

ecoENERGY for Renewable Heat Program
CALL FOR EXPRESSIONS OF INTEREST
RESIDENTIAL PILOT INITIATIVE (RPI)

For the large-scale deployment of solar domestic water heaters into the residential sector

Call Opens – July 6, 2007

Call Closes – September 28, 2007

Funding Authority – ecoENERGY for Renewable Heat Program,
Natural Resources Canada (NRCan)

Inquiries – Address all inquiries regarding this initiative to Jeff Knapp, Program
Officer, jknapp@nrcan.gc.ca , tel 613-996-8632, fax 613-943-6517.

Invitation to Participate

Canadian energy utilities and their retail affiliates, other energy providers, residential-sector developers and builders, municipalities, provincial and territorial governments, Non-Governmental Organizations, community buyers' groups and others, who are interested in receiving federal financial assistance for the implementation of residential solar water heating projects, are hereby invited to submit Expressions of Interest to NRCan.

Projects must aim to install solar water heating systems on at least 200 homes. Systems may be sold, or the solar assets may be retained and the systems leased or the solar energy sold to consumers. Other innovative deployment strategies will also be considered.

Table of Contents

Context	3
Objectives	3
Funding Available	4
Project Requirements	4
Submission Requirements	5
Evaluation Process	5
Specific Evaluation Criteria	6
Process Considerations	7
Maximum Number of Initiative Participants	
Payment of NRCan Contribution	
Anticipated Initiative Timelines	7
Disclaimer	8
For More Information	8

Context

In January 2007, Prime Minister Stephen Harper announced the ecoENERGY Renewable Initiative which includes \$36 million for renewable heat technologies. Under the ecoENERGY for Renewable Heat program, NRCan will offer \$9 million of funding over the period April 1, 2007 to March 31, 2011, for pilot projects to explore innovative approaches to the deployment of solar water heating systems in the residential sector on a large scale. This Call for Expressions of Interest is the first of these pilot program activities. Future Calls will depend on the results of this activity and the availability of funding.

Many countries have already deployed solar water heating systems widely in the residential sector through aggressive incentive and support programs. Germany, Austria, UK, Spain, the Netherlands, Japan, Australia, California and several other states in the US are examples of jurisdictions which have instituted policies to promote residential solar thermal energy deployment to great effect. While Canada can learn from their experiences, a made-in-Canada approach that considers our particular climate, industry structures and socio-economic system will provide valuable Canada-specific experience and learning.

Residential solar water heater installations in the existing-housing market now receive a \$500 rebate under the ecoENERGY Retrofit program, but market penetration by residential solar water heating systems, to date, remains limited. Historically, barriers such as high first cost and lack of consumer confidence have combined with Canada's relatively low cost of energy to limit penetration into this market. However, with the solar industry and its technologies now maturing, and fossil fuel prices and sensitivity to environmental issues on the rise, Canadians may be more willing to consider solar as a reliable and cost-effective auxiliary to conventional water heating systems. This convergence suggests that the timing may be right to market solar water heating and its environmental benefits to the Canadian residential marketplace.

Objectives

This Residential Pilot Initiative aims to test the effectiveness of various strategies to deploy solar domestic water heaters on a large scale under current Canadian residential market conditions. Effectively targeted deployment strategies may induce reductions in the cost of systems and accelerate solar market development.

This Call for Expressions of Interest aims to identify organizations that can bring resources and expertise to bear in the exploration of solar domestic water heating deployment strategies. NRCan seeks organizations with the capacity, interest, infrastructure, technical expertise, service capability and access to sufficient capital to implement a solar deployment of at least 200 systems. Large projects and innovative approaches to deployment are encouraged.

Funding Available

NRCan has allocated \$9 million for this Residential Pilot Initiative. Depending on the funding remaining after this Call, NRCan may issue subsequent Calls.

The maximum NRCan contribution amount available to any one eligible participant under this initiative is \$2 million over the period April 1, 2007 to March 31, 2011.

Applicants are encouraged to solicit additional funding for their projects from municipal, provincial, other federal government, and other sources.

NB: NRCan funding under this initiative may not combine with other government funding to exceed 50 per cent of total project costs.

NRCan reserves the right to determine the level of financial assistance provided under this initiative.

Project Requirements

- Project installations must begin within 12 months of the signing of a contribution agreement under this initiative and must be completed by October 31, 2010. Projects with shorter timelines can be supported;
- Applicants are responsible for ensuring the quality of, and warranting, system installations;
- Systems to be deployed must:
 - be active (ie. must incorporate a pump) solar water heating technologies;
 - be installed on single-family residences or small multi-unit residences without a common entrance and comprising:
 - less than 600m² of building area; or
 - 3 or fewer stories of building height;
 - comprise only new equipment and must use only collectors which meet CSA standard F378-87 or equivalent, and are included on the NRCan-Approved Collector List (available at www.nrcan.gc.ca/rh);
- Applicants may choose to sell or lease solar heating systems or sell the delivered solar heat to consumers while retaining ownership of the solar assets. Applicants may also propose other deployment strategies to suit their particular organization or marketplace;
- Applicants are required to develop deployment strategies that will simplify the equipment purchase, lease, rental, or energy purchase decision and minimize costs and risk to the homeowner; and
- Participants are required to keep proper records of their projects for a period of 5 years and must allow NRCan reasonable access in order to inspect solar energy installations and project records.

Submission Requirements

Submissions must:

- correspond to the format and content of the Evaluation Criteria below;
- be no more than 20 pages in length, including attachments;
- include the names and contact information for two people within the applicant organization to act respectively as the primary and secondary contacts for NRCan for the purposes of this initiative; and
- be submitted electronically in English or French to jknapp@nrcan.gc.ca by midnight Local Ottawa Time Friday September 28th, 2007.

Evaluation Process

Expressions of Interest will be evaluated by a committee established by NRCan. The committee shall evaluate each Call response in accordance with the Evaluation Criteria below. Applicants may also be asked to make a presentation of their submissions to the evaluation committee.

The selection of applicants to participate in this initiative shall be at the sole discretion of NRCan. NRCan reserves the right to accept or reject any or all responses to this Call.

NRCan shall conduct this Call process in a visibly fair manner and will treat all applicants equitably. To this end, it has established objective evaluation criteria that will be applied uniformly to all applicants.

Following the selection process, confidential negotiations will be undertaken with successful applicants to establish mutually agreeable conditions for entering into contribution agreements.

In accepting a contribution from NRCan, applicants will be expected to publicly acknowledge this assistance in a manner acceptable to NRCan. Public acknowledgement of the assistance received shows Canadians where and how public funds are being spent, and raises public awareness of the social, economic and environmental benefits of initiatives such as this Solar Thermal Residential Pilot Initiative.

Specific Evaluation Criteria

All responses to this Call will be evaluated according to the degree to which they address the Evaluation Criteria as indicated below:

EVALUATION CRITERIA*	Weighting
MANDATORY CRITERIA	
Applicant Organization <ul style="list-style-type: none"> • is a legally registered Canadian business entity • demonstrates sufficient capacity, expertise and access to capital to implement project 	yes/no
Other Government Funding <ul style="list-style-type: none"> • all other municipal, provincial and federal government project funding is identified 	yes/no
Technology to be Deployed <ul style="list-style-type: none"> • collectors are on NRCan-Approved List (meet required CSA standard) available at www.nrcan.gc.ca/rh • is to be procured from manufacturers or suppliers with demonstrated ability to meet the anticipated demand in a timely fashion 	yes/no
WEIGHTED CRITERIA	
Deployment Strategy <ul style="list-style-type: none"> • demonstrates a realistic plan to market and install at least 200 residential active solar water heating systems by October 31, 2010 • minimizes real and perceived risk to the consumer • maximizes visibility of project to promote solar uptake by others • describes in sufficient detail: <ul style="list-style-type: none"> ○ the deployment mechanism, ie. sale or lease of system, sale of solar energy, or other innovative strategy ○ rationale for choice of deployment mechanism, ie. advantages to consumer and participant organization ○ number of installations anticipated (must be > 200) and some indication of the applicant's ability to implement chosen strategy on scale anticipated ○ installation strategy, quality control measures and timelines ○ all project costs ○ consumer contracting and billing arrangements ○ maintenance and repair arrangement ○ warranty offered ○ characteristics of strategy which render it replicable 	30
Marketing Plan <ul style="list-style-type: none"> • demonstrates intention to provide consumer with sufficient high quality information about solar and about their options (eg. purchase or rental of systems or purchase of solar energy) to allow an informed choice to be made • provides project information on the web • demonstrates intention to credit the Government of Canada for its contribution to the project 	20

Project Financial Information	
<ul style="list-style-type: none"> cost of project to NRCAN is indicated per installed system. Lowest cost per system to NRCAN receives most favourable evaluation score 	25
<ul style="list-style-type: none"> cost to consumer is indicated. Lowest consumer cost receives most favourable evaluation score 	15
Monitoring Plan	
<ul style="list-style-type: none"> describes monitoring method clearly including technology to be used to monitor systems will monitor a sufficient number of installed systems and indicates percentage or number of installed systems to be monitored is designed to determine at least: reliability, output, efficiency, customer satisfaction level and cost-effectiveness of installed systems 	10
TOTAL	100

* Notwithstanding the marks achieved by any submissions, selection may be influenced by the considerations of sufficient geographical representation and that a sufficient variety of deployment approaches is tested.

Process Considerations

Maximum Number of Initiative Participants

NRCAN has not determined the number of participants under this program. The number will be determined by availability of funding and by the size of the projects supported. It is anticipated that the number will be sufficient to test a variety of approaches to the deployment of solar water heating systems in the residential sector over a significant geographical distribution.

Payment of NRCAN Contribution

Payment of NRCAN's contribution amount to the participant will occur at agreed-upon milestones. Participants will be reimbursed for completed project installations based on an amount per solar heating system installed.

Anticipated Initiative Timelines

1. Release of Call for Expressions of Interest July 6, 2007;
2. Applicants review this Call for Expressions of Interest and design their deployment strategy July 6, 2007 – September 28, 2007;
3. Applicants submit their Expressions of Interest electronically to the ecoENERGY for Renewable Heat program (jknapp@nrcan.gc.ca) by midnight Local Ottawa Time Friday September 28, 2007;
4. NRCAN sends responses to all applicants acknowledging receipt of Expressions of Interest;
5. NRCAN evaluation committee evaluates submissions;

6. Applicants are contacted by NRCan to inform them as to whether or not their application was successful;
7. NRCan and applicants negotiate project parameters and sign RPI contribution agreements for NRCan project support with successful applicants;
8. Participants complete their projects by October 31, 2010;
9. Participants submit their final claims for payment by November 15, 2010.

Disclaimer

The offering by NRCan of this Call for Expressions of Interest in no way confers any obligation upon NRCan to enter into a contribution agreement with or to fund any respondent to this invitation.

NRCan shall not be obligated in any manner to any applicant whatsoever, until a written contribution agreement has been duly executed relating to a qualified, approved project.

For More Information

Other Useful Resources for the Preparation of Submissions

Participants may want to peruse a sample generic solar utility business case entitled “Business Opportunity Prospectus for Utilities in Solar Water Heating” and “Utility Success Stories in Solar Water Heating” available from the [USH2O Consortium](#) in the U.S..

Other websites containing solar heating information to complement the RPI initiative include:

Canadian Renewable Energy Network website: <http://www.canren.gc.ca>

Canadian Solar Industries Association website: <http://www.cansia.ca>

The NRCan website: <http://nrcan.gc.ca/rh> contains appendices which offer applicants more detail on solar water heating systems, including:

Appendix A - A Solar Heating Primer;

Who Can Use Solar Heat?

How Does It Work?

Is Solar Thermal Technology Effective, Reliable?

Where can I find more information?

Appendix B - NRCan Solar Hot Water Systems Brochure;

Appendix C - NRCan’s Solar Water Heating Buyer’s Guide and Quick Solar Heating Calculator;

Appendix D – List of NRCan-Accepted Solar Heating Products

(<http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/heat-chauffage/collectors-capteurs-eng.cfm>)

In addition, NRCan staff is available to assist with questions and guide applicants through the RPI funding process. For more detailed information please contact:

Jeff Knapp
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ecoENERGY for Renewable Heat Program
Natural Resources Canada
613-996-8632
jknapp@nrcan.gc.ca

NB: Responses to non-proprietary questions, which in the opinion of NRCan may affect or be of interest to a number of applicants, will be posted on the ecoENERGY for Renewable Heat website at www.nrcan.gc.ca/rh.