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	≈	$7,350 - $8,400 CAD
3 people	=	2x Vitosol 200-FM collectors + 300L Vitocell preheat tank	≈	$10,500 - $12,600 CAD
4-5 people	=	3x Vitosol 200-FM collectors + 300L Vitocell preheat tank	≈	$14,500 - $16,800 CAD
6-7 people	=	4x Vitosol 200-FM collectors + 450L Vitocell preheat tank	≈	$18,000 - $21,000 CAD

Estimated Cost
Based on List Pricing

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

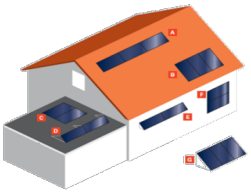
PROJECT SUPPORT REQUEST TYPE:

☐ 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:

West					South-West					South		South-East					East
☐ 90°	☐ 75°	☐ 60°	☐ 45°	☐ 30°	☐ 15°	☐ 0°	☐ 15°	☐ 30°	☐ 45°	☐ 60°	☐ 75°	☐ 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 Flate 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 2.32m² (25ft²)

· Sloped Roofs · Ground Mounts
· Flat Roofs

Horizontal Orientation

☐ 200-FM 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

← 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

Solar Project Checklist

SWIMMING POOL HEATING:

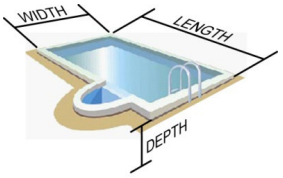
**Viessmann strongly recommends using a pool cover to reduce thermal losses from the pool.*

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: Opening date: _____ *month / day* Closing date: _____ *month / day*

Geographic location: ☐ Unsheltered ☐ Sheltered ☐ Well Sheltered

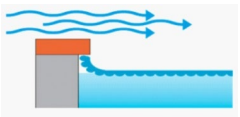
Windshield: ☐ None ☐ Partial ☐ Full

☐ *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



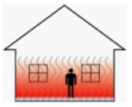
Swimmers per day: _____ Daily make-up water = 20L (5.3 USG) x persons: _____ USG _____ L

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-climatesolutions.com	Phone (401) 732-0667
Waterloo, ON, Canada	email: CA_Solar@viessmann-climatesolutions.com	Phone (519) 885-6300
Langley, BC, Canada	email: CA_Solar@viessmann-climatesolutions.com	Phone (604) 533-9445

***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.*