Example name:

Template completed by:
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For installations

BISTS Location: *Stocholm, Sweden 59°19'46"N 18°4'7"E*
Climate Type: *Dfb*
Building Use: *Public (Älta Elementary school)*

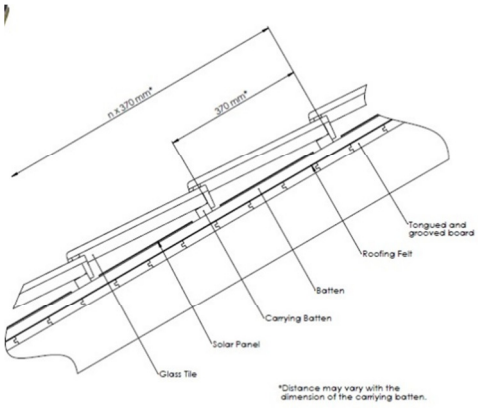
Level of BISTS integration
Level 2

O New Build
◉ Refurbishment
O Other: ……

Type of BISTS:

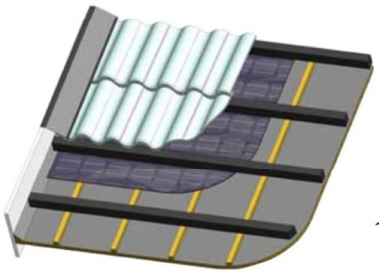
Hybrid

Function(s):
O Air heating
O Water heating
O Combi-system
O Cooling/ventilation/shading
◉ PV/T
O linked to another system (e.g., heat pump)
O Other: ……



Building element:

O Facade
◉ Roof
O Other: ……..



BISTS characteristics:

160 m2 SolTech Sigma combined with 1kWp SolTech Power. The combination facilitates for the sun to produce electricity to power all system functions that require electricity.
SolTech has an energy capacity of 400 kWh per square meter absorber during year period.

Stage of Development: **Responsible:** *Sol Tech Energy* (www.soltechenergy.com)

O	Idea/Patent	……..
O	Prototype	……..
O	Demonstration	……..
◙	Integral building element	……..
◙	Commercially available	……..

BISTS description and context

Public (Älta Elementary school) 3 floors, traditional form building.

System viability:
SolTech Energy has received an order worth 1.2 million kronor from Nacka municipality for a solar energy system that generates both thermal heat and electricity. System to be installed at Dwell on school outside Stockholm is 160 sqm.

By combining SolTechs thermal solar energy systems with traditional photovoltaic technology, an efficient hybrid solution that provides both electricity and heat. The electricity-generating part of the system produces on an annual basis the same amount of electricity that is used to power pumps, control / regulation technology etc. This creates an energy neutral system!

System's thermal energy component, coupled with the school's heating system for heating and hot water production.

Modelling and simulation tools developed/used

BISTS Performance data

Based on:
◉ Estimation
O Detailed simulation
◉ Measurement/testing
O Long-term monitoring

Performance parameters

For integrated systems:
key performance indicators -

Solar savings fraction: %
Light transmittance: %
Solar transmittance: %
Total solar energy transmittance: %:
Solar heat gain factor: %
Building fabric U-values: W/m^{2}K
Noise, fire, etc ratings
Other:

For separate collectors:
performance rating coefficients -
(EN12975, a0,a1,a2), ASHRAE, etc

Other:

Additional information:
Sources and references: *http://soltechenergy.se*