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Join the Solar Revolution

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To: All School Districts of British Columbia

**Re: Invitation to apply for an incentive for the installation of solar hot water systems**

### **Introduction**

School districts are invited to nominate schools for incentives under the Solar for Schools project of the SolarBC Program. The SolarBC Program ([www.solarbc.ca](http://www.solarbc.ca)) provides incentives for the installation of solar hot water systems. A background document about SolarBC is included at the end of this document. SolarBC has received funding for this project from the Province of British Columbia.

The Solar for Schools project will help schools in their quest to become carbon neutral with respect to their operations by 2010. The installation of solar hot water systems on schools demonstrates the leadership of the school in reducing GHG emissions and by encouraging students and their families to investigate renewable energy solutions in their homes. Solar hot water is an innovative infrastructure technology that reduces the carbon footprint of the school along with energy costs. While showing an on-the-ground climate action initiative, the installation provides a teaching opportunity about the possibilities for renewable energy usage and employment opportunities in the renewable energy sector, one of the fastest growing sectors in the world.

Approximately 20 schools will be selected under this initiative.

**A program of:**



[www.bcsea.org](http://www.bcsea.org)

**Sponsored by:**



[www.gov.bc.ca](http://www.gov.bc.ca)

## **Funding Availability**

There are two funding incentive streams available for solar hot water installations at BC schools:

ecoENERGY for Renewable Heat Program – Subsidies towards the installed cost are available from Natural Resources Canada (NRCan) upon installation and commissioning.

SolarBC - Subsidies of 90% (to a maximum of \$20,000) of the installed cost less the ecoENERGY subsidy are available upon installation and commissioning of the solar hot water system.

Installations may take place on new, replacement or existing buildings. Existing buildings will be evaluated against operational requirements (e.g. declining enrolments, schools facing closure). **Please note that installation of the solar project may not begin until a Contribution Agreement has been signed by Natural Resources Canada (NRCan) and the applicant.**

## **Project Submission**

Project proposals (form attached) will be submitted to SolarBC.

## **Approved Projects**

Once approved for implementation by the SolarBC review team, successful project proponents must apply (with their solar contractor) to the federal government's ecoENERGY for Renewable Heat Program before they can proceed. More information is available at:

<http://www.ecoaction.gc.ca/ECOENERGY-ECOENERGIE/heat-chauffage/index-eng.cfm>

## **Implementation**

The ecoENERGY program will provide technical expertise, advice, registration and commissioning assistance plus verification upon completion to enable project rebate requests. Project rebate requests will be assessed by ecoEnergy program staff and rebate funding from the ecoEnergy program will be authorized by that agency. NRCan will send SolarBC a copy of the signed Contribution Agreement with the applicant. SolarBC will issue a letter of program acceptance to the applicant which will then allocate funding to the project.

## **Rebate Process**

Once the project is completed and commissioned, the applicant must submit a payment request using the [Payment Request](#) form provided by NRCan. The applicant must submit this payment request along with the [Commissioning Report](#) (a template is provided by NRCan) and the manufacturer's warranty attesting to the authenticity of the collector. The applicant must submit these documents within 30 days of the commissioning date.

SolarBC will provide its contribution to the applicant upon receipt of notice from NRCan that it has provided its share of the project rebate

## **Training, Monitoring, Reporting, Public Relations**

Schools are required to monitor energy output from the solar hot water system, develop science and math activities using the energy data, set up displays that provide information on energy savings and greenhouse gas reductions, and demonstrate their solar hot water systems to students' families and the wider community.

## **Sample Project Budget and Rebate Structure**

### Cost of project

Approximate total budget to design, install, and commission:	\$22,000
ecoENERGY rebate (approximate):	<u>\$ 2,000</u>
Balance after ecoENERGY rebate	\$20,000
SolarBC rebate for installation (90% of above balance to \$20,000)	<u>\$18,000</u>
School District contribution (approximate):	\$ 2,000

School districts wishing to undertake solar hot water heating projects of greater scope than the minimum indicated may provide additional resources to complete projects, however, maximum contribution levels from SolarBC and ecoEnergy may not be exceeded.

## **Submittal Criteria**

- Project must be completed by December 31, 2010.
- Once approved, Boards apply (through their solar contractor) to the ecoENERGY for Renewable Heat Program prior to proceeding.
- The ecoENERGY application must be submitted by October 1, 2010.
- Boards must complement the installation with classroom instruction. Sample lesson plans and activities with curriculum fit will be developed and available for all teachers to use. The nominated school must commit to using the SolarBC lesson plans which will be linked to Science curriculum at Grades 6, 10, and 11.
- The school must also commit to leading a teacher's workshop on solar energy when available.
- Performance monitoring and reporting will be required and schools must be prepared to provide this information to SolarBC on a quarterly basis.
- A display must be installed in the proponent school indicating results and benefits from the solar hot water installation.
- Boards must engage in public reporting of approved SolarBC projects in partnership with SolarBC, ecoENERGY and the Province of British Columbia.
- A letter from a teacher or principal at the recommended school indicating the interest of the teacher/principal and the students in solar hot water and how the data from the system will be used in the school.

### **Building and Solar System Criteria:**

- Installation must be undertaken on a board-owned school, no portables will be considered
- Room on roof for the solar panels
- Sloped roofs must be southeast, south or southwest facing
- Installations must not be subject to shading between 10am to 4pm at any time of the year
- Room for a solar tank in the mechanical room
- High usage of hot water (showers, cafeteria) will be considered
- Use of school in the summer will be considered

### **Specifications**

Detailed specifications for approved projects have been developed by SolarBC and will be provided to proponent districts.

### **Application and Rebate Process**

1. Review facilities for combined solar installation and education program opportunities;
2. Submit application/s to SolarBC;
3. When your project is approved by SolarBC, hire a solar contractor (from SolarBC list of registered contractors) to design and price the system;
4. Work with solar contractor to submit application to the ecoENERGY program;
5. Receive Contribution Agreement from NRCan;
6. Install solar hot water system;
7. Upon completion, submit project details to ecoEnergy program for ecoEnergy rebate;
8. After receiving confirmation of project completion from the ecoEnergy program, SolarBC will issue a rebate cheque.

**\*\*Applications to the ecoENERGY program will only be accepted until October 1, 2010. Schools are advised to apply for funding as soon as possible, because the ecoENERGY funding may be fully committed before the October 1 deadline. SolarBC funding will not be allocated to a school until the NRCan Contribution Agreement is received. Funding will be allocated on a first-come, first-served basis and may be exhausted well before October 1.\*\***

### **SolarBC Internal Review Criteria:**

- School must meet all building and solar requirements;
- Board must show that the teacher/principal of the named school is a strong supporter of solar energy initiatives;
- Boards must indicate a sincere interest in sustainability-based initiatives in their project proposal submissions;
- Schools must have a sustainability or "green" program educator/champion on staff;

- Projects must be dispersed across a range of geographic locations representing all major population zones in the province;
- School must commit to use the developed lesson plans and lead a teachers' workshop;
- School must be willing to report quarterly on the energy and GHG data; and
- District must commit to train operations person on the solar system maintenance.

## **SolarBC Program Backgrounder**

The SolarBC Program (SolarBC) will integrate six different solar projects listed below to provide a comprehensive market transformation program for solar hot water in British Columbia. This program will see all levels of government, non-profits and industry stakeholders come together to collaborate on a solar hot water strategy with critical and long-lasting results. This initiative will also leverage the federal ecoEnergy funds that have been secured by three separate projects in B.C. A few of the tangible outcomes of this initiative are: a measurable reduction in CO<sub>2</sub> and other key greenhouse gas emissions; displacement of traditional electricity and natural gas; generation of electricity; creation of jobs; economic growth in communities; and the creation of Solar Communities across B.C.

SolarBC will initiate the actions towards a target of 100,000 Solar Roof installations in British Columbia by 2020. This phase will see the following projects implemented between now and December 2010.

### **1. SolarBC Residential Project**

- Provision of financial incentives for the installation of solar hot water (SHW) systems on residences throughout B.C.
- Provision of a one-stop shop for solar hot water information and access to the program.

### **2. Solar Communities**

- Development of 15 Solar Communities.
- Provision of training and awareness programs in the Solar Communities.
- Design of building policy & development guidelines to facilitate solar hot water installations.

### **3. SolarBC Local Government Buildings Project**

- Provision of financial incentives for solar hot water projects funded by NRCan ecoEnergy funds for municipal buildings.
- Provision of expertise and information to local governments on SHW installations.

### **4. SolarBC First Nations Solar Hot Water Project**

- Provision of financial incentives for solar hot water projects funded by the NRCan ecoEnergy funds for First Nations communities and housing.

### **5. SolarBC Social Housing Project**

- Provision of financial incentives to leverage NRCan ecoEnergy funds to support the installation of SHW systems on affordable housing.

### **6. SolarBC Solar Schools Project**

- Provision of financial incentives for the installation of SHW systems in schools and funding for the installation of photovoltaic systems.

SolarBC is administered by the B.C. Sustainable Energy Association (BCSEA), a non-profit society of citizens, professionals and practitioners committed to promoting the understanding, development and adoption of sustainable energy, energy efficiency and conservation in British Columbia.

For more information please contact:

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