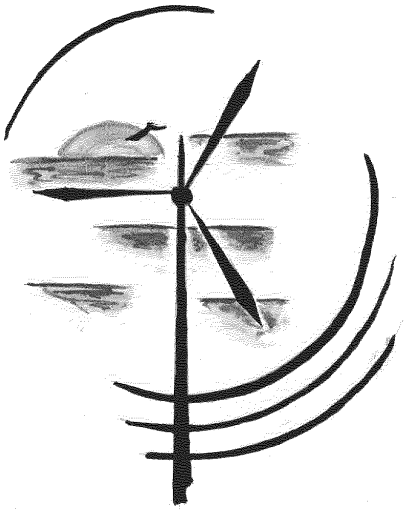
Power Up Renewable Energy Co-operative Inc. [PURE]

Business Plan



March 2004

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1.0 - Executive Summary

The effort to form a renewable energy co-op had its genesis in May of 2003 following the OSEA information meeting held in Shelburne during April 2003. Following this OSEA meeting, a number of interested individuals met several times with the objective of forming a co-operative in Dufferin County. The aim of which was to promote and organize the adoption of renewable energy sources.

During the fall of 2003, as the goals of the group became more defined, its name was changed to Power-Up Renewable Energy. In January 2004 PURE was incorporated as a not for profit Co-operative.

The formation of PURE is a community response to concerns regarding electricity supply in the Province of Ontario. In the report of the Supply and Conservation Task Force entitled **"Tough Choices: Addressing Ontario's Power Needs",** dated January 2004, the task force reported to the Energy Minister that "current projections suggest that without new supply and significant conservation efforts, Ontario could have insufficient power to meet its peak requirements by 2006. By 2014 the province would have **only half the generation capacity** it needs to insure adequate and reliable electricity service". Among the Task Force recommendations were creation of a "conservation culture" in Ontario, implementation of a Renewable Portfolio Standard requiring 5% of the province's power be generated using renewable resources in 2007 increasing to 10% in 2010, and changes in electricity market design to enable distributed generation. In solving the problem of future power needs the Province is considering importing energy from Quebec and Manitoba, construction of gas fired power plants and new nuclear power plants.

With the change in leadership at the end of 2003 the government's energy policy is still in transition. However, actions seem to be following the recommendations of the Task Force. The government has announced it will be issuing a request for proposal for 300 MW of renewable energy followed by another 2500 MW to be installed no later than 2007.

Although "community action" is not specifically identified in government actions thus far, the founding members of PURE believe that the community, by becoming aware and involved in energy conservation and power generation, will be successful in securing the power that it needs at the lowest possible total cost.

The initial Business Plan has been written identifying how PURE will formally establish itself and how it will evolve and conduct its business over the first five years, although it has a vision horizon of between 20 and 25 years.

2.0 - Vision, Mission, Goals and Objectives

2.1 Vision:

To create and implement a secure "community based energy system" which is responsive to the needs of the residents of Dufferin County and which is aligned with the values of sustainable energy use and production.

By insuring a secure energy supply to a defined community at reasonable total cost, PURE will become a model for rural community energy system development.

2.2 Mission:

Power Up Renewable Energy is a non-profit co-operative with a mission to create a "community based energy system" in Dufferin County established on the principles of encouraging sustainable and responsible energy generation and use.

2.3 Goals:

- Engage the community, schools, business and government in energy conservation and renewable energy projects.
- Obtain the support and financial backing of the provincial government and energy utilities.
- Develop a framework with the government and energy utilities where efforts to reduce energy consumption and increase renewable energy are measured and rewarded.
- Identify and develop local energy resources (such as wind, solar and micro-hydro) in Dufferin County, Ontario and the surrounding areas in co-operation and collaboration with the community.
- Enable individuals and businesses to invest in sustainable energy projects that yield a stable and reasonable economic return.
- Contribute to the development of Dufferin County and the surrounding areas as a sustainable society and economy through the development of community based renewable energy projects.
- Enhance local prosperity by reducing the dependence on imported energy, achieved through energy conservation and sustainable energy generation.
- Promote renewable energy through education, advocacy and project development.
- Advocate market and legislative changes that will facilitate the development of micro generation.
- Promote local energy solutions that are consistent with the environmental standards recognized by the Co-op and which bring economic benefit to the community.
- Advocate an electricity market design that is responsive to community involvement and action.
- Encourage investment (both private and public) which is consistent with the stated Objectives
- Collaborate with and endorse suppliers of services and equipment who will help the Co-op attain its Objectives

2.4 Objectives:

Identified below is a preliminary list of candidate objectives for the initial 12 month period (Phase 1).

To have:

- Fully developed the value proposition for a "community based" energy system by the end of 2004
- Submitted a proposal to obtain financial support of the provincial government and electrical utilities by the end of 2004.
- Made every household in Dufferin County aware of energy issues and PURE and its goals by the end of 2004
- Made every business in Dufferin County aware of PURE and its goals by the end of 2004
- Made contact with and introduced PURE to all levels of government representing Dufferin County by the end of 2004
- Signed up a minimum of 1000 Co-op members by the end of 2004
- Completed an energy consumption survey of all Co-op members by the end of 2004
- Developed and presented a 5 yr and 10 yr plan for the development of a "community based" energy system for Dufferin County and surrounding regions.
- Presented a plan to reduce power consumption in the County by 10% over a 3-year period commencing January 2005.
- Obtained and provided information to residents of Dufferin County to allow the achievement of the power reduction plan by the end of 2004.
- Through OSEA and other channels make contact with and set up the appropriate linkages with Co-ops in adjacent jurisdictions
- Analyzed the business case for near-term development of wind power in Dufferin County.
- Analyzed the business case for PV-home power solutions such as the PV home development by Arise Technology in Waterloo
- Determined the hydropower potential in Dufferin County.
- Examined how the aggregation of energy purchases could be used to achieve Co-op Goals.

3.0 - Co-operative Overview and Core Values

3.1 – Co-operative Overview

The “PURE” Co-operative has developed over a period of months subsequent to the information meeting convened by OSEA in Shelburne April of 2003. A group of dedicated individuals have been meeting regularly to found a viable Co-operative group for Dufferin County. They are passionate about the development of “low impact” alternative energy generation such as wind, solar power, and micro-hydro, and the introduction and application of energy conservation practices.

Various people attended the meetings to offer their input, views and express where their interests lay as the structure and objectives of the co-operative construct and purpose was developed. In the Fall of 2003 it was believed there was sufficient understanding of the role, purpose and influence of a Co-operative that it was proposed to hold a Founding Meeting in the latter part of February 2004 to acquire a membership, elect officers and plot the future course.

The energy concerns of the community will determine the direction of the co-operative, namely:

- the containment and, perhaps, reduction of total electrical power costs
- improving the security of supply – through gaining greater control over electrical power generated and supplied to the community
- insuring the long-term electrical power supply
- having available renewable energy sources consistent with low environmental impact
- facilitating the local generation of electrical power

In the future, business opportunities may evolve that the co-operative may choose to financially support or give endorsement to profit making businesses entities to pursue. These could include:

- energy conservation
- energy generation
- energy education

By addressing the community concerns and acting on its behalf the co-operative will create a “community based energy supply system”.

3.2 Core Values

- Energy situation awareness and education
- Energy Conservation
- Minimal environmental impact
- Maximum use of renewable resources
- Advocacy of sustainable energy production
- Security of energy availability and supply

4.0 Defining and Establishing a "Community Based Energy System"

A "Community Based Energy System" involves the whole community in which it is established and serves in energy system decision-making. It would seek to minimize cost while enhancing the security of supply. It can put in place long range plans for sustainable energy supply based on the community needs.

Consistent with community action and environmental standards of the community the Co-operative will serve the interests of its members through:

- Promoting energy conservation
- Promoting renewable energy and the market design that will enable it
- Promoting local energy solutions that are consistent with environmental standards of the group and which will bring economic benefit to the community
- Promoting an electricity market design that enables community involvement and action

Beyond acting as an advocate, the Co-operative will be a voice for community based solutions that are consistent with these values in the form of attracting financial investment (both private and public) and representing suppliers of such services both within and outside the community who will work with the co-operative to meet its objectives.

A "community based energy system" can bring the greatest benefit to the community in terms of:

- Lowest cost and highest security of electricity supply
- Measurable reduction in environmental impact for energy generated for the community
- Economic benefits to the community
- Involving the community in energy system decision-making through representing the voice of its members

In the execution of its business plan, the Co-operative will use the voice of its membership in the community, to government and the business community to recommend solutions consistent with the core values of the Co-operative: energy conservation and the promotion of sustainable energy by an environmentally acceptable means of power generation at reasonable cost and for the greatest benefit to the community.

5.0 - Benefits of Membership

- You will be part of a strong voice which can speak to the community, government and business to propose, advocate and recommend solutions consistent with the core values and goals of the Co-operative
- You will have voting rights at Power Up Renewable Energy Co-op AGMs
- You will be associated with a group with definite and stated energy values
- You will be associated with a group with political influence
- You will be associated with a group with purchasing influence
- You can become involved with a project support group
- You can become involved with a committee or a group to achieve the stated Objectives of the Co-op
- You will benefit from the information gathered by members and distributed to members
- You can join with others of like mind and aspirations to achieve your personal energy related objectives
- You will start to obtain a measure of control over your destiny as energy consumers and perhaps, eventually, producers.

In the future, benefits of membership may extend to:

- Discounts for energy services resulting from energy projects facilitated by the Co-op
- Reduction or containment of the total cost of electrical power
- Truly securing the source of energy supply

6.0 - Prospective Membership

Dufferin County is located in South Central Ontario and occupies 1442 sq kilometres NW of Toronto. Its population is in the order of 50,000 and comprises a mix of:

Individuals
Families
Farming and agricultural interests
Small and medium businesses
Service, manufacturing, processing

Membership can be drawn from and have an appeal to all of these classifications.

Proposed Founding Member fee structure:

See Section 9 Financial Requirements.

7.0 - Membership Acquisition

Promote membership with the theme(provisional) of “Be green, be conserving - Be PURE”

The membership campaign will target individuals, families, businesses, groups, municipal and town councils.

The initial campaign will culminate with the Founding Members meeting in February 2004.

Advertising for members will be by word of mouth, flyers, articles and advertisements in the local media, posters in places of business, a telephone and email campaign. In addition, a website has been created to provide information and progress reports, announce events and seek input. See www.powerupenergy.ca

8.0 - Power of the Co-operative

The power of the co-operative is directly linked to the number, the will, the energy, the involvement and motivation of the membership.
If it can attract better than 50% of the residents of Dufferin County and adjacent areas and include a diversity of interests, then the power and influence of the Co-operative will be significant.

The Co-operative derives its appeal from addressing popular concerns regarding energy. The concerns that have been voiced are:

"The Province is facing an energy crisis – what can we do about it?"

"As electricity pricing moves towards "full cost" pricing, rural communities will pay more for electricity; and the service will become increasing unreliable – what can I do to mitigate the effects of this?"

"The energy supply will become less secure in the new electricity market – is there something that can be done to counter this?"

"The Community wants to move towards greater self-sufficiency in determining its energy future – is this possible?"

"The membership wants to develop renewable energy within the community – how do I get involved"

The timing may favour community action. With the recent change in provincial government, the market design for electricity and the way electricity is bought and sold, may change. As a Co-operative or in collaboration with other co-operatives there could be sufficient pressure to influence government intentions and to accelerate certain initiatives. For example, if the current pricing formula is a step on the road to free market pricing then we, as consumers, may want to have interval meters (time of use) installed prior to that happening. As a group of co-operatives we could have sufficient influence to make the government move to do this.

9.0 Financial Requirements, Plan, Membership Fees and Fund Raising

9.1 Co-operative establishment costs

There are certain costs, fees and charges to establish, register and incorporate a not-for-profit Co-operative organization in Ontario.

These are:	Name search:	$72.10
	Registration fee:	$155.00

At this time these financial obligations have been borne by the Directors and Steering Committee members by each contributing a minimum of Cdn$20.00.

In order to organize and convene a Founding Meeting, additional costs, fees and charges have been incurred. To cover anticipated obligations a motion was presented and carried at the meeting held November 20th '03 in Shelburne that an individual Founding Member's Donation of Cdn$20.00 will be the membership fee for all those joining up to and including the conclusion of the Founding Meeting.

This donation will represent the Co-operative membership fee for the donors until the end of the first financial year.

9.2 Membership Fees

However, it is recognized that there is a benefit to attracting as many people as possible to become Founding Members. To that end a more comprehensive Founding Members fee structure has been proposed as follows:

Individual: $20.00
Family: $35.00 (1 Vote)
Individual over 60 or under 21 years of age: $15.00
Individual life membership: $500.00
Family life membership: $900.00

Corporate: (annually) (1 Vote)
Small business – 10 employees or less: $100.00
Business with 11 – 50 employees: $250.00
Business with 51 – 100 employees: $500.00
Business with over 100 employees: $1000.00

Future Co-operative membership fees and charges will be established and administered by the elected Board of Directors as per the By-Laws.

9.3 Preliminary Budget – 2004

The following list of expenses gives an indication of the costs that could be incurred during the initial 12 months following the establishment of the Co-op.

1.	Quarterly newsletter and mail-out -	$2,000
2.	Publicity -	$2,000
3.	AGM facilities -	$1,000
4.	Expert Consultation -	$5,000
5.	Working Group and Committee expenses -	$4,000
6.	OSEA and other memberships -	$1,000
	Total:	$15,000

9.4 Fund Raising and Financial Support

Fund raising and seeking financial support will be the responsibility of the elected Board of Directors.

Although some public funding may be available for specific projects, PURE will be highly reliant on memberships to achieve its objectives and meet its budget. Based on the expected costs listed above PURE should attempt to raise at least $20,000 in the first year.

10.0 Officers and Initial Steering Committee of the Co-operative

10.1 Co-operative Officers

Currently, PURE has installed the required legal number of Directors to allow the Co-operative to be recognized, register as a non-profit organization and incorporate by consensus of the initial Steering Committee.

These Directors are:

Jeff Gold

Don Hayward

Tony Howard

Chris Kotwas

Robert Strang

Terry Williams

Supplementary information on the Directors is provided in Appendix 1

10.2 Steering Committee

In addition, an initial Steering Committee has been formed from the core group comprising 12 members that have pursued the formation, establishment and initial direction of the Co-operative.

Information on Members of the Steering Committee is contained in Appendix 2

10.3 Standing Committees

In order to provide a foundation for executing the various objectives and initiatives a number of committees have been identified and some are functioning in a preliminary way.
The committees are:
Membership
Media
Outreach/networking
Technical
Political liaison
Education
Co-operative Purchasing

Additional information on the Standing Committees is contained in Appendix 3

After the Founding Meeting the initial Steering Committee will be disbanded and the committees formalized to pursue particular interests and activities.

11.0 – Structure and Organisation of the Co-operative

The true operating structure and organisation of the Co-operative has yet to be established and it is anticipated this will occur subsequent to the Founding Meeting under the direction of the elected Board of Directors.

Until that occurs, as has been identified in Section 9.0, there is an Interim Board of Directors, a Steering Committee and 7 project or activity related committees
.
It is the intention that at the Founding Meeting scheduled for late February 2004 a slate of nominees for Directors will be published and a Board of Directors will be elected to carry on the business and activities of the PURE Co-operative.

12.0 - Communication, links and co-operative network plan

PURE intends to join OSEA as well as other energy co-operatives in North America.

13.0 Strengths, Weaknesses, Opportunities, Threats (SWOT) Analysis

Strengths

1. **Strength**: By virtue of its membership and its common values the power of the co-operative is strong and influential.
2. **Strength**: The physical beauty of the county provides a compelling case for sustainable energy.
3. **Strength**: Working in a network such as OSEA, PURE may combine its voice with others in presenting issues.

Weaknesses

4. **Weakness**: Need to win franchise, market access and other credits for community action and co-operative from government and existing power utility. Existing power utility/distribution companies may not want to deal with a Co-operative.
5. **Weakness**: Renewable energy sources may be insufficient to meet community needs.
6. **Weakness**: Small power system technology; high cost and unproven reliability.

Opportunities

7. **Opportunity**: Government is highly challenged and looking for solutions. Energy conservation and renewable power will help to mitigate the pain and are the quickest to implement.
8. **Opportunity**: Power generation and smart conservation technology is emerging in the small power market place which can deliver local benefits and which can result in local economic activity.
9. **Opportunity**: PURE, if successful can be a model for other community energy cooperatives. Community based energy systems could become a model for rural energy systems.
10. **Opportunity**: By creating a more sustainable community the value of residence in Dufferin County will increase.

Threats

11. **Threat**: Existing distribution companies will take communication role and offer the services that PURE provides. PURE needs to be a superior channel for information into the community and thereby prove its value.
12. **Threat:** The energy shortfall will be addressed in the long run through mass procurement of imported energy from Quebec and Manitoba or from new nuclear power plants. The net effect will be that renewable and small power may be squeezed out of the market as they were 50 years ago.

14.0 Prospective Initiatives of the Co-operative

It is not unrealistic for the PURE Co-op Business Plan to address a period of 20-25 years from the Co-operative's establishment. These can be broken down into phases. At this point it is only possible to realistically address what might be referred to as Phase 0 - the process leading up to the establishment of the Co-op; and Phase 1 - a period of 12 months immediately following the establishment of the Co-op. The details of which will be established by the elected Board of Directors at the Founding Meeting.

During Phase 0:

The initial Steering Committee has begun to investigate certain avenues associated with the pursuit of producing alternative sustainable sources of energy and to establish and implement an energy conservation program within the PURE jurisdiction.

These are:

- use of wind powered electrical generators
- use of solar panels to generate electrical power
- development of micro-hydro installations for the generation of electrical power
- understanding the market design which will enable small power access
- working with schools to encourage public energy awareness and energy conservation

It is believed these will be continued during Phase 1.

In addition, during Phase 1 projects such as energy consumption mapping and use, introducing the Co-op to government, better understanding of alternative energy production sources, access to interval/'smart' meters, dissemination of information and fund raising are likely to be pursued.

Additional activities will be the determination of wind resources and the creation of a plan for community involvement in wind power generation. Also, the identification of issues involved with micro-hydro in conjunction with the local water shed conservation authorities.

Appendices

Appendix 1

Interim Board of Directors

Jeff Gold

Jeff Gold has been involved in sustainable development in one form or another since 1970. He has farmed organically in Ontario, Nova Scotia, West Virginia, Pakistan and St. Lucia. As a carpenter, contractor and construction manager he has focused on energy efficiency, renewable energy and 'green' building practices. For the past five years he has been project manager for the Whole Village group (www.wholevillage.org), creating an ecovillage on a 200-acre farm in the Town of Caledon, northwest of Toronto, Canada. He resides in Alton, Ontario.

Don Hayward

is a 19 year resident of Dufferin County. The efficient use and reduction of total use of all forms of energy are his goals, as well as the substitution of present sources with renewable, environmentally sensible energy production.
Don works for a large international electrical company. He grew up at a hydro-electric generating site in northern Ontario.

Tony Howard

very interested in seeing viable alternative energy sources developed in Ontario. Believes the province should become self sufficient in energy generation, should be provided at cost to residents and businesses.
Tony has been associated with the aerospace industry his entire working career. Took early retirement from Bombardier Aerospace and is VP Business Development and Customer Support for Crossflow Aero Corp. in Shelburne.

Chris Kotwas

Robert Strang — Self-employed chemical engineer for 25 years. Member of the Green Party and now Councillor in Orangeville.l

Terry Williams

Appendix 2

Steering Committee Members

The names listed below are those of the ladies and gentlemen who formed a Steering Committee to guide the activities of the PURE Co-operative in its formative stage.

Franca DeAngelis
Matthew Fairlie
Andrew Gilbert
Jeff Gold
Don Hayward
Tony Howard
Dennis Kidd
Chris Kotwas
Rob MacDonald
Fred Nix
Roger Pettit
Richard Procter
Donald Raeburn
Sheila Stene
Rob Strang
Katharine VanSittart
Harold Whyte
Terry Williams
Peter Yan

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Appendix 3

Standing Committees – members, function and objectives

1. Technical Committee

Roger Pettit, Rick Dewsbury, Terry Williams, Don Hayward, Harold White, Jeff Gold

Functions and Objectives

- The technical committee will co-ordinate the collection of technical data on all forms of renewable energy and conservation.
- It will be a source of accurate information for members and the Education Committee. Every effort will be made to ensure that the information accurately reflects the advantages, disadvantages and costs of energy production now and in the future.
- It will co-ordinate and facilitate projects undertaken by PURE or Groups Associated with PURE.
- It will collect information on alternative energy projects in our area including private efforts.
- It will provide a focal point for members with interests in the production of alternative energy.
- The technical committee will hold meetings and communicate via email and by postings on the PURE web site.

2. Education Committee

Theresa Sauren, Aurora Hayward, Franca DeAngelis, Matt Fairlie, Richard Procter, Tony Howard,

Functions and Objectives:

- To facilitate workshops and create learning materials in order to educate the community about energy conservation
- Make the community aware of power generation choices and their environmental impacts, including but not restricted to coal fired and nuclear energies
- Promote and provide up to date information on Renewable Energy including: Wind, Solar, Run-of-river hydro, bio-gas, bio-mass and the industry surrounding it's potential use
- Invoke passion in and empower individuals regarding both energy and environmental issues
- Format displays and presentations, that can adapt to target all age groups, dependant on the type of forum we are attending
- Compile data based on the functions of this committee so that; we are able to measure the success of our Education program, therefore allowing this outreach process to be

constantly progressive, and to also obtain an accurate measurement of accomplishment
- Research and implement projects leading to the conservation and efficient use of all types of energy, using energy efficient devices such as light bulbs and appliances, heating systems, and insulation and draft reduction. Both retrofit and new construction.
- Research and create a list of recommended products, contractors, and suppliers

3. Media
Richard Procter, Theresa Sauren

Functions and objectives
- Create and oversee distribution of timely information releases for local media
- Liaise with local media to make sure our activities are in focus
- Scan local media for event and outreach opportunities
- Maintain website by combining group input and other relevant content
- Help prepare information materials such as posters, brochures, and event displays
- Help coordinate outreach opportunities with local media and other groups

4. Political Liaison
Rob Strang, Fred Nix

Functions and Objectives

- To ensure political representatives in Dufferin County are aware of PURE and its goals and objectives, such that they will recognize and act on opportunities that mutually benefit PURE and their municipality.

- Encourage and assist municipalities to develop policies and by-laws that facilitate the development of renewable energy.

- Encourage and assist the provincial and federal governments to develop policies and programs that facilitate the development of renewable energy.

- Act as liaison with municipalities to ensure that PURE projects proceed with the cooperation and support of local governments.

- Provide a conduit for regulatory and government policy information on renewable energy issues to flow to PURE

5. Outreach/Networking
Matt Fairlie, Jeff Gold

Functions and Objectives

Liason with other renewable energy cooperatives and community based initiatives in Ontario, Canada and the rest of the world, in order to share our experience and to learn from the experience of others (i.e. Positive Power, Hearth-makers Energy Co-operative, The Grey Bruce Renewable Energy Co-operative, Windfall Eco-works, Eco-Perth, Community Renewable Energy

Works, Eco-Energy Durham)

To work with other organizations, agencies and groups to promote the PURE agenda (i.e. Ontario Sustainable Energy Association, Canadian Wind Energy Association, Independent Power Producers of Ontario, Ontario Clean Air Alliance, Toronto Environmental Alliance, Canadians For Renewable Energy, Solar Energy Society of Canada, Canadian Association for Renewable Energy, Conservation Council of Ontario, Energy Probe, the Sustainability Network, Ontario Power Generation, Hydro One, Ontario Ministry of Energy, Natural Resources Canada)

To convey information gleaned from all the above sources to the Membership in a timely manner

To coordinate PURE activities with other groups that support PURE's general aims and objectives (i.e. Caledon Countryside Alliance, Dufferin Sustainability {???}, Ontario Federation of Naturalists, the Smart Growth Network, Whole Village, Everdale Environmental Learning Centre, the Ecology Retreat Centre)

To carry on any other networking and liaison activities as directed by the Board.

6. Membership

Don Hayward, Chris Kotwas

Functions and Objectives

- Sign-up new members, ensuring that the contact information is complete and a receipt had been issued.
- Maintain the membership list/data base.
- Provide lists of members sorted by interest to the various committees.
- Issue notices of membership renewal.
- Ensure that an accurate membership list is maintained at the head office.
- Conduct membership recruitment efforts in conjunction with other committees.

7. Co-operative Purchasing

Andrew Gilbert

Functions and Objectives