

# Sizing chart - domestic

## How to correctly size your new Greenland Systems solar hot water system

With a long service life, a correctly sized Greenland Systems evacuated tube solar hot water system will typically save Tasmanian householders between 60-80% off their yearly hot water bill and reduce Tasmania's reliance on Basslink (coal fired power from Victoria).

### Four simple steps

1. Determine household hot water requirements
2. Conduct site analysis
3. Size cylinder and evacuated tube collector
4. Determine boosting options

#### 1. Household requirements



- Small
- Single person, shack



- Medium
- Couple, retired couple, couple & 1 child



- Large
- Family, couple with regular guests

#### 2. Site analysis

##### a. Roof orientation

Ideally true north (magnetic north, add 12-15 degrees to west).

##### b. Roof pitch

Ideal pitch = site latitude (~ 40° Tasmania-wide). Add 5-10° to increase winter solar performance (also reduces risk of overheating during summer).

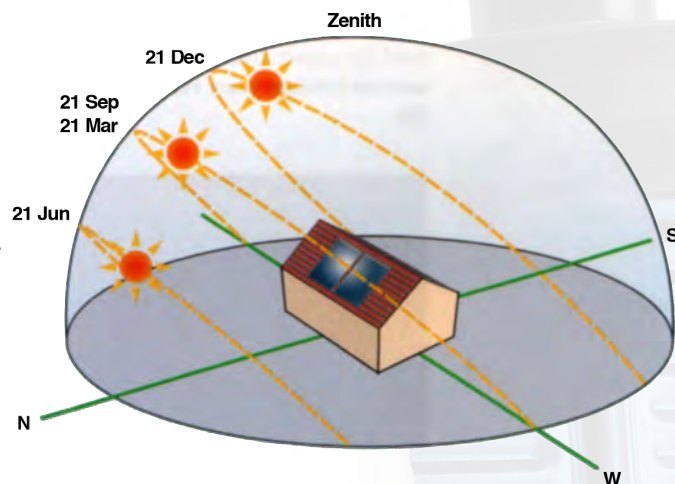
##### c. Shading

Ideally no shading on collector from at least 10:00am - 2:00pm (winter months).

##### d. Solar line length

Distance between solar collector and cylinder:  
 < 5 metres: excellent  
 5-10 metres: very good  
 > 12 metres: must factor in heat losses.

NB: Solar rated, high temperature copper pipe insulation only (minimum 19mm diameter).



## Sizing chart - domestic (cont)

### 3. Size cylinder and evacuated tube collector



- GL10008-170
- GL100-08 (8x100mm) tubes
- 160 litre Everlast cylinder
- Small household



- GL10012-260
- GL100-12 (12x100mm) tubes
- 250 litre Everlast cylinder
- Medium household



- GL10016-320
- GL100-16 (16x100mm) tubes
- 315 litre Everlast cylinder
- Large household

### 4. Boosting options

Electric: Tariff 42 HydroHeat, Tariff 61 OffPeak or Tariff 31 Standard/PAYG.

Gas: Natural gas or LPG (bottle) gas.

Wood: Wetback stove connection.

NB: System sizes are an indication only, and may change depending on boosting options available, and other site factors. Please consultate our domestic solar engineers for further clarification.



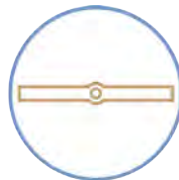
- Custom system
- GL100-24 (24x100mm) tubes
- 550 litre cylinder (multi coil)
- Domestic solar underfloor and radiator heating, commercial

## Types of evacuated tubes

### Twin wall tube



58 mm  
2 mm  $\varnothing$  glass  
Vacuum between inner & outer glass



GL100



GL100-PT



GL100-DF

2.5-2.8 mm  $\varnothing$  AS/NZS 2712 hail resistant boron glass  
Vacuum within entire tube

### Greenland Systems tubes