

Solar Project Checklist



PROJECT INFORMATION:

Heating Representative, or Project Facilitator:

Name:

Company:

City: State/Prov:

Tel.:

Email:

Solar Project Details:

Address:

City:

State/Prov: Zip/Postal Code:

Closest major city:

*Proposed budget for the solar project (materials + installation) \$ New Construction Retrofit

General sizing guidelines for domestic hot water preheat systems including estimated solar material costs

- 1-2 people = 1x Vitosol 200-FM collector + 160L Vitocell preheat tank ≈ \$5,700 - \$6,700 CAD
 - 3 people = 2x Vitosol 200-FM collectors + 300L Vitocell preheat tank ≈ \$8,700 - \$10,200 CAD
 - 4-5 people = 3x Vitosol 200-FM collectors + 300L Vitocell preheat tank ≈ \$11,700 - \$13,750 CAD
 - 6-7 people = 4x Vitosol 200-FM collectors + 450L Vitocell preheat tank ≈ \$14,700 - \$17,250 CAD
- *Estimated Cost*
Based on List Pricing*

****Installation must be completed by a certified contractor at additional costs. Viessmann does not offer installation services.***

PROJECT SUPPORT REQUEST TYPE:

- Solar Thermal Simulation Sample Piping Layout Drawing Material Quotation

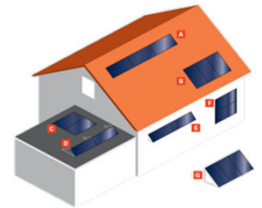
SOLAR LOAD TYPE:

- DHW Pre-Heating Swimming Pool Heating Space Heating Support (Spring and Fall)

COLLECTOR INSTALLATION AREA DATA:

Solar installation location:

- Sloped Roof (angles between: 10° and 80°) Flat roof (angles between: 25° and 80°)
- Wall mount (angles between: 45° and 80°) Ground mount (angles between: 25° and 80°)



Installation deviation from due South:

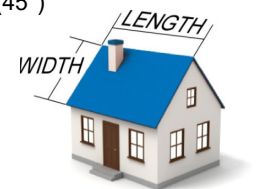
- | | | | | |
|---|---|--------------|-------------------|-------------|
| <u>West</u> | <u>South-West</u> | <u>South</u> | <u>South-East</u> | <u>East</u> |
| <input type="checkbox"/> 90° <input type="checkbox"/> 75° <input type="checkbox"/> 60° <input type="checkbox"/> 45° <input type="checkbox"/> 30° <input type="checkbox"/> 15° <input type="checkbox"/> 0° | <input type="checkbox"/> 15° <input type="checkbox"/> 30° <input type="checkbox"/> 45° <input type="checkbox"/> 60° <input type="checkbox"/> 75° <input type="checkbox"/> 90° | | | |

Desired collector installation angle (from the horizontal plane):

- 10° 15° 20° 25° 30° 35° 40° 45° 50° 55° 60° 65° 70° 75° 80°

Sloped Roof Pitch

- 1/12 (4.8°) 2/12 (9.5°) 3/12 (14°) 4/12 (18.4°) 5/12 (22.6°) 6/12 (26.6°)
- 7/12 (30.3°) 8/12 (33.7°) 9/12 (36.9°) 10/12 (39.8°) 11/12 (42.5°) 12/12 (45°)



Available Roof Surface Area:

Length (East-West): ft m Width (North-South): ft m

• Please provide drawings of area showing overall dimensions, building orientation, any roof obstructions (e.g. skylights or chimneys).

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COLLECTOR TYPE:

Glazed Flat Plate Collectors with ThermProtect Modulating Absorber Coating

*Simulation will be run with collector orientation selected, or the best-choice collector model for the application:



Vertical Orientation

- 200-FM, SV2F 2.32m² (25ft²)
- Sloped Roofs
 - Ground Mounts
 - Flat Roofs



Horizontal Orientation

- 200-FM, SH2F 2.32m² (25ft²)
- Sloped Roofs
 - Ground Mounts
 - Flat Roofs
 - Facade or Walls

Don't know - Use the best collector option to match the project requirements.

BUILDING DATA:

Mechanical Room Location and Space:

Mechanical room location:

- Basement Penthouse Other:

Floor space available for solar equipment and solar storage tanks:

Length: ft m Width: ft m

Solar Loop Piping:

Total pipe length from collector array to solar storage tank/pump unit (one way): ft m

Vertical distance from top of collectors to solar pump

static head: ft m # of stories:

DOMESTIC HOT WATER HEATING:

Daily DHW Usage: USG/day Liters/day DHW Temperature: °F °C

Notes: The usage rate must be the average daily usage, at the delivery temperature specified above.

The daily rate must be based on calculation, metering, fuel bills or estimation.

**Do not supply fixture counts, or maximum flow rates (e.g. L/min or USG/min).*

Domestic Hot Water (DHW) Use Pattern: Is the hot water usage the same all year? Yes No

If No, please fill out monthly usage chart below. Indicate months with consumption rate less than 100%

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

← Percentage (%)

Application Type:

Single family Home:

Number of people in home? Number of bathrooms: Whirlpool or tub capacity: USG L

*DHW recirculation loop? Yes No Length (one-way): ft m Hours used:

Multi-family apartment:

Number of apartments: Average number of people per apartment:

*DHW recirculation loop? Yes No Length (one-way): ft m Hours used:

Other:

- Hotel School Office Restaurant Hospital Nursing Home Laundry Car Wash

Current Domestic Hot Water (DHW) Heating Equipment:

Tank type: Direct fired Indirect Instantaneous unit Heat pump DHW Tank Temp: °F °C

Fuel type: Natural Gas Propane Fuel Oil Electricity DHW Backup: Btuh kW

Number of tanks: each tank having a fluid capacity of: USG L

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SWIMMING POOL HEATING:

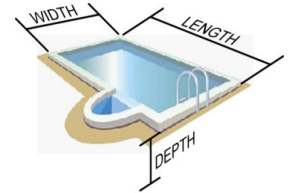
**Viessmann strongly recommends using a pool cover to reduce thermal losses from the pool.*

Pool Size:

Pool shape: Rectangle Round Oval Kidney Volume of pool: _____ USG _____ L
 Length: _____ ft _____ m Width: _____ ft _____ m Average depth: _____ ft _____ m

Pool location:

Outdoor Pool
 Swimming season: _____ month / day Opening date: _____ month / day Closing date: _____ month / day
 Geographic location: Unsheltered Sheltered Well Sheltered
 Windshield: None Partial Full



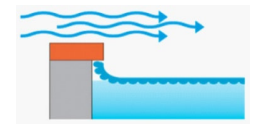
Indoor Pool Pool room air temp: _____ °F _____ °C Pool room relative humidity: _____ %

Pool heating data:

Desired pool temperature: 22°C (72°F) 24°C (75°F) 26°C (79°F) 28°C (82°F) 30°C (86°F)

Is a pool cover used? Yes No Pool cover used hours/day: _____ hrs

Swimmers per day: _____ Daily make-up water = 20L (5.3 USG) x persons: _____ USG _____ L



Is backup heating used? Yes No Pool heater type: _____

Fuel type: Natural Gas Propane Fuel Oil Electricity Backup heater: _____ Btuh _____ kW

SPACE HEATING SUPPORT:

**Viessmann only recommends using solar to supplement low temperature heating systems.*

Size of heated area: _____ ft² _____ m²

Design heating load: _____ Btuh _____ kW Outdoor design temperature: _____ °F _____ °C



High temp heating (fin tube, radiator, fan coil) System temp: _____ °F _____ °C % of building heated: _____ %

Low temp heating (radiant tubing, mixing valve) System temp: _____ °F _____ °C % of building heated: _____ %

Fuel type: Natural Gas Propane Fuel Oil Electricity Backup heater: _____ Btuh _____ kW

ADDITIONAL COMMENTS:

Please fill out as completely as possible, then return to the appropriate solar project support contact at Viessmann, North America:

Warwick, RI, USA	email: US_Solar@viessmann.com	Phone (401) 732-0667	Fax (401) 732-0590
Waterloo, ON, Canada	email: CA_Solar@viessmann.com	Phone (519) 885-6300	Fax (519) 885-0887
Langley, BC, Canada	email: CA_Solar@viessmann.com	Phone (604) 533-9445	Fax (604) 533-9439

NOTICE: Any information which is not supplied, will require the solar designer to make assumptions. This may result in inaccurate performance estimates, and can sometimes lead to oversized systems. Viessmann strongly encourages that all building owners seriously considering installing a solar system have the hot water consumption metered, to ensure a properly sized solar domestic hot water system.