



# Solar Domestic Hot Water

## NRCan's ecoENERGY Retrofit – Homes Program

**Webinar for ecoENERGY Service Organizations & Certified Energy Advisors**

**Hosted by: SolarBC**

**Friday March 26, 2010**





# Objectives

- Introduction
- Overview
  - Solar Domestic Hot Water (SDHW) Systems: Eligibility Criteria and Web Site References
  - SDHW Post-Retrofit Evaluation Procedures (installers and energy advisors)
  - Grant Amount and Capacity of SDHW Systems (3 approaches)
  - Modelling SDHW in HOT2000




# Introduction

- NRCan's mandate for increasing energy efficiency by:
  - Supporting the development of industry standards and certification processes.
  - Promoting the inclusion of energy efficient technologies in homes.
  - Stimulating the economy/ creating jobs.
- Working together to:
  - Encourage the use of SDHW.
  - Inform all parties.




# Solar Domestic Hot Water Systems: Eligibility Criteria and Web Site References





# SDHW Systems Eligibility Criteria

- Eligibility Criteria
  - Pre-retrofit evaluations conducted before April 1, 2010
    - single family homes and
    - low rise Multi-Unit Residential Buildings (MURBs).
  - Pre-retrofit evaluations to be conducted on or after April 1, 2010
    - single family homes.
  - Pre-retrofit evaluations to be conducted on or after April 1, 2010
    - MURBs.



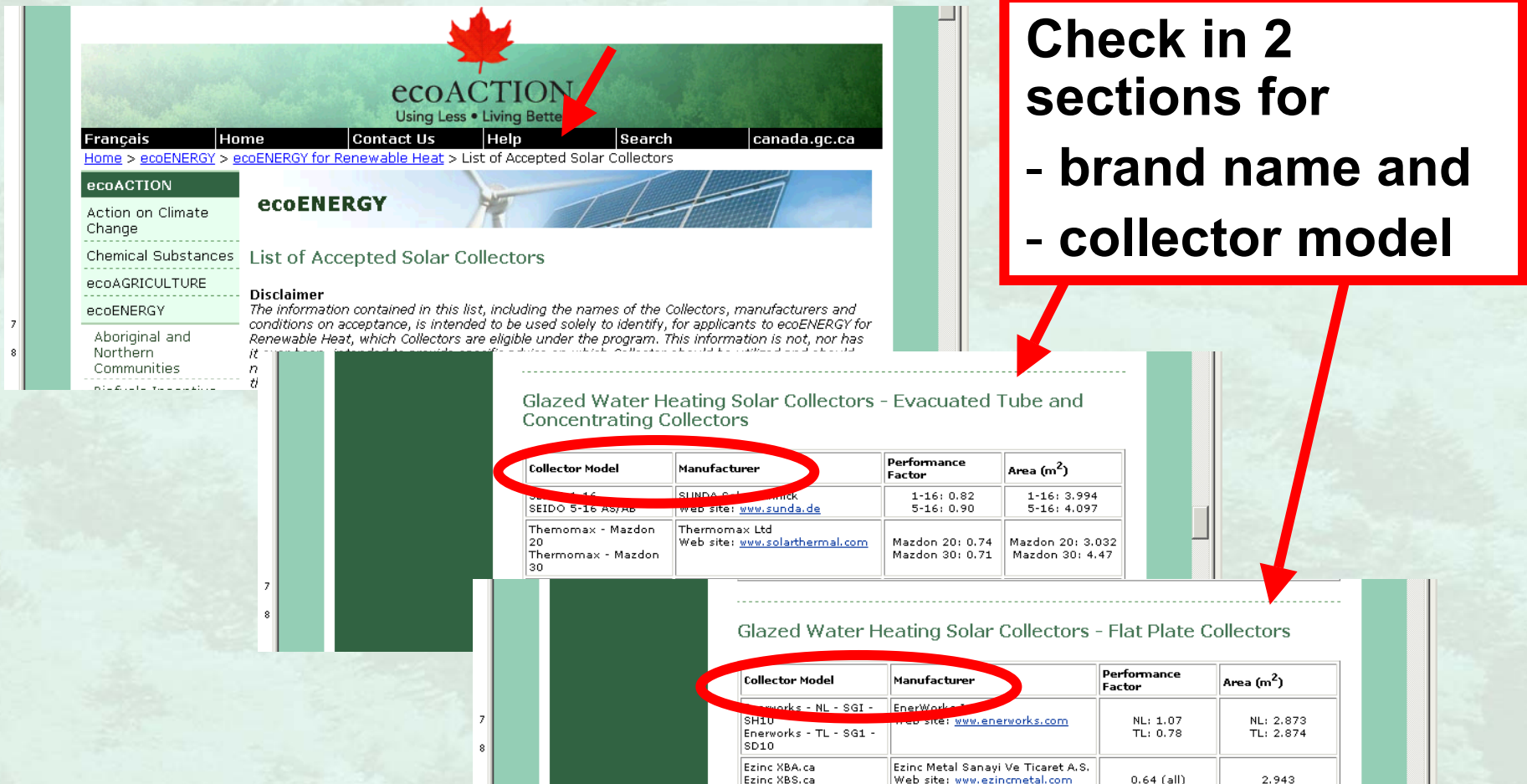
# Evaluations Conducted Before April 1, 2010

## Eligibility Criteria for single family homes and MURBs

- Collectors must meet the Canadian Standards Association (CAN/CSA) F378 standard or equivalent.
  - Acceptable solar **collectors** listed on the ecoENERGY for Renewable Heat Web site, or
  - Performance Directory of Solar Domestic Hot Water **Systems** on CanmetENERGY's Web site (Table 1 or 2). Preferred option.
- 6 gigajoules per year (GJ/yr) energy contribution will not be verified.
- Must heat domestic hot water.

# Evaluations Conducted Before April 1, 2010

## Renewable Heat Web site



ecoACTION  
Using Less • Living Better

Français Home Contact Us Help Search canada.gc.ca

Home > ecoENERGY > ecoENERGY for Renewable Heat > List of Accepted Solar Collectors

ecoACTION  
Action on Climate Change  
Chemical Substances  
ecoAGRICULTURE  
ecoENERGY  
Aboriginal and Northern Communities

**ecoENERGY**

List of Accepted Solar Collectors

**Disclaimer**  
The information contained in this list, including the names of the Collectors, manufacturers and conditions on acceptance, is intended to be used solely to identify, for applicants to ecoENERGY for Renewable Heat, which Collectors are eligible under the program. This information is not, nor has it been, intended to be used for any other purpose.

**Glazed Water Heating Solar Collectors - Evacuated Tube and Concentrating Collectors**

Collector Model	Manufacturer	Performance Factor	Area (m <sup>2</sup> )
SEIDO 1-16	SEIDO GmbH Web site: <a href="http://www.seido.de">www.seido.de</a>	1-16: 0.82	1-16: 3.994
SEIDO 5-16 AS/AB		5-16: 0.90	5-16: 4.097
Themomax - Mazdon 20	Themomax Ltd Web site: <a href="http://www.solarthermal.com">www.solarthermal.com</a>	Mazdon 20: 0.74	Mazdon 20: 3.032
Themomax - Mazdon 30		Mazdon 30: 0.71	Mazdon 30: 4.47

**Glazed Water Heating Solar Collectors - Flat Plate Collectors**

Collector Model	Manufacturer	Performance Factor	Area (m <sup>2</sup> )
Enerworks - NL - SGI - SH10	EnerWorks Ltd Web site: <a href="http://www.enerworks.com">www.enerworks.com</a>	NL: 1.07	NL: 2.873
Enerworks - TL - SGI - SD10		TL: 0.78	TL: 2.874
Ezinc XBA.ca Ezinc XBS.ca	Ezinc Metal Sanayi Ve Ticaret A.S. Web site: <a href="http://www.ezincmetal.com">www.ezincmetal.com</a>	0.64 (all)	2.943

Check in 2 sections for  
- brand name and  
- collector model


# Systems pre-retrofit evaluation performed before April 1, 2010

## CanmetENERGY's Web site

Table 1 Certified Solar Domestic Hot Water Systems (modified 2009-11-03)

Make	Model	Annual Performance Rating	Collectors Number & Size	Collector Type	Tank Volume	System Type	Retrofit Eligible <sup>2</sup>	Energy Star Eligible
<a href="#">Atis Group</a>	Solensis ST-0100*	5.27 GJ/y <sup>1</sup>	1 x 2.874 m <sup>2</sup>	Flat Plate Solensis-TL-ST-01	272 L	Solar Preheat	No	No
	Solensis ST-0200*	8.69 GJ/y	2 x 2.874 m <sup>2</sup>	Flat Plate Solensis-TL-ST-01	272 L	Solar Preheat	Yes	Yes
<a href="#">Copperhill Alternate Energy Inc.</a>	CETT-32-08-CP-06	3.39 GJ/y <sup>1</sup>	1 x 3.43 m <sup>2</sup>	ETC CETT-32-08				
	CETT-32-08-CP-06	6.35 GJ/y	2 x 3.43 m <sup>2</sup>	ETC CETT-32-08				
<a href="#">Enerworks Inc.</a>	EWRA 1*	5.27 GJ/y <sup>1</sup>	1 x 2.874 m <sup>2</sup>	Flat Plate COL-4x8-TL-SG1-SD10				
	EWRA 2*	8.69 GJ/y	2 x 2.874 m <sup>2</sup>	Flat Plate COL-4x8-TL-SG1-SD10	272 L	Solar Preheat	Yes	Yes
<a href="#">Globe Solar Energy Inc.</a>	IP-195**	3.34 GJ/y	1 x 2.55 m <sup>2</sup>	ICS ETC 24-tube	155 L	Solar Preheat	No	No
<a href="#">Thermodynamics Ltd.</a>	SB32-9PV*	6.11 GJ/y <sup>1</sup>	1 x 2.98 m <sup>2</sup>	Flat Plate S-32	270 L	Solar Preheat	Yes	No
	SB64-9PV*	9.94 GJ/y	2 x 2.98 m <sup>2</sup>	Flat Plate S-32	270 L	Solar Preheat	Yes	Yes

**Check for**  
- brand name and  
- collector model



# Single Family Homes as of April 1, 2010

- SDHW system must:
  - Be certified or in the process of becoming certified to the CAN/CSA F379 standard.
  - Minimum annual performance rating of 6 GJ/yr.
  - Appear in CanmetENERGY's Performance Directory of Solar Domestic Hot Water Systems (Table 1 or 2).
    - This Web page also explains the requirements for adding systems to the directory.
  - Must heat domestic hot water year-round.


# Single Family Homes as of April 1, 2010

Table 1 Certified Solar Domestic Hot Water Systems (modified 2009-11-03)

Make	Model	Annual Performance Rating	Collectors Number & Size	Collector Type	Tank Volume	System Type	Retrofit Eligible <sup>2</sup>	Energy Star Eligible
<a href="#">Atis Group</a>	Solensis ST-0100*	5.27 GJ/y <sup>1</sup>	1 x 2.874 m <sup>2</sup>	Flat Plate Solensis-TL-ST-01	272 L	Solar Preheat	No	No
	Solensis ST-0200*	8.69 GJ/y	2 x 2.874 m <sup>2</sup>	Flat Plate Solensis-TL-ST-01	272 L	Solar Preheat	Yes	Yes
<a href="#">Copperhill Alternate Energy Inc.</a>	CETT-32-08-CP-06	3.39 GJ/y	1 x 3.43 m <sup>2</sup>	ETC CETT-32-08	155 L	Solar Preheat	No	No
	CETT-32-08-CP-06	6.35 GJ/y	2 x 3.43 m <sup>2</sup>	ETC CETT-32-08	155 L	Solar Preheat	Yes	No
<a href="#">Enerworks Inc.</a>	EWRA 1*	5.27 GJ/y <sup>1</sup>	1 x 2.874 m <sup>2</sup>	Flat Plate COL-4x8-TL-	272 L	Solar Preheat	No	No
	EWRA 2*	8.69 GJ/y						Yes
<a href="#">Globe Solar Energy Inc.</a>	IP-195**	3.34 GJ/y						No
<a href="#">Thermodynamics Ltd.</a>	SB32-9PV*	6.11 GJ/y <sup>1</sup>						No
	SB64-9PV*	9.94 GJ/y						Yes

Check for the system's

- brand name,
- collector model and
- annual performance rating greater than 6GJ/y.



# MURBs Evaluations as of April 1, 2010

- SDHW system must have:
  - Minimum annual performance rating of **6 GJ/yr per system.**
  - Must provide a minimum energy contribution of **3 GJ/yr per residential unit.**
  - Solar collectors that meet the **CAN/CSA F378 standard** or equivalent.
  - Must heat domestic hot water year-round.
- 3 approaches to get the system's capacity/energy contribution.



# Website References

- Website with all SDHW details
  - <http://oee.nrcan.gc.ca/retrofit/homes/solar>
- CanmetENERGY Performance Directory of Solar Domestic Hot Water Systems
  - [http://canmetenergy-canmetenergie.nrcan-nrcan.gc.ca/eng/renewables/solar\\_thermal/sdhw\\_directory.html](http://canmetenergy-canmetenergie.nrcan-nrcan.gc.ca/eng/renewables/solar_thermal/sdhw_directory.html)
- ecoENERGY for Renewable Heat List of Accepted Solar Collectors
  - collectors from the 'Glazed Water Heating Solar Collectors – Flat Plate Collectors' or 'Glazed Water Heating Solar Collectors – Evacuated Tube and Concentrating Collectors' sections
  - <http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/heat-chauffage/v2008/collectors-capteurs-eng.cfm>
- Microsoft Excel-based calculator
  - <http://dev-oee.nrcan.gc.ca/residential/personal/retrofit-homes/solar-form.cfm>
- For other measures and more information, consult the 'Eligible Products' section of the Questions and Answers Web page
  - <http://dev-oee.nrcan.gc.ca/residential/personal/retrofit-homes/questions-answers.cfm>



**ecoENERGY**  
an ecoACTION initiative


# **Solar Domestic Hot Water Post-Retrofit Evaluation Procedure (installers and energy advisors)**



Natural Resources  
Canada


Ressources naturelles  
Canada

**Canada**



# SDHW Evaluation Procedure (Installers)

- For single family and MURBs, the **installer** must supply the following information on the SDHW system **invoice** for each system installed:
  - System description and usage (e.g..DHW only, space heating, DHW and space heating, pool).
  - Collector model # and manufacturer's name from either
    - the List of Accepted Solar Collectors, or
    - the Performance Directory of Solar Domestic Hot Water systems, Tables 1 and 2.
  - Number of collectors installed.
  - Solar tank size.
  - System total capacity in GJ/yr and the source of the capacity calculation (per system if more than one installed).



# SDHW Evaluation Procedure (Energy Advisor)

The **energy advisor** must gather and verify the following information on data collection form/photo for each system installed:

- System description and usage.
- Number of collectors installed, collector model # and manufacturer.
- Size of solar tank.
- System eligibility under ecoENERGY by verifying:
  - collector or system eligibility on NRCan's lists,
  - minimum capacity criteria is met (no less than 6 GJ/yr after April 1, 2010, see Excel table), and
  - system is used for DHW purpose.
- System total capacity in MJ/yr to input in the DHW CSIA field (per system if more than one installed).
- Source of the capacity calculation.
- Number of residential units in the case of a MURB.



**ecoENERGY**  
an ecoACTION initiative


# Solar Domestic Hot Water Grant Amounts



Natural Resources  
Canada

Ressources naturelles  
Canada

**Canada**



# Grant Amounts for Single Family Homes

- Before April 1, 2010
  - one SDHW system installed using qualified collectors (CSA F328).
  - Grant: \$1250.
- As of April 1, 2010
  - CSA F379
  - Minimum SDHW system's annual performance rating required: 6 GJ/yr.
  - Grant: \$1250.

# Grant Amounts for Eligible MURBs

- Before April 1, 2010
  - \$1250/system installed using qualified collectors.
  - Maximum grant: \$12500.
- As of April 1, 2010
  - Minimum system's annual performance rating required: 6 GJ/yr.
  - Minimum overall capacity required as per table (GJ/yr).
  - Grant as per table

Summary of Available Incentives and Required Minimum System Capacity

Number of Residential Units	Incentive for Eligible System Installed in a MURB	Minimum System Capacity (GJ/yr)
2	\$1,250	6
3	\$1,250	9
4	\$2,500	12
5	\$2,500	15
6	\$3,750	18
7	\$3,750	21
8	\$5,000	24
9	\$5,000	27
10	\$6,250	30
11	\$6,250	33
12	\$7,500	36
13	\$7,500	39
14	\$8,750	42
15	\$8,750	45
16	\$10,000	48
17	\$10,000	51
18	\$11,250	54
19	\$11,250	57
20	\$12,500	60



# Grant Amounts for Eligible MURBs

- Before April 1, 2010
  - \$1250/system installed using qualified collectors.
  - Maximum grant: \$12500.
- As of April 1, 2010
  - Minimum system's annual performance rating required: 6 GJ/yr.
  - Minimum overall capacity required as per table (GJ/yr).
  - Grant as per table

Summary of Available Incentives and Required Minimum System Capacity

Number of Residential Units	Incentive for Eligible System Installed in a MURB	Minimum System Capacity (GJ/yr)
2	\$1,250	6
3	\$1,250	9
4	\$2,500	12
5	\$2,500	15
6	\$3,750	18
7	\$3,750	21
8	\$5,000	24
9	<del>\$5,000</del>	27
10	\$6,250	30
11	\$6,250	33
12	\$7,500	36
13	\$7,500	39
14	\$8,750	42
15	<del>\$8,750</del>	45
16	\$10,000	48
17	\$10,000	51
18	\$11,250	54
19	\$11,250	57
20	\$12,500	60





# Detailed Grant Calculation


- The grant calculation is based on the number of residential units in a MURB building and is calculated as follows:
  - Multiply the number of residential units by 3 GJ/yr per residential unit to determine the required minimum eligible system capacity (note: if the system's capacity is less, the system is not eligible).
  - Divide that number by 6 GJ/yr.
  - Round down that number to the next whole number.
  - Multiply the whole number by the single family grant amount (e.g., \$1,250) to determine the eligible grant for the MURB.



# Detailed Grant Calculation (Example)

## Example for 5 Unit MURB

- 5 residential units x 3 GJ/yr per residential unit = 15 GJ/yr  
= minimum system's capacity
- 15 GJ/yr ÷ 6 GJ/yr = 2.5
- Round down = 2
- Eligible Grant = 2 x \$1,250 = \$2,500 provided the installed system capacity is equal to or greater than the number of residential units time 3 GJ/yr (minimum system capacity).



# Capacity of SDHW Systems: 3 Approaches

## Approach # 1

- System(s) appears in CanmetENERGY's Performance Directory of Solar Domestic Hot Water Systems (Table 1 or 2).

## Approach # 2

- Using the Microsoft Excel-based calculator.

## Approach # 3

- If the collectors are not listed in the calculator and the system is not listed on CanmetENERGY's Web site, then
- the installer must provide the system capacity using the standard day test defined in CAN/CSA F379 (150 litres per day per residential unit) by generating a TRNSYS simulation.


# System Capacity: Approach # 1

Table 1 Certified Solar Domestic Hot Water Systems (modified 2009-11-03)

Make	Model	Annual Performance Rating	Collectors Number & Size	Collector Type	Tank Volume	System Type	Retrofit Eligible <sup>2</sup>	Energy Star Eligible
<a href="#">Atis Group</a>	Solensis ST-0100*	5.27 GJ/y <sup>1</sup>	1 x 2.874 m <sup>2</sup>	Flat Plate Solensis-TL-ST-01	272 L	Solar Preheat	No	No
	Solensis ST-0200*	8.69 GJ/y	2 x 2.874 m <sup>2</sup>	Flat Plate Solensis-TL-ST-01	272 L	Solar Preheat	Yes	Yes
<a href="#">Copperhill Alternate Energy Inc.</a>	CETT-32-08-CP-06	3.39 GJ/y <sup>1</sup>	1 x 3.43 m <sup>2</sup>	ETC CETT-32-08	155 L	Solar Preheat	No	No
	CETT-32-08-CP-06	6.35 GJ/y	2 x 3.43 m <sup>2</sup>	ETC CETT-32-08	155 L	Solar Preheat	Yes	No
<a href="#">Enerworks Inc.</a>	EWRA 1*	5.27 GJ/y <sup>1</sup>	1 x 2.874 m <sup>2</sup>	Flat Plate COL-4x8-TL-SG1-SD10	272 L	Solar Preheat	No	No
				Flat Plate			Yes	Yes
							No	No
							Yes	No
							Yes	Yes

Check for the system's


- brand name,
- collector model and
- annual performance rating greater than 6GJ/y.
- Add all systems to determine total system capacity.



# System Capacity: Approach # 1

## Based on Multiple or Single Certified Packages

- Each system must be listed in CanmetENERGY's Tables 1 or 2, and must have a minimum 6 GJ/year capacity. "Certified" refers to certified or in the process of being certified to CSA F379.
- Find the annual performance rating of each system from the CanmetENERGY Table 1 or 2.
- Add the annual performance rating of each system to establish if the total system capacity in GJ/yr.
- Check in Excel table to determine if the minimum eligible system capacity is met for the number of residential units.
- If minimum capacity is met look up the grant amount in Excel table, if minimum capacity is not met the system is NOT eligible.



# System Capacity: Approach # 1 (Example)

## Example for 5-Unit Building Using 3 Certified Package Systems

- Assuming the annual performance rating for the selected certified system is 6.36 GJ/yr each.
- $6.35+6.35+6.35 = 19.05$  GJ/yr system total capacity.
- 5 residential units x 3 GJ/yr per residential unit = 15 GJ/yr = minimum eligible system capacity.
- Installed system's capacity (19.05 GJ/yr) which is greater than the minimum system capacity of 15 GJ/yr.
- Eligible grant is \$2,500.

# System Capacity: Approach # 2

## Excel based calculator using collectors from a certified packaged system

ecoENERGY Retrofit – Homes Program  
Solar Domestic Hot Water Systems for Multi-Unit Residential Buildings (MURBs)

Select The Manufacturer / Collector Model Name & Number From The Drop-Down List	Enter The Number of Residential Units	Enter The Number of Collectors	Estimated System Capacity (Annual Performance Rating) (GJ/yr)	Estimated Annual Performance Capacity Per Residential Unit (GJ/yr)
Copperhill Alternate Energy Inc. / ETC CETT-32-08	5	6	19.05	3.81


Incentive for the system identified above: **\$2,500**

When an "Other NRCAN Approved Solar Collector" is used, enter the system capacity generated in a TRNSYS simulation as defined in CAN/CSA F379 using the standard day test of 150 litres per day per residential unit. (GJ/yr)
0.00

Summary of Available Incentives and Required Minimum System Capacity		
Number of Residential Units	Incentive for Eligible System Installed in a MURB	Minimum System Capacity (GJ/yr)
2	\$1,250	6
3	\$1,250	9
4	\$2,500	12
5	\$2,500	15

<http://oee.nrcan.gc.ca/retrofit/homes/solar>






# System Capacity: Approach # 2

## Excel based calculator using collectors from a certified packaged system

- Select the collectors used in the installed system from the pull down menu.
- Enter the number of collectors.
- Enter the number of residential units
  - Note: If the total system's capacity installed is equal to or greater than the minimum eligible system capacity, the system is eligible.
  - If the total system's capacity installed is less than minimum eligible system capacity, the system is NOT eligible.




# System Capacity: Approach # 3

## Calculation Based on Installer-Supplied System Capacity

This method can only be used when Approaches 1 and 2 are not applicable.

- Ensure the collector model is listed on the ecoENERGY for Renewable Heat List of Accepted Solar Collectors.
- The installer must provide calculated system capacity using the conditions specified for the standard day test defined in CSA F379 (150L/day per residential unit) by generating a TRNSYS simulation.
- Check in Excel table to determine if the minimum eligible system capacity is met.
- If minimum capacity is met look up the grant amount in Excel table, if minimum capacity is not met the system is NOT eligible.



# System Capacity: Approach # 3 (Example)

- Example for 5-unit MURB using a 26 GJ/yr system
  - The system is on the list of acceptable collectors.
  - 26 GJ/yr was found using TRNSYS simulation.
  - Minimum eligible capacity for a 5 unit residential building x 3 GJ/yr per residential unit = 15 GJ/yr (or see Excel table).
  - Verify if that the minimum system capacity is met: 26 GJ/yr is greater than 15 GJ/yr. The system capacity meets the minimum and is therefore eligible for the grant.
  - The eligible grant is \$2,500 for a 5-unit MURB.



**ecoENERGY**  
an ecoACTION initiative

# Modelling of Solar Domestic Hot Water Systems in HOT2000

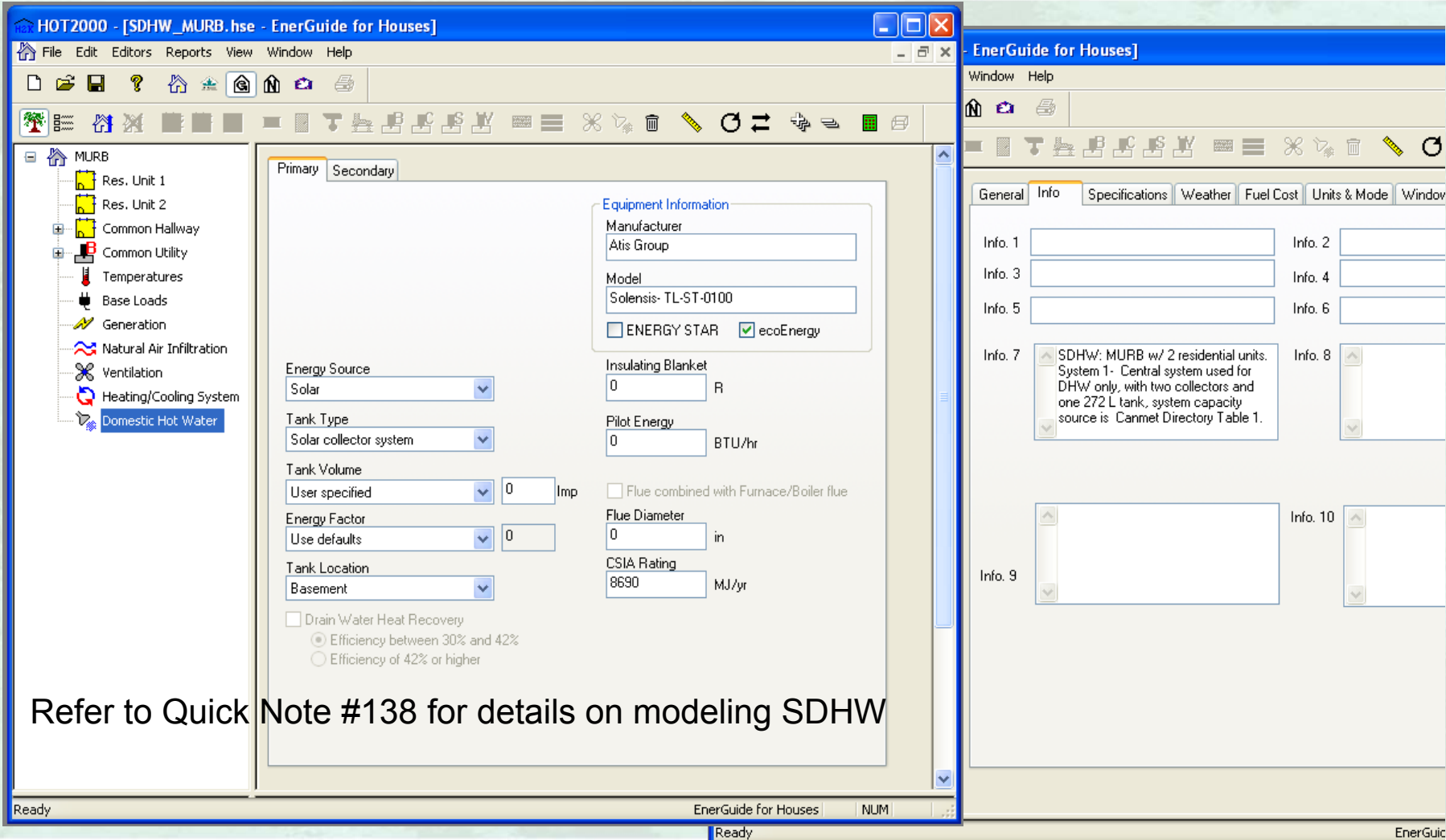


Natural Resources  
Canada

Ressources naturelles  
Canada

**Canada**

# Modelling SDHW systems in HOT2000



The screenshot displays the HOT2000 software interface for modeling a Solar Domestic Hot Water (SDHW) system. The main window, titled "HOT2000 - [SDHW\_MURB.hse - EnerGuide for Houses]", shows a project tree on the left with "Domestic Hot Water" selected. The central panel is divided into "Primary" and "Secondary" tabs, with "Secondary" active. It contains the following settings:

- Energy Source:** Solar
- Tank Type:** Solar collector system
- Tank Volume:** User specified, 0 Imp
- Energy Factor:** Use defaults, 0
- Tank Location:** Basement
- Equipment Information:** Manufacturer: Atis Group; Model: Solensis- TL-ST-0100;  ENERGY STAR;  ecoEnergy
- Insulating Blanket:** 0 R
- Pilot Energy:** 0 BTU/hr
- Flue combined with Furnace/Boiler flue
- Flue Diameter:** 0 in
- CSIA Rating:** 8690 MJ/yr
- Drain Water Heat Recovery
  - Efficiency between 30% and 42%
  - Efficiency of 42% or higher

The right-hand window, titled "EnerGuide for Houses", shows the "Info" tab with ten information fields. Info 7 contains a detailed description: "SDHW: MURB w/ 2 residential units. System 1- Central system used for DHW only, with two collectors and one 272 L tank, system capacity source is Canmet Directory Table 1."

Ready EnerGuide for Houses NUM Ready EnerGuide

Refer to Quick Note #138 for details on modeling SDHW





# Modelling SDHW systems in HOT2000

## For pre-retrofit energy evaluations completed before April 1, 2010

- Select the 'Domestic Hot Water' component, and select the 'Primary' tab.
- For 'Fuel Type' select 'Solar'; the 'Tank Type' will automatically be defaulted to 'Solar collector system' and the 'Tank Volume' will remain at 0.
- The manufacturer of the SDHW collectors must be entered in the 'Manufacturer' field in HOT2000.
- The model number of the SDHW collectors must be entered in the 'Model' field in HOT2000.
- Enter the 'CSIA Rating' in MJ/yr for the system if known. If this is unknown, enter 5500 MJ/yr.
- Select ecoENERGY check box only if:
  - collectors or systems have been verified as eligible on NRCan's lists, and
  - system is used for DHW purpose.
- In Info Field 7 enter number of collectors installed, system(s) description, usage and source of the capacity calculation.
- Enter the other DHW system into the 'Secondary' tab in HOT2000 as per normal practice.



# Modelling SDHW systems in HOT2000

## For pre-retrofit energy evaluations completed on or after April 1, 2010

- Select the 'Domestic Hot Water' component, and then select the 'Primary' tab in HOT2000.
- For 'Fuel Type' select 'Solar'; the 'Tank Type' will automatically be defaulted to 'Solar collector system' and the 'Tank Volume' will remain at 0 .
- Enter the 'Make' from the NRCan list in the 'Manufacturer' field in HOT2000.
- Enter the 'Model' from the NRCan list in the 'Model' field in HOT2000.
- Multiply the 'Annual Performance Rating' (in GJ/yr) from the tables by 1000 and enter the new value in the 'CSIA Rating' field in HOT2000 (capacity in MJ/yr from one of the 3 approaches).
- Select ecoENERGY check box only if:
  - collectors or systems have been verified as eligible on NRCan's list(s), and
  - system is used for DHW purpose.
- In Info Field 7:
  - enter the number of residential units if a MURB, and
  - enter the system description and usage, number of collectors installed and tank size, and source of the capacity calculation.
- Enter the other DHW system into the 'Secondary' tab in HOT2000 as per normal practice.
- Model any additional systems in units if more than one system is installed in a MURB.



# MURBs as of April 1, 2010 (cont'd)

- Owners of larger MURBs (greater than 3 storeys or 600 square metre footprint, etc.) are not eligible for ecoENERGY Retrofit – Homes
  - may be eligible for either the ecoENERGY for Renewable Heat incentive or the ecoENERGY Retrofit – Small and Medium Organizations incentive.
- NOTE that if the system is not used to heat domestic hot water, it is not eligible for a grant.



# Thank you Questions?





# Website References

- Website with all SDHW details
  - <http://oee.nrcan.gc.ca/retrofit/homes/solar>
- CanmetENERGY Performance Directory of Solar Domestic Hot Water Systems
  - [http://canmetenergy-canmetenergie.nrcan-nrcan.gc.ca/eng/renewables/solar\\_thermal/sdhw\\_directory.html](http://canmetenergy-canmetenergie.nrcan-nrcan.gc.ca/eng/renewables/solar_thermal/sdhw_directory.html)
- ecoENERGY for Renewable Heat List of Accepted Solar Collectors
  - collectors from the 'Glazed Water Heating Solar Collectors – Flat Plate Collectors' or 'Glazed Water Heating Solar Collectors – Evacuated Tube and Concentrating Collectors' sections
  - <http://www.ecoaction.gc.ca/ecoenergy-ecoenergie/heat-chauffage/v2008/collectors-capteurs-eng.cfm>
- Microsoft Excel-based calculator
  - <http://dev-oee.nrcan.gc.ca/residential/personal/retrofit-homes/solar-form.cfm>
- For other measures and more information, consult the 'Eligible Products' section of the Questions and Answers Web page
  - <http://dev-oee.nrcan.gc.ca/residential/personal/retrofit-homes/questions-answers.cfm>