

# REQUEST FOR PROPOSALS

*FOR:*

## RIVERDALE INITIATIVE *for* SOLAR ENERGY (RISE, Again)

An initiative for the

### Selection of Vendors to Supply Solar Domestic Hot Water Systems

To Single Family Residential Property Owners

It is recommended that the suppliers who intend to respond to this RFP, register their intent by emailing [scott@ourpower.ca](mailto:scott@ourpower.ca). This will ensure that any updates, questions or further communication regarding this RFP are communicated to you.

DATE OF ISSUE: 9 February 2009

CLOSING DATE: 2 March 2009

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## Background

**RISE Again** is a local non-profit, community-based group helping residents and businesses in the Riverdale neighbourhood of Toronto and the surrounding region make more responsible choices in their use and supply of energy. **RISE Again** is staffed entirely by volunteers including professionals in the renewable energy field dedicated to reducing greenhouse gas (GHG) emissions by encouraging energy conservation and pursuing renewable energy projects in the Toronto region.

As one of its priorities for **2009**, **RISE Again** has launched A Residential Solar Project, the goal of which is to encourage residents of the Riverdale neighbourhood of Toronto and the surrounding region to consider a solar domestic hot water (SDHW) heater or solar PV system for their home. The project will help to identify and overcome barriers to the adoption of SDHW and Solar PV systems through education and support to homeowners including product information, advice on buying and installing SDHW and Solar PV Systems and access to qualified professionals who can conduct a site analysis. We also will be registering homeowners who wish to install either one or both of the systems during the project. At present we predict approximately 50 homeowners will wish to install one or both types of systems.

A key element to our solar project is to coordinate bulk purchasing arrangements with SDHW System Supplier(s) in order to secure the most cost-competitive and cost-efficient price quotations. The objective is to provide homeowners with an inexpensive option and a maximum efficiency option. This information will be shared with homeowners who wish to install the unit(s).

## Purpose and Scope of RFP

The purpose and scope of this RFP is to provide **RISE Again** and the homeowners with information on suppliers of **SDHW systems who can provide a “turnkey” residential solar domestic hot water system**. A separate RFP has been issued for Solar PV systems. You may respond to either or both RFP documents if you like. For the purposes of the RFP, the term “turnkey” will include the following:

- a) Site Assessment
  - o An ecoENERGY and a Solar audit will be conducted by a separate firm. If your firm requires their own site inspection, please outline the costs as part of your proposal.
  - o RISE Again can assist in distributing a preliminary self-assessment guide to homeowners to help them evaluate their eligibility and suitability for getting a solar system.
- b) System Design
- c) System Purchase
- d) System Installation
- e) System Commissioning
- f) Warranties, After Sales Service and Maintenance Agreements
- g) Meet requirements of and liaison with Toronto Solar Neighbourhoods program
- h) Cooperation with other “System Supplier(s)” who may be installing alternative (ie. PV) solar systems for the homeowner.
- i) Obtain City of Toronto Building permit
- j) Financing (optional)
- k) Future Upgrades (optional)

It is understood that the supplier may outsource some of the work to provide the complete turnkey package. However, the supplier will be expected to coordinate the effort of all sub-contractors and the supplier will act as the single point of contact for the homeowner.

In order to allow **RISE Again** and the homeowners to compare submissions on an equal basis, each supplier will submit a quote based on a reference house, the characteristics of which are provided in Appendix A.

The group recognizes that each installation is unique and actual quotes for each installation may be different, however the expectation of the group is that the “System Supplier(s)” will be able to provide a very price competitive quote for the respective system type based on the fact that the “System Supplier(s)” will have access to a large number of consumers interested in purchasing solar systems.

Companies responding to this RFP will be considered the “System Supplier(s)” and a principal point of contact for the group involved in the project.

Designation as a “System Supplier(s)” does not reflect an endorsement of that company’s product or service by **RISE Again** or the homeowners, but merely reflects the fact that said company responded to the RFP.

## **System Submission Requirements**

### ***Site Assessment***

The “System Supplier(s)” must demonstrate the ability to conduct or provide a site assessment within the Riverdale and surrounding neighbourhood of Toronto to determine the appropriateness of solar systems for each site. You may assume that the homeowner will have completed an ecoENERGY and Solar Assessment. Using the reference house as a base, each quote must clearly identify costs associated to travel to the site, final site assessments and a report estimating the potential savings. Information supplied to RISE Again must include collector efficiency and losses as provided by a recognized testing agency.

### ***System Design***

Using the reference house as a base, the “System Supplier(s)” must recommend a system that will provide optimal performance for the Riverdale neighbourhood of the Toronto market. Each submission must clearly describe specifications and cost of the recommended system including:

- solar collector(s)
- pumps
- controller
- plumbing
- mixing valve
- expansion tanks
- storage tank (if necessary)
- heat exchangers
- controls including stagnation/over-heating strategies and freeze protection strategies – roof and/or ground anchors
- all installation materials
- all other equipment and materials recommended by the “System Supplier(s)”
- equipment features, options or considerations regarding hard water (or other water quality issues)

To provide the group with an appreciation of the implications on system design and cost for different family configurations, system design options should be provided for a low DHW load situation (family of 2 – working couple) and a high DHW load configuration (family of 4 with young children at home). The “System Supplier(s)” is invited to provide any information that will help the group make an informed choice on the relationship between family size/DHW load and system costs. The “System Supplier(s)” will provide complete specifications for individual components and for the complete system. Performance data for the

system to be provided to RISE Again (i.e. Bodycote tests or equivalent). The “System Supplier(s)” may recommend more than one system design or offer system designs with different components (i.e. different collectors).

Test data from actual field installations is highly desirable, particularly for the Toronto area or similar climactic regions.

A RETScreen analysis will be provided using the system specifications and the Reference House description. A RETScreen analysis should be provided for each system design option. The RETScreen analysis should provide the solar fraction and the solar energy delivered (kWh/ year) and a printout of the RETScreen sheets: “Energy Model” and “Solar Resource and Heating Load Calculation”. The financial, cost and greenhouse gas calculations with RETScreen are not required but if they are available, it will add beneficial information.

### ***Regulatory Approvals and Permits***

RISE Again will only consider solar hot water systems that conform to the requirements of the Toronto Solar Neighbourhoods Initiative <http://www.solarneighbourhoods.ca/>.

### ***System Installation***

Using the reference house as a base, the “System Supplier(s)” will provide a clear description of tasks, time and costs to install the recommended system and clearly delineating optional features. The “System Supplier(s)” should describe any additional costs or constraints that may need to be anticipated that are not reflected in the reference house example. The “System Supplier(s)” will also be responsible for securing all permits for the system and inspections as required.

The “System Supplier(s)” will provide an estimate to install the system including final site assessment, system design, ordering time for the system, approvals and installation.

### ***System Commissioning***

Using the reference house as a base, the “System Supplier(s)” will describe how each system will be commissioned.

### ***Warranties, After Sales Service and Maintenance Agreements***

The “System Supplier(s)” will provide a complete description of applicable labour and parts warranties for both the system and individual components.

The “System Supplier(s)” will also provide a description of how after sales service issues will be handled both during and after the warranty periods including labour costs, availability and accessibility of spare parts and recommissioning of the system, as required.

The “System Supplier(s)” will also provide a description of optional system maintenance agreements and capability of offering extended warranty packages.

### ***Financing (optional)***

The “System Supplier(s)” may wish to offer solutions to access alternative or innovative financing arrangements including:

- Preferred interest rates from a local financial institution
- Access to leasing arrangements for the system
- Access to rental arrangements for the system
- Other innovative financing options

### ***Future Upgrades (optional)***

The group recognizes that solar technology is evolving rapidly and new and more efficient components and systems will inevitably arrive on the market over the next 5 years. In addition, the homeowners' situation may change (e.g. increased hot water loads, addition of a pool, desire to incorporate space heating, etc) creating the need or opportunity to increase or upgrade the system. Some members of the group may want such upgrades immediately.

To this end, the "System Supplier(s)" may also wish to offer innovative solutions in concert with innovative financing options to enable homeowners to upgrade or modify their systems in the future.

Key features of interest to the group include:

- Future expansion of system capacity
- Integration of SDHW system with Space Heating
- Pool Heating
- Jacuzzi/Hot Tub heating
- Photovoltaic powered pumps
- Capability to work in a power outage (assume a capacity of 12 hours)

The "System Supplier(s)" is encouraged to include in their submissions descriptions of how their system can meet these additional features.

### ***Monitoring System Beyond that required by TSNI (optional)***

The group has indicated that it may want to monitor a number of installations to increase the confidence in the appropriateness of SHDW for the Toronto market.

To this end the "System Supplier(s)" is invited to offer solutions and cost estimates to provide and install monitoring equipment above and beyond that which is required by TSNI for their system that records solar energy collected and hot water used (i.e. Btu or kWh meters, flow meters, etc). Monitoring equipment that can transmit the readings over the Internet are preferred.

## **Timetable**

EVENT	TARGET DATES
RELEASE OF RFP	9 February 2009
END OF QUESTION PERIOD	27 February 2009
RFP CLOSING DATE	2 March 2009
ANNOUNCEMENT OF SUCCESSFUL BIDDER(S)	March 2009
PUBLIC INFORMATION MEETINGS	March / April 2009
SIGNING CONTRACTS WITH HOMEOWNERS	Spring / Summer 2009
INSTALLATIONS	Spring / Summer 2009

## Questions Regarding the RFP

All questions regarding this RFP must be submitted by E-mail.

**Phone calls or direct communications with any member of RISE Again will not be accepted.**

Questions can be submitted to [scott@ourpower.ca](mailto:scott@ourpower.ca)

All questions and answers will be promptly distributed to all companies who express an interest in the RFP.

## Supplier Submission Requirements

**The group insists on a turnkey installation where the “System Supplier(s)” takes full responsibility for the design, installation and after sales service of the system.** The “System Supplier(s)” may sub-contract elements of the system but will still remain the single point of contact before, during and after installation of the system. The exception to this requirement could be issues related to financing of the system.

Each submission must include the completed forms found at the end of this RFP.

The “System Supplier(s)” should include information on all sub-contractors for optional features or elements of the system (i.e. space heating sub-contractors, pool heating sub-contractors), where applicable **RISE Again** and the Homeowners reserve the right to verify the financial integrity of the “System Supplier(s)” or its sub-contractors. The “System Supplier(s)” is encouraged to provide relevant information to allow the group to verify the integrity of the supplier and principal subcontractors (i.e. St. Patrick Street#, Better Business Bureau Reports).

## Evaluation of System Suppliers and the Role of RISE Again

A steering committee of the group will review and evaluate each submission against the requirements of this document.

All submissions from all “System Supplier(s)” will be evaluated on the same criteria. The weighting given to each criteria will be consistent across all submissions. Weighting will be determined by the steering committee and will not be disclosed. The criteria used to evaluate each submission are listed as follows in no particular order:

- Price
- Customer Service
- Warranty
- Technology - Efficiency
- Local Company / Manufacturer
- Ability to deliver a turn-key Solution
- Additional criteria may be added at the discretion of the RISE Again steering committee

After all submissions have been reviewed, **RISE Again** will host a meeting (or several meetings) of the homeowners where the steering committee will present its findings. Each submission and the degree to which they complied with the submission requirements will be disclosed.

**RISE Again** and the steering committee WILL recommend preferred “System Supplier(s)”. Each consumer will negotiate their own contract or estimate with one or more “System Supplier” who responded to the RFP. It is anticipated that the degree to which each RFP complies with the submission requirements will significantly influence which “System Supplier(s)” members of the group will prefer to contact regarding actual quotes.

**RISE Again** makes no guarantees that any member of the group will purchase a solar system from companies responding to this RFP.

**RISE Again** will however make the results of this RFP process available to all current and new members of the group and other interested homeowners. **RISE Again** will continue to recruit new homeowners interested in installing Solar Thermal and PV Systems. **RISE Again** can provide the name of an independent system design reviewer should any homeowner desire to implement a system design that is outside the parameters of this RFP.

Any contracts signed will be between the homeowner and the "System Supplier(s)". **RISE Again** will not be part of said contract.

## **Financial Submission Requirements**

All prices to be in Canadian Dollars, PST and GST to be separately itemized. The "System Supplier(s)" will provide a firm fixed price for this project based on the reference house and aforementioned specification conditions and constraints. All equipment and subcontractor costs (i.e. "turnkey") including but not limited to permits, liability insurance, appropriate provincial workers compensation and all other regulatory issues are to be included in the quotation.

The "System Supplier(s)" will provide quotes for a single system. At the time of issuing this RFP, RISE Again has been successful in collecting a list of 600 homeowners who have indicated some interest in a solar energy system. "System Supplier(s)" are encouraged to consider volume incentives reflecting the commitment of purchases from multiple homeowners. These incentives may be monetary, but we are open to considering other creative incentives offered by the "System Supplier(s)".

It is the intent of the Consumer Group to present the results of this RFP no later than 31 March 2009 with the intent that systems would be installed between March 2009 and September 2009.

The "System Supplier(s)" MUST clearly indicate the capacity of the "System Supplier(s)" (i.e. # of units that can be installed per month) and any limitations (if any) regarding system installation (i.e. approximate date the last collector can be installed).

## ***Materials and Labour***

Provide a firm fixed price per household based on the requirements described above as they relate to the reference house in Appendix A. Include all equipment supply and subcontractor costs (i.e. "turnkey"). Detail costs for Site Assessment, Warranties, Maintenance Contracts and Energy Monitoring. Where the "System Supplier(s)" wishes to provide quotes using alternative products please itemize a separate Pricing matrix for each system configuration or type.

Installers must state and adhere to a fair wage policy.

## Submission Form: Summary of Supplier Credentials

*Please repeat this page if you are proposing multiple systems and if this information is different from system to system. If the following information applies in general to all offerings from your company please only complete this section once.*

**Completion of this form is mandatory. You are free to provide additional credentials and supporting materials as separate attachments.**

### System Supplier (including all sub-contractors)

Location of company	
# years in business	
# years in business of providing SDHW Systems	
Size of Company, defined as the number of trained installers	
Credentials of key individuals of company	
# and examples of location of SDHW systems installed (include examples of designs of optional system features)	
description of liability insurance	
service area	
List of References	
Website	

### Financing Options (if applicable)

Finance company	
Details of financing	
Credentials of the company	
Key contact	
Website	

**Please provide your own description of what is included as part of your “turnkey” offering:**

**Please include a customer service statement that outlines your commitment to providing homeowners with a positive experience:**

# Submission Form: Summary of System Specifications and Costs

*If you are proposing multiple systems, please repeat the following information for each system.*

*Completion of this form for each system is mandatory. You are free to provide additional specifications and information as separate attachments.*

## System and Major Component Details

Item	Manufacturer	Country of Origin	Type / Model Number	Output / Performance Specs	Warranty
Collectors					
Plumbing					
Storage (if applicable)					
Controls					
Mounting / Racking Hardware					
Other Features					
Other Features					
Other Features					

## Provide a separate identified price per household for the following items:

Final Solar Site Assessment	\$
Installed Solar System Cost	\$
Plumbing or electrical Costs per m of run	\$
Optional Annual Maintenance Contract (in warranty)	\$
Optional Annual Maintenance Contract (out of warranty)	\$
Extended Warranty per year	\$
Optional Energy Monitor (installed and commissioned)	\$
Other Features	\$
Other Features	\$
Other Features	\$

**Additional notes, conditions or features:**

# Submission Confirmation

## Deadline for Submission

One electronic copy must be provided no later than 2 March 2009 to: [scott@ourpower.ca](mailto:scott@ourpower.ca)

**Submissions will be redistributed to the evaluation committee electronically.**

Please ensure that your submission can be easily redistributed in an electronic form.

If necessary, any additional material may be delivered to:

### **RISE Again**

C/O 138 Hamilton Street

Toronto, Ontario

M4M 2E1

By submitting a response to this RFP you agree that the details of your submission may be made available to the homeowners interested in participating in a system purchase with RISE Again.

All of the above prices are valid until \_\_\_\_\_, 200\_\_

Authorization

Company Name: \_\_\_\_\_

Authorized By: \_\_\_\_\_

(Print) \_\_\_\_\_

(Signature) \_\_\_\_\_

Date: \_\_\_\_\_

# Appendix A: Reference House Description for System Design Options and Retscreen Estimates

## ***Location***

- The Riverdale neighbourhood of Toronto

## ***Roof Specifications***

- Assume System is Flush Mount to Roof
- Assume Roof Slope is 6 in 12 (27 degrees)
- Assume orientation of Roof is Due South with No Shading
- Assume adequate Roof Area to install collector

## ***Flatroof Specifications***

- Assume No Shading
- Assume adequate Roof Area to install panel(s)

## ***House Specifications***

- Assume 2 Story House with full basement
- Assume 10 m vertical height and 4 m horizontal length for glycol lines from collector to storage tank
- Assume gas-fired hot water tank with 55% efficiency

## ***Occupant Specifications***

- Assume two family configurations
  - Family of 2
    - Working Couple; 155 litres/day at 55C
  - Family of 4
    - 2 adults, 2 young children (home all day); 225 litres/day at 55C

## ***Non-roof Mounted Systems***

- Except for tracking collectors, assume the collector slope is 27 degrees from horizontal (for comparison with flush roof-mount)
- Except for tracking collectors, assume orientation of collectors is Due South
- Assume no solar shading