

North American Fund for Environmental Cooperation (NAFEC)

During the past 5 years the North American Fund for Environmental Cooperation (NAFEC) has granted funding of over \$ 600,000 (US) to a variety of projects related to renewable energy, “green” electricity sources and energy efficiency.

RENEWABLE ENERGY AND ENERGY EFFICIENCY PROJECTS

St. Regis Mohawk Tribe/Pace Energy Project (New York, USA) - 1997 grant Pace Energy Project , USA (97,300\$)

Summary : The members of the St. Regis Mohawk Tribe (SRMT) have been suffering from the burden of the ever increasing energy costs which have taken a toll on economy and individuals alike. The SRMT has joined with the Pace Energy Project and the Akwesasne Power Authority to find a better way (other than importing expensive, fossil fuel-based energy onto SRMT lands) to meet SRMT members' needs for energy, while creating new economic opportunities for SRMT members in clean energy technologies. The project will continue the SRMTs investigation and implementation of renewable energy options (such as windpower, biomass and small scale hydroelectricity) on SRMT lands. It will also expand the project to include development of a Community Energy Cooperative which will provide bills reductions to members through wholesale power purchases; and funding for energy efficiency option installation through profits from energy and fuel sales.

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Energy conservation to complement the village hybrid system of Xcalak, Quintana Roo (USA/Mexico) - 1997 grant New Mexico State University , USA (97,300\$)

Summary : Environmentally sound technology introduced without developing the capacity of local people and institutions is unlikely to be successful. The small fishing village of Xcalak is currently served by a wind/solar/diesel hybrid electric system that replaced the worn-out diesel generator set five years ago. To date, the villagers have not received adequate training in the operation, maintenance and administration of their system and they feel 'powerless' to affect the necessary changes to improve the system. The lack of electric meters in the village has resulted in uncontrolled energy use and difficulties in billing and collections, The resulting lack of adequate revenue is manifested in a poorly maintained, unsatisfactory electric system and in general village discontent with the system. The project will attempt to resolve these problems and serve as a model of how to integrate energy efficiency and institutional support activities into village electrification projects using renewable energy.

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Chickaloon Hydropower and Village Development (Alaska, US) - 1996 grant Chickaloon Village , USA (100,000\$)

Summary : Small-scale hydropower is one form of sustainable energy generation that an increasing number of communities are exploring. Smaller, more isolated communities are particularly interested in developing self-sufficiency and avoiding the expensive and inefficient transport of energy over long distances. The Chickaloon tribe will study the feasibility of small-scale hydroelectricity generation which will form the basis of a comprehensive economic development scheme and construction of a central village which will assist in maintaining Chickaloon culture.

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The Eco-efficient Communities Initiative: facilitating greenhouse gas emissions reductions in small and mid-sized communities (Alberta, Canada) - 1997 grant
Pembina Institute , Canada (75,000\$)

<http://www.pembina.org>

Summary : While mitigating climate change is a key policy objective of all three NAFTA governments, none has yet developed an effective plan to meet its existing international commitments to reduce greenhouse gas emissions. Municipal governments, with their responsibilities for land use planning, building standards, waste management and water and transportation infrastructure, are uniquely positioned to take actions to tackle many of the most important sources of greenhouse gas emissions. Unfortunately, most small and mid-sized municipal governments are simply struggling to maintain existing services in an era of reduced municipal budgets. As a result, few have the resources to explore the potential economic and environmental benefits of actions in different opportunity areas such as energy and water efficiency improvements, renewable energy use, waste minimization, urban afforestation and reduced use of transportation fuels. This stage of the Eco-efficient Communities Initiative will provide ten municipalities with encouragement, guidance, detailed information and tools to identify, design and implement cost-effective actions that reduce greenhouse gas emissions.

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Eco-efficient Community Initiatives (EECI) - Phase II (Canada) - 1999 grant
Pembina Institute , Canada (35,000\$)

<http://www.pembina.org>

Summary : While mitigating climate change is a key policy objective of all three NAFTA governments, no North American country has yet developed an effective action plan to meet its existing, much less its future, greenhouse gas emission reduction commitments. Municipalities, as centers of human activity, are responsible for a large portion of Canada's greenhouse gas emissions. Municipal governments have responsibility for local land-use planning, building standards, waste management, water, sewage and transportation infrastructure and are thereby uniquely positioned to initiate actions in their own operations and on a community-wide basis. Unfortunately, most small and mid-sized municipal governments are simply struggling to maintain existing services in an era of reduced municipal budgets. As a result, few have the funds, staff or in-house expertise to explore the potential economic and environmental benefits of eco-efficiency actions within their own municipal operations and communities. The Eco-Efficient Community Initiatives (EECI) is a successful, growing Alberta-based program that provides small and mid-sized governments (40,000 population or less) with guidance, detailed information and the tools needed to identify, design and implement cost-saving actions to improve municipal sustainability and reduce greenhouse gas emissions. EECI currently has 10 Alberta member municipalities. The Pembina Institute implements EECI in collaboration with municipal governments interested in improving their municipal eco-efficiency through concrete actions. The program first assists each municipality in establishing their energy, water, waste and greenhouse gas baselines. EECI then guides the municipal government to explore the potential economic and environmental benefits of actions in different opportunity areas, such as: improved energy, water and wastewater efficiency, renewable energy use, waste minimization, urban reforestation and reduced use of transportation fuels. The next step is to help the municipality develop a local action plan and implement concrete actions to improve eco-efficiency within all its municipal operations and the community as a whole. The benefits to municipalities from improving their eco-efficiency include reductions in capital and operating costs, increased local employment, greenhouse gas reductions and a variety of additional environmental and community benefits. Newsletters, the Internet site (<http://www.pembina.org/eeeci/default.htm>), a searchable database of success stories, articles in association newsletters, media events, public speaking events, and regular contact with other organizations working to improve the environmental health of municipalities have been effective at promoting EECI initiatives. This has triggered interest and initial meetings on adaptation of the EECI program for delivery in Saskatchewan and Manitoba. NAFEC Phase II funding will cover: ? upgrading and expanding EECI information resources, ? increasing regional program delivery/support services and adding 10 new members, ? expanding the success stories and website tools, ? program development in Manitoba and Saskatchewan, ? promotion of local multi-stakeholder committees, and ? development of regional delivery agents and partnerships.

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ENVIRONMENTAL PLANNING/DESIGN AND ENERGY SAVINGS PROJECTS

Market Promotion in the Green Building Materials and Services Sector (Canada/USA) - 1999 grant Société de développement communautaire de Montréal (SODECM), Canada (25,000\$)

<http://www.web.net/urbain/esodecm.html>

Summary : The way we build our cities is a crucial factor in our interaction with nature and a main determinant of how well or poorly humanity will fare as stewards of the planet in the next millennium. The Groupe-ressources en Eco-design (GRED) is one of the many community-based organizations throughout the continent that are striving to improve the ecological health of our cities by encouraging those involved in residential design, construction, renovation and maintenance to adopt ecological practices and materials. Among these groups, GRED is well situated to move forward, not only in creating a local market for ecological building materials within the Montreal area, but to undertake work that will strengthen the network of loosely affiliated groups across the continent and to model the tools that will help other groups in their own local markets. GRED will promote ecological housing by working at a number of different levels, including government policy, industry practices, and consumer choices. Initiatives in 1999–2000 include: 1) Criteria Development Project: facilitate a discussion among North American eco-materials groups to develop qualitative criteria for the identification of “green” building materials. 2) Eco-Materials Catalogue: complete a detailed catalogue of green building materials available in the Montreal market area. 3) Home Green-Up Manual: create a practical guide for Montreal residents to use in improving energy efficiency and indoor air quality, and to reduce water usage and waste generation. 4) Research Study on Overcoming Barriers to Green Housing: identify the barriers to the development of a market for eco-materials in the Montreal area and propose strategies for overcoming them.

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Eco-design Resource Group (Montreal, Quebec, Canada) - 1997 grant Société de développement communautaire de Montréal (SODECM), Canada (80,000\$)

<http://www.web.net/urbain/esodecm.html>

Summary : In many North American cities, much old stock housing is undergoing renovation. What materials should be used in the reconstruction and renovation and how is residential space to be designed for energy conservation? The multidisciplinary Eco-design Resource Group will explore these issues and put their findings into practice both at the Urban Ecology Center where they are based and through recommendations to the housing cooperatives with which they are associated. Exhibits at the Center and information disseminated via a community newspaper and homepage will showcase environmentally friendly products and materials, eco-interiors and furnishings, alternative heating and lighting practices, solar design, composting at home, etc.

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Integrated Ecological Planning as a Contribution to Improving Urban Environmental Infrastructure (Mexico/US/Canada) - 1996 grant Foundation for the Children of the Californias, USA (70,000\$)

Summary : Making the direct link between human health and the environment, this tri-national initiative will integrate environmentally-sound design into the construction of a pediatric hospital in the Tijuana/San Diego area. The project will provide a model for improving environmental quality in relation to construction processes, facility management, energy use, water recycling and waste disposal and will demonstrate the benefits of integrated ecological planning and design for similar types of urban site developments in North America.

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NAFEC of projects related to renewable energy, “green” electricity sources and energy efficiency

INFORMATION MANAGEMENT OF POLLUTION DATA RELATED TO ELECTRICITY GENERATION

Building an Environmental Justice Network through Citizen Monitoring, Air Sampling and using Geographic Information Systems (USA) - 2000 grant

Little Village Environmental Justice Organization (LVEJO) , USA (25,000\$)

Summary : The thirteen square kilometer South Lawndale or Little Village area of Chicago contains the region’s largest coal-burning electricity generating plant, five Superfund sites and half a hectare out of every two is industrial (75% of which are adjacent to residential areas). Within metropolitan Chicago, it has some of the highest levels of 6 hazardous air pollutants and one of the highest rankings in the total amount of Toxics Release Inventory (TRI) chemicals generated, treated, transferred or disposed of locally. Many residents of the community live well under the poverty level and the median age is the youngest among Chicago’s 77 communities. The rate of asthma is >15% and of childhood lead poisoning >30%. Local residents confront environmental health problems continually and have much knowledge and experience to bring to bear on seeking solutions. This project will equip them to more effectively access, interpret and use environmental information, including data that they collect themselves (through air sampling and mapping) and from secondary sources such as Pollutant Release and Transfer Registries (PRTR).

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