

Naked Energy.

Case studies



Solar
Redefined

Contents

Page 1: Naked Energy

Page 2–3: Installations

Page 4: Certification, Remote monitoring

Page 5–6: Performance

Naked Energy

Naked Energy are a pioneering renewable design and engineering business headquartered in the UK. Their team consists of 20 scientists, researchers, engineers and entrepreneurs, working at the forefront of solar technology projects around the world. They recently won Best Innovation at the 2021 CIBSE Awards for the globally unique combined heat and power solar product, Virtu PVT, and their innovative VirtuHOT technology has been implemented at many sites globally with best-in-class energy production.

Naked Energy spent years of R&D making the virtu product range ready for international markets. Following R&D, Virtu underwent 3rd party certification and was tested under the toughest global standards.



Virtu has now been deployed across almost 60 projects in 13 different countries. Below are examples of installations, more information on the certification process, data monitoring, and performance data from live sites.

Virtu Installations



Site	The British Library	
Location	London, United Kingdom	
Technology	Virtu PVT, VirtuHOT	
Application	Dehumidification of archives	
Array size	975 collectors	731 m2 roof area
Capacity	390 kWp thermal	



Site	Delémont Apartments	
Location	Delémont, Switzerland	
Technology	VirtuHOT	
Application	DHW pre-heat to displace natural gas	
Array size	700 collectors	525 m2 roof area
Capacity	280 kWp thermal	



Site	Westgate Leisure Centre	
Location	Chichester, United Kingdom	
Technology	VirtuHOT	
Application	Pool heating	
Array size	420 collectors	315 m2 roof area
Capacity	168 kWp thermal	



Site	Woodgreen Leisure Centre	
Location	Oxford, United Kingdom	
Technology	VirtuHOT	
Application	Pool heating & space heating	
Array size	495 collectors	371 m2 roof area
Capacity	200 kWp thermal	

Virtu Installations



Site	Ealing/Hounslow Schools, London	
980 VirtuHOT	735 m ²	392 kWp thermal



Site	Neils Rodin Agrumes, Switzerland	
125 VirtuHOT	94 m ²	50 kWp thermal



Site	University of Westminster, London	
195 VirtuHOT/PVT	146 m ² array	78 kWp thermal



Site	The SPECIFIC Active Office, Swansea	
40 VirtuPVT	30 m ² array	16 kWp thermal



Site	Van Werven Recycling, Netherlands	
360 VirtuHOT	270 m ² array	144 kWp thermal



Site	Vierhouterbos Hotel, Netherlands	
210 VirtuHOT	158 m ² array	84 kWp thermal



Site	Landal Greenparks, Netherlands	
140 VirtuHOT/PVT	105 m ²	56 kWp thermal



Site	Department of Defence, Netherlands	
80 VirtuHOT	60 m ²	32 kWp thermal

Independent certification & testing



TUV process

Naked Energy have undergone 3rd party testing and certification with various international certification bodies, including TÜV Rheinland. TÜV Rheinland is an independent inspection service that has been a global leader since its foundation 145 years ago. A TÜV Rheinland certification is globally recognized and ensures the authenticity of a company's safety and performance claims in compliance to international standards.

Testing includes but is not limited to:

- Determination of performance data by means of a unique indoor solar simulator
- Sample picking and production site inspections
- Testing of cyclical mechanical stress
- Hail testing with ice balls of different hail classes
- Testing of ageing by means of climate chambers (humidity/frost, damp/heat, temperature cycles)
- Cyclical outdoor and indoor shock tests on collectors and absorbers
- Rain penetration and frost resistance tests
- Fire tests on collectors

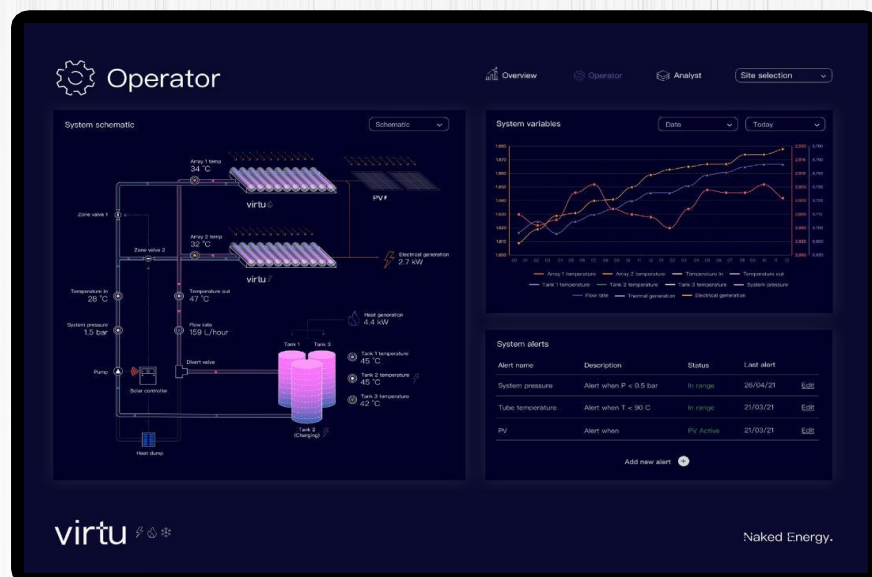
Virtu certification document: http://www.solarkeymark.nl/DBF/PDF_Downloads/DS_3125.pdf

Remote monitoring

Clarity 247 enables accurate, ongoing measurement of array performance, providing customers with confidence in continued system functionality.

Features include:

- Thermal Output monitoring
- Electrical Output monitoring
- Financial reporting
- Carbon reporting
- Automated fault detection
- Performance optimisation
- PV/renewables integration

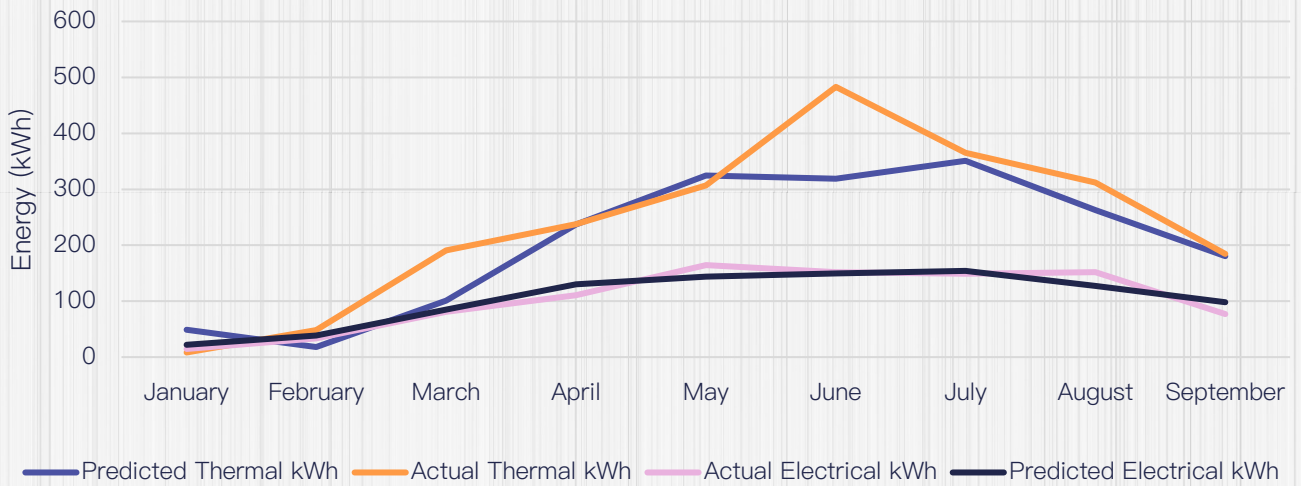


Performance: Mentmore Homes

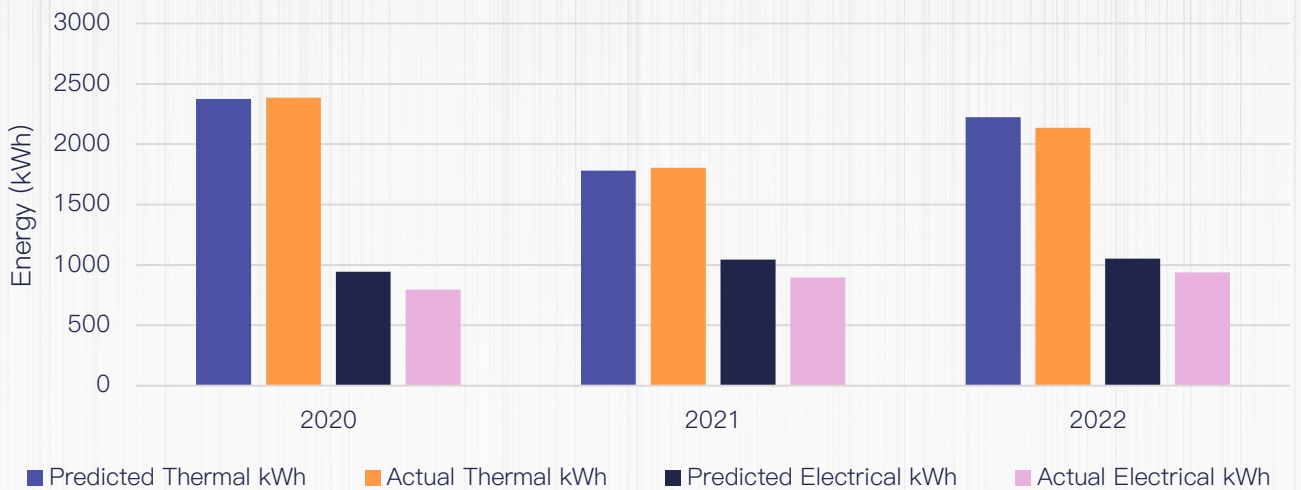


Site	Mentmore Homes
Location	Brigadoon, UK

Monthly kWh Predictions vs Actual



Annual kWh Predictions vs Actual

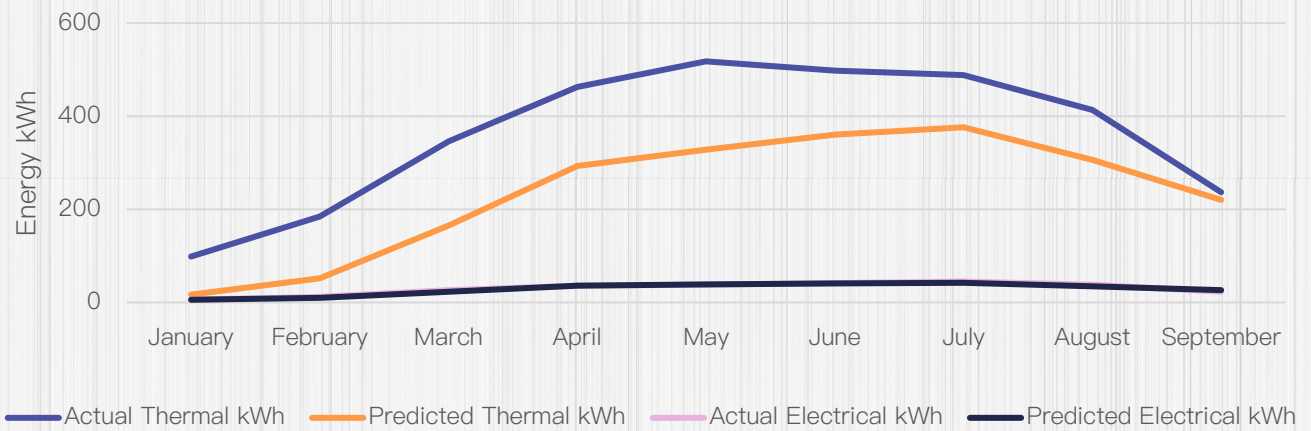


Performance: Sainsbury's Supermarket



Site	Sainsbury's Supermarket
Location	Crawley, UK

Monthly kWh Predictions vs Actual



Annual kWh Predictions vs Actual

