are met at all times.

Local development and regional planning are among the responsibilities of Regional County Municipalities (MRCs). An MRC is empowered to:
• Take measures that promote the development of its territory;
• Develop strategies and action plans to increase the economic potential of the territory and create jobs.

In this context and in view of the difficult economic situation that persists in Pontiac since:

• The Smurfit-Stone shut-down; and,
• The decline of the Quebec forest industry,

The MRC Pontiac must take action to boost its economy and create quality jobs that will allow us to retain and attract a skilled workforce, and position the MRC as a contributor in stimulating and accelerating the Quebec economy.

**Question 22:** Why is the MRC and its elected officials involved in this project?

**Answer 22:** The MRC has a role to play in the economic development of its territory. It is responsible for identifying, planning, and assisting in the implementation of a development strategy that will help the region to regain its competitive foothold and generate sustainable financial returns to the benefit of its citizens.

The CVB initiative evolved from the Pontiac Development Strategy, which is in line with the *Vision Pontiac 2020* Strategic Plan approved by local stakeholders.