



A Sustainable Energy Financing Guide for North American Indigenous Communities & Organizations

Sourcing Financial Capital and Related Resources for Renewable Energy and Energy Efficiency Projects

for the Commission for Environmental Cooperation (CEC)

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Financing for Indigenous Clean Energy Project in NA

This Working Guide for Financing Clean Energy Partnering for Indigenous Communities has been prepared by Lumos Energy. The Guide serves as a resource for participants in the *North American Indigenous Peoples and Energy Resources Forum* presented by the Commission for Environmental Cooperation (CEC).

While the Guide is a Lumos product it draws upon material, case studies, and experience of indigenous communities, investors and financial companies, Aboriginal organizations and government programs (such as the ICECAP Program of Indian and Northern Affairs Canada, the US DOE's Tribal Energy Program, and the Renewable Energy Program in Mexico, as well as the work of the CEC).

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While clean energy projects clearly need financing to become a reality; the models and sources of financing a project must ensure that indigenous communities receive a fair share of project benefits.

Financing Models and Sources

Clean energy projects have several unique features that make them potential very powerful drivers for the sustainable development of indigenous communities, they: utilize renewable resources; can create long-term, stable source of revenue; and, can help build the community's entrepreneurial capacity. To do so, requires money (or capital, financing, investment). This Guide delves into this critical aspect on clean energy projects are address a number of topics:

- A. The Good Financing News on Clean Energy
- B. Stages of Project Financing
- C. Financing Realities
- D. Being Business-Like About Projects (instead of hopeful)
- E. The Features of Projects that Can Be Financed
- F. Early Stage Project Assessment Financing/Resourcing Models
- G. Feasibility Stage Financing Structures
- H. Negotiating and Financing the Community's Project Equity
- I. Project Capitalization Stage: Financing Points
- J. Sources of Project Capital
- K. Financing Premiums Based on 'Green' Values
- L. Financing Case Studies

The Good Financing News on Clean Energy

Renewable energy and energy efficiency projects have always been difficult to finance. Until recently, few indigenous communities in Mexico, Canada and the United States have been able to obtain the development and project financing resources to bring a project on line.

However, things have been changing for the past 3-4 years for two prominent reasons. Firstly, electricity markets in all countries, particularly Canada and the US, are becoming more constrained, and demand for new sources of generation has been rising. This has led to rising prices as renewable energy and energy efficiency projects offer more and more competitive rates of return. Secondly, The environment and social benefits of sustainable energy approaches is leading governments, electricity authorities and utilities to seek out 'small environmental footprint' generation/efficiency opportunities that have impacts such as the reduction of Greenhouse Gas emissions.

In addition, clean energy projects are becoming more likely to be financed because: Some indigenous communities have the capital to invest; and in some jurisdictions government programs in the areas of Climate Change and Clean Energy now exist.

So there are some positives to NA clean energy markets. But, many financing obstacles still exist for indigenous communities wishing to develop a clean energy project.

Stages of Project Financing

There are three major Financing Stages for clean energy projects. Each have their unique demands and requirements. In addition, through the whole cycle of the clean energy project, indigenous communities need support for ***On-Going Community Capacity Building and Project Development***.

Stage 1: Clean Energy Resource Assessment: Just because the sun shines, the wind blows and the water flows, doesn't mean that a clean energy project is doable. Communities need to assess whether the availability (amount, frequency, quality, etc.) of the renewable resource makes the project worth further development. It is also very useful to determine if the clean power generated/saved is financially viable: either in terms of a power sale to the electricity grid, or as a substitute for existing energy used in the community

Stage 2: Project Feasibility: Feasibility stage financing gets into the details of assessing the technical workability, costs and revenue potentials from the project. More resources tend to be required at this stage of the project than for Stage 1.

Stage 3: Project Capitalization: It is at this stage that the largest amount of funding is required for project design and engineering, technology purchase, approvals process (e.g. environmental impact assessment), construction and commissioning. Most projects will use a mix of equity (or investment from the partners) and debt borrowing from financial institutions

Financing Realities

Indigenous communities often have limited resources. It is therefore viable for a community to consider leading the project and seeking out financing for smaller energy efficiency or micro clean energy generation projects. In such instance, communities can follow the financing models and processes outlined in the following page.

However, in most cases, projects require more capital and know-how than the indigenous community is able to secure on their own, and partners are required. Done well, good clean energy partnerships work, and can provide a range of benefits to the community. In such cases, the *Financing Role of the Indigenous Community* tends to fall in the following areas:

- A. *Part of the Financing Team During Stage I and II:*** During the early and Feasibility Stages, indigenous communities are usually quite actively involved, often with partners, in trying to arrange financing. The challenge is to secure the funds needed, and usually a wide range of supports over these stages of the project.
- A. *Obtaining Financing for Project Equity:*** When it comes to obtain funds for equity in a project (to maximize the community's share of the project), the community is often on its own. Equity either has to be negotiated with partners (and here they are on the other side of the table), sourced from community resources, and/or obtained from public, private and foundation sources on terms that give the community some incentive. This is a major challenge.

Being Business-Like About Projects

Sustainable development is a holistic approach for community that integrates social, environmental and economic factors. Good clean energy projects developed by indigenous community should seek to balance social, environmental and economic considerations in making the project a reality. ***This makes a project more likely to be financed.***

Indigenous communities sometimes approach clean energy with an optimistic viewpoint and also stress the social interests of the community, and the environmental benefits of the clean energy approach. A balanced approach to project financing – integrating the three pillars of sustainable development – has though proven to be more effective. This would mean that:

Doing the Economic Numbers for the Project: Being realistic, or even cautious (i.e. conservative) about the projected financial costs and revenues from the project

Being Clear and Explicit About the Community Benefits Being Sought: Building in the planning and project development process the kinds of benefits that the community will gain through the project

Determining How and Valuing How the Project Protects the Environment: This would include ensuring that the project does not harm the environment, and valuing ways in which it protects the environment (e.g. GHG reductions, reduced environmental contamination, etc.)

Financing Case Study Canada: Upnit Power Corp. at China Creek

- ❖ The Upnit Power Corporation, whose controlling partner is the Hupacasath First Nation built a micro-hydro project on China Creek approximately 5 kilometers south of the City of Port Alberni on Vancouver Island.
- ❖ The Hupacasath First Nation, along with the minority partners of the Upnit Power Corporation, The City of Port Alberni, Ucluelet First Nation and Synex Energy, signed a long term Electricity Purchase Agreement with BC Hydro. The project, which is one of the first such projects led by a First Nation in Canada, was spearheaded by Chief Judith Sayers, President of Upnit Power Corporation.
- ❖ The micro-hydro powerhouse started operating in December 2005 and produces about 6.5 megawatts of electricity, enough to light up about 6,000 homes during peak periods.
- ❖ Vancity Capital Corp. (VCC) worked very closely with Upnit Power to arrange financing and structuring of the project. VCC assumed a share of project costs and debt in a syndicate with other partners including banks.
- ❖ Equity contributions totaled slightly over 30% of project costs which the community financed from its own resources, contributions from the governments of Canada and BC
- ❖ Financing was done on a long term basis

The Features of Financable Projects

Indigenous Clean Energy Projects that are financed, tend to demonstrate the following 'Top Ten' Features:

1. **Leadership:** Committed and capable local indigenous leader/champion
2. **Mandate:** Full support of the community (Councils, Elders, etc.)
3. **Sustainable Development Approach:** (see previous page)
4. **Management:** A sound management system often including Advisors
5. **Partnerships:** Clean and comprehensive *Partnerships* with qualified players
6. **Enterprise Model:** An enterprise or business approach to the project,
7. **Financing Negotiations/Planning:** Continuous and early discussions/negotiations with financing sources
8. **Equity:** Financial contributions of equity/resources from the community
9. **Government/Utility Support:** Support (especially in early stages) from governments or governments agencies, and electric utilities
10. **Financial Model:** Financial management of the project including control of costs during construction, and revenues during operation

In essence, to get financing at all stages, communities need to strive to have a good project – one which incorporates as many of the above features as possible

Early Stage Project Assessment Financing/Resourcing Models

Early Stage 1 clean energy project financing is typically required for:

- A. Technical estimation of wind, solar, hydro, geothermal or biomass resources or energy efficiency potential
- B. Preliminary estimates of projects costs
- C. Determination of the potential to gain revenue/offset costs with the project
- D. Identification of major project obstacles/risks (e.g. environment, technical)

The most effective Financing Model for this stage of a clean energy project involves

- ❖ Documenting community measures of resource quality: hydro, wind, solar, ecology, etc. Traditional knowledge is quite acceptable if it's written down
- ❖ Obtaining financial support from government programs (e.g. DOE, MREP, INAC)
- ❖ Drawing on other indigenous communities who've done clean energy projects
- ❖ Using community funds (or funds transferred from public agencies)
- ❖ Not-for-profit foundations
- ❖ Rural cooperatives or partnering with municipalities (for their funding options)
- ❖ Making application to public/aboriginal economic development agencies
- ❖ Arranging with technical experts on a pro bono basis (i.e. they work for free on an understanding they'll get more work/be paid if the project moves forward)
- ❖ Securing the services of an Advisor on a pro bono basis

Feasibility Stage Financing Structures

The Feasibility Stage generally requires more resourcing than early stage activities, and is usually much more complex. Often communities are faced with a decision at the feasibility stage of a project: does the community continue to run the project; is it time it bring in partners; or should the community take a smaller position in the project, and have a partner take the lead. This is not an easy decision. Factors like community capacity, size/nature of the project, technical complexity, and financing capacity are a part of the decision.

Generally, it is advisable for the community to bring in partners (if it hasn't already). This then positions the Partnership Team to work together to obtain feasibility financing. At this stage the effective financing model is to:

- ❖ ***Maximize the Percentage of Grant/Non-Repayable Contributions:*** The sources of funds are similar to those noted for Early Stage activities (previous page)
- ❖ ***Obtaining Financing from Partners and the Indigenous Community:*** In this instance any labor and cost financing will be recovered (or becomes an equity contribution) from the project when it is capitalized for during design and construction.

The link between these two mechanisms is very important to understand. Any grant/non-repayable financing that can be secured because of the indigenous community's role in the project, should allow the community to leverage a higher equity ownership in the project. *In essence, non-repayable funds and worth more than funds that have to be repaid.*

Negotiating & Financing the Community's Project Equity

By the time an indigenous community has reached the Capitalization Stage of a clean energy project, strong Partnership relationships will likely have been established. At some point in the process (which could be anywhere in the timeline from Stage 1 – 3), the community will sit down with partners to negotiate their share of the project. This usually happens when the other partners put an offer in front of the community. This is not a preferred route to take. It is far better for the community to manage the negotiating process, often with the assistance of Advisors. Using an ***Aboriginal Clean Energy Partnership Framework*** (see Partnering Guide) is one way to promote this happening. It all comes down to how the community finances its share of the project (the higher the percentage the better). There are ***Six Major Mechanisms to Fund Community Clean Energy Project Equity***.

- A. Project Rights:*** Recognition of indigenous rights to the land/resource use can translate from 1-8% of project equity. More would be good, but this is the norm
- B. Project Funded Equity:*** The community can negotiate from 3-20% of equity in the project through a 'carried interest' provision. In essence, the community's equity is paid from project earnings
- C. Feasibility Study Contributions:*** Funds obtained/contributed by the community for Feasibility Study activities should yield equity that 1.5 – 3 times higher than the amount of funds applied to the Feasibility Stage
- D. Government-Public Agency:*** Grant or concessional loans from governments or public agencies
- E. Community Funds:*** Funds from the community
- F. Bank Borrowing:*** Funds borrowed from the bank, backed by project equity. In some jurisdictions Aboriginal financing institutions exist

Financing Case Study US: United States

- ❖ The Rosebud Sioux Nations wind energy development was partially financed through 'Green Tags' revenue
- ❖ The purchaser of the 'Green Tags' was Native Energy, one of the leading US markets of green power
- ❖ A unique aspect of Native Energy's purchases, is the company's ability and willingness to purchase long-term 'Green Tags' generation, instead of the normal year-by-year purchasing practiced by most such companies
- ❖ For the Rosebud Sioux this meant revenue of \$200,000 which was applied to their equity in the project
- ❖ One of the risks associated with 'Green Tags' is that the power generator (in this case the Sioux Tribe) has to verify that the power has been generated from green sources. Thus, the community had to commit to provide regular reports on how the power it sold is being generated (in essence that the wind energy turbine is still operating)

Project Capitalization Stage: Financing Points

By and large indigenous communities will work with partners to finance clean energy projects. It should be noted, the projects overall do have access to various financing and tax mechanisms. Good project partners will know how to do this. However, the indigenous community needs to ensure it is aware of these mechanisms, and ensures that if they are used they are credited to the project as a whole (for equity or revenue), and not used to finance part of the other partner's equity.

- ❖ ***Tax Mechanisms:*** Federal and state/provincial governments in Canada, Mexico and the US offer tax incentives for renewable energy development (Canada's Renewable and Conservation Expenses, Canada's Capital Cost Allowance; US see DSIRE database, <http://www.dsireusa.org>; Mexico accelerated depreciation)
- ❖ ***Fiscal Mechanisms:*** Some jurisdictions all shares in renewable projects to the 'flowed through' subjecting the investor to a different tax regime.
- ❖ ***Funding Incentives:*** Several jurisdictions provide financing for renewable energy and energy efficiency once the project is complete. These should be project revenue
- ❖ ***Renewable Energy Financing:*** There are a large number of financial institutions that provide renewable energy financing. A key resource is the *Directory of the Renewable Energy Finance and Investment Network (REFIN)* based in the US listing institutions which tend to offer more competitive financing to clean energy projects
- ❖ ***Environmental Financing:*** The key environmental financing mechanisms involves the sale of GHG offsets or air emission credits that result from the project (see Premiums Based on 'Green' Value slide)

Financing Premiums Based on 'Green' Values

The Environmental Financing dimension for renewable and energy efficiency projects is very interesting, and growing in importance. These *'Green' Financing Premiums* are very relevant to project financing and financial performance. The types *Green' Financing Premiums* are as follows.

- A. *Renewable Energy Certificates:*** Also known as 'Green Tags', Renewable Energy Certificates are recognized in the United States, and to a certain extent in Canada, as an instrument which can be sold to a buyer who has regulated obligations to reduce the amount of pollution they emit, or buy a 'Green Tag' from someone (like an Aboriginal clean energy project) who doesn't emit a certain level of pollution.
- B. *GHG Offsets:*** GHG Offsets operate very much in the same way as Renewable Energy Certificates, but apply to how renewable energy emissions 'offset' power from fossil fuel sources. This market is nascent, but rising in important in North America.
- C. *Green Power Pricing:*** Green Power pricing represents a 'value' because the power purchaser is willing to pay a higher price for cleaner power. Green power pricing does exist in approximately 30 states in the US, the greater Mexico City, and province like Ontario (through Bullfrog Power).

In many cases, the Power Purchase Agreement for a clean energy projects includes the 'green premiums' flowing from the project to the buyer of electricity, at a premium price.

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