

# Renewable energy projects and business opportunities



**Community  
Owned Project**

**A  
sustainable  
development  
approach**

**Second Yukon First Nations Energy Forum  
May 28-29<sup>th</sup>, 2015**

# Renewable Energy Project

## Market considerations

### a. Independent producer recent history (last 20 years or so)

- In the 90's government opened up the electricity market to independent producers with calls for tender in Québec, then in British Columbia and Ontario.
- This has been done in the form of long term contracts executed with the Government Owned Public Utilities.
- This frame work comes from political goodwill rather than specific energy needs and resulted in the immergence of an industry highly sensitive to governmental willingness to promote renewable energy.



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## Market considerations cont.

### b. Independent producer fundamentals – public source of concerns

Collective energy resource development by private entities made possible by the availability of long term contract from Government Owned Public Utility has raised criticism in the public opinion.

- Is there a more equitable way to develop the collective resource ?
- Could it be done and fulfill sustainable development objectives ?

### c. Community participation evolution in renewable energy project



**Net tendency for community to increase participation and control of renewable energy project**



# Renewable Energy Project

Business opportunity

100 % community owned approach

- ❖ Legitimate use of public resources for the benefit of communities;
- ❖ Better address local community concerns and encourage development of social acceptance consensus
- ❖ Often includes external considerations that are important for the community development and well being
- ❖ Efficient financial structure





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## Pekuakamiulnuatsh Takuhikan – Renewable energy background

20 years ago, Pekuakamiulnuasth Takuhikan embraced the challenge to become an Independent Power Producer.

In 2007, creation of an innovative partnership with municipal entities to develop two hydroelectric projects totalizing 128 M\$ in investment:

Val Jalbert,	17,9 MW	in operation since February
Onzieme Chute,	18,3 MW	construction to start this fall.

In these two projects developed in parallel, Pekuakamiulnuasth Takuhikan, provides necessary resources to support project development and construction management and is also responsible for the operation.

Also participation with private developers and other First Nation's communities in wind farm projects located on ancestral territory.



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## Pekuakamiulnuatsh Takuhikan - Findings

### **Maximisation of renewable energy community benefits - ingredients:**

- ❖ Partnership composed of compatible entities that can truly share common goals and that are equally sensitive to remote region challenges;
- ❖ Community preserves a large shareholding position allowing to use competitive finance mechanisms available only to community entities;
- ❖ Community actively participates in project definition, administration and management throughout the project life cycle.



# Renewable Energy Project

Business opportunity

The A-Ha moment ... 20 years in the making

## **Converging factors**

- ❖ Sustainable development principles and goals seek greater involvement of local communities
- ❖ In Canada, government and developers recognize their obligation to collaborate with First Nation's in natural resource developments
- ❖ Proven track record of the 100 % community owned approach

## **Combined with two Mashteuiatsh community particularities**

- ❖ Desire to grow and expand renewable energy business
- ❖ Availability of resources with recognized expertise in renewable energy project development and operation;



**Immerge the idea to provide an innovative and unique partnership alternative to other communities located outside ancestral territory**



# Renewable Energy Project

Business opportunity

Developer role throughout project life cycle

## Development phase

- A) Partnership management
- B) Communication and community liaison
- C) Project management
- D) Financial structure

- E) Environmental studies
- F) Engineering and technical studies

## Construction phase

- A) Partnership management
- B) Communication and community liaison
- C) Construction management
- D) Quality assurance

- E) Construction activities
- F) Quality control

## Operation phase

- A) Partnership management
- B) Communication and community liaison
- C) Operation management
- D) Operation

- E) Specialized maintenance
- F) Repair works

### ***Community entity advantages***

- ***Continuous local presence, social acceptance, project rights , and stakeholders understanding***
- ***Focus on fields where entity has experience and affinities so project could be an opportunity to consolidate and develop capabilities within the community***



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## Upsides and challenges

### Renewable energy project upsides

- A) **Low CO<sub>2</sub>** emissions;
- B) Regional **energy independency**;
- C) **Guaranteed** long term competitive energy cost;
- D) **Predictable** revenue stream;
- E) **Long life** expectative

### Renewable energy project challenges

- A) Expertise mostly concentrate within private developers
- B) Heavy initial investment – long term debt
- C) Relatively long development period
- D) Regulated market and sophisticated permitting process
- E) Production governed by natural resource availability





# Renewable Energy Project

Community developer

## **Factor of success:**

1. Clear vision of the project goals;
2. Good project in light of expected generation market conditions;
3. Apolitical community entity with decision autonomy (Limited partnership structure is well suited for this);
4. Strategic selection of entity representatives;



# Renewable Energy Project

Community developer cont.

## **Factor of success**

5. Communication and liaison with the community, local people and stakeholders;
6. Management expertise within the development entity;
7. Access to risk capital for development and to competitive financing for long term debt.



# Renewable Energy Project

Business opportunity – 100% community owned benefits

## Benefits include:

- ❖ Consolidation and increase of project development and management capabilities within the host community;
- ❖ Direct ownership and control of the investment opportunity;
- ❖ Maximization of project revenues returning to communities;
- ❖ Allow to deploy construction and operational strategies to support local economy.

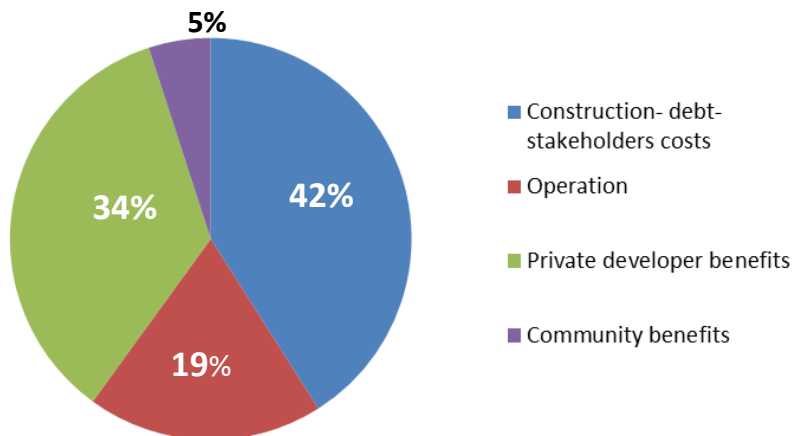


# Renewable Energy Project

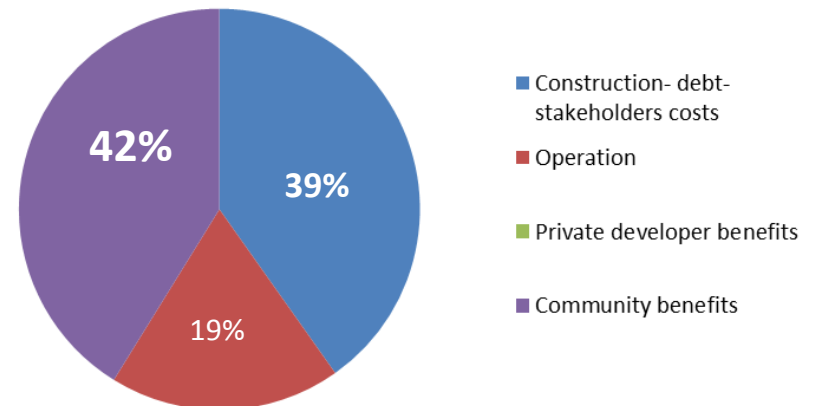
Business opportunity – 100% community owned-benefits

**Maximise proportion of project gross revenues returning to communities over project life cycle**

**PRIVATE DEVELOPER**



**COMMUNITY DEVELOPER**



# Renewable Energy Project

Business opportunity – 100% community owned-benefits

## **Typical public infrastructure financing is accessible to community entities and offers:**

- Competitive conditions compared to private institutions and specialized investment funds;
- Approval process is less costly than the one of private institutions;
- A reduction of due diligence costs leading to financial closing for private institutions;
- Flexibility of construction contract type (not necessarily EPC, or turnkey);
- Proven method in Quebec, needs to be validated according to applicable legislations.





# Renewable Energy Project

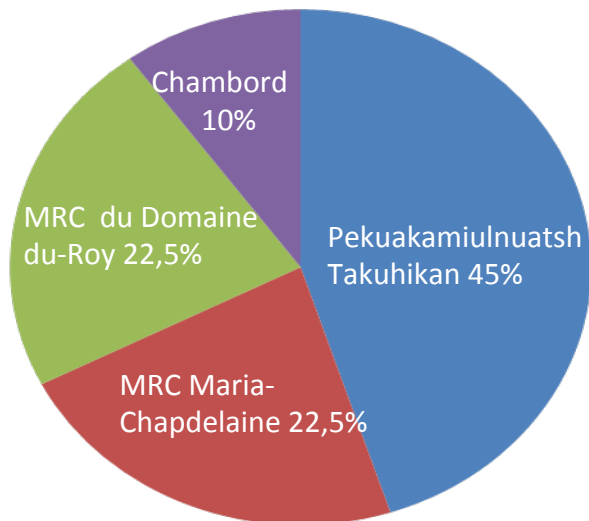
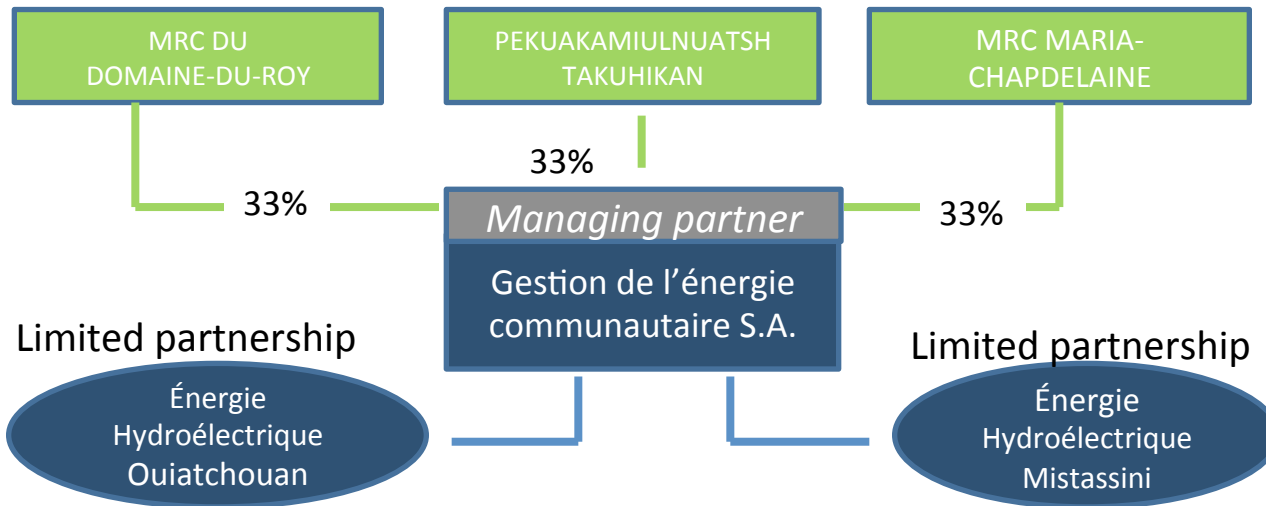
Business opportunity – Val Jalbert & Onzième Chute  
- case study

- 2007** Pekuakamiulnuatsh Takuhikan enter into a partnership with two County Municipalities to develop renewable energy projects on the Natissinan ancestral territory .
- 2010** Hydro-Québec request for proposal process culminate by the awarded of six hydroelectric projects where community are participating. The Natissinan partnership presented two projects and both were awarded mainly because of the 100 % community owned strategy.
- 2013** Val Jalbert construction started in February.
- 2015** Val Jablert reached commercial operation in February.
- 2015** Onzième Chute construction expected to be initiated this fall.
- 2017** Onzième Chute commercial operation expected during the fall.

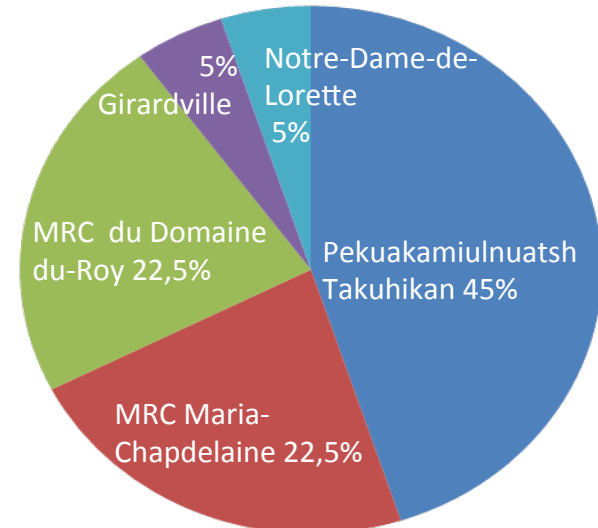


# Val Jalbert and Onzième Chute

## Limited partnership structure



**100 % public investors**



# Renewable Energy Project

Business opportunity – Val Jalbert & Onzième Chute  
- case study

## **Developer organization:**

Limited partnership company is controlled by a board of directors composed of six members, representing the different project sponsors. Board meetings are held monthly during development and construction phases, and on a quarterly basis during operation phase.

## **Developer administration and management:**

Administration and management is provided by Pek Group resources on an open book basis, Pek being 100% owned by Pekuakamiulnuatsh Takuhikan who is also sponsor of the project limited partnership. These services are performed through development and construction of the project and will continue during the operation phase.



# Renewable Energy Project

Business opportunity – Val Jalbert & Onzième Chute  
- case study



Val Jalbert  
Powerhouse building  
overview



Val Jalbert inauguration May  
22<sup>nd</sup>, 2015, by  
Québec Prime Minister  
Mr. Philippe Couillard



# Renewable Energy Project

Business opportunity – Val Jalbert & Onzième Chute  
- case study cont.



**Touristic walkways**

**Ouiatchouian Fall,  
View from powerhouse  
roof terrace**





# Renewable Energy Project

Business opportunity – Val Jalbert & Onzième Chute  
- case study cont.



Val Jalbert dam site  
Crest gate section

# Renewable Energy Project

Onzième Chute (18,3 MW in development phase)





# Minashtuk ( 10 MW in operation since June 2000)



# Renewable Energy Project

## Business opportunity – Conclusion

- Renewable energy project can contribute to community financial autonomy and development;
- Project ownership structure is a key factor in establishing the level of benefits a community and future generations will receive from given selective opportunities;
- Community have fundamental tools to successfully embrace the challenge of energy project development and ownership, and should play a crucial role in energy resource development on their ancestral territories.



# Renewable Energy Project

Business opportunity – Pek Group

**Pek Group, a First Nation owned development company is positioned to:**

- Demystify renewable energy projects, one community at a time;
- Share experiences and resources to support emergence of renewable energy projects BY and FOR communities;
- Deploy a proven innovative business model supporting communities in their endeavor to reduce CO<sub>2</sub> emissions, improve management skills, and achieve greater financial autonomy.

***"Perseverance is not a long race; it is many short races one after the other." - Walter Elliot***





# Renewable Energy Project

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*Thank for your attention !*

