

Your Intuitive Energy Solution.

Energy Sources

- Solar
- Heat Pump
- Wet Back
- Boiler

Energy Uses

- DHW tanks
- Radiators
- Hydronic Floor Heating
- Pool Heating



Solamander

- An all-in-one system that's simple in concept, yet sophisticated in performance!
- An integrated and sustainable energy management system that prioritises renewable energy sources for a variety of energy uses in a home.

SUSTAINABLE COMFORT LIVING

The Solamander Hydronic Energy Hub achieves an optimum and pleasant indoor environment with on-demand comfort heating throughout the year.

This system has been designed to be an environmentally sound and sustainable solution that helps offset household greenhouse gas emissions and gets end users one step closer to a carbon neutral home.

With a particular focus on comfort and sustainability in one system, Solamander prioritises renewable energy sources over non renewable energy sources to ensure minimal energy wastage. The prioritisation of renewable energy sources like solar power reduces the energy costs associated with domestic hot water and other heating related utility bills.

REDUCE YOUR CARBON FOOTPRINT AND GET ONE STEP CLOSER TO A CARBON NEUTRAL HOME!

- The key component to the delivery and management of the energy in this system is a 'Hub' or 'Loop' where the water flows around in one direction and is diverted to the energy sources, storage facilities (tank and floor) and energy uses.
- Non-renewable energy sources can be prioritised to make effective use of the free energy first and the most expensive energy source last.
- The system can be easily configured to meet your particular requirements. New energy sources and uses can be readily added without re-plumbing the hub.

ENERGY SOURCES (RENEWABLE & NON-RENEWABLE)

RENEWABLE ENERGY SOURCES

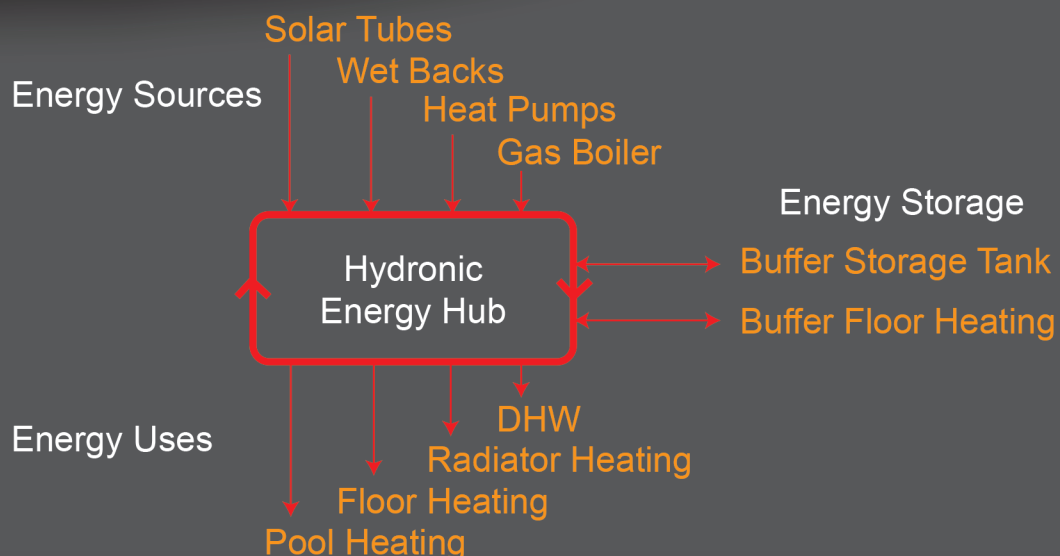
Solar Tubes – Solar panels/tubes that produce hot water.

Wet Backs – Utilises heat from a solid fuel burning appliance.

NON RENEWABLE ENERGY SOURCES

Heat Pumps – Highly efficient, providing heat energy from the outside air, water or the ground using a refrigeration cycle.

Gas Boilers – High efficiency, condensing boilers.



ENERGY USES

- Domestic Hot Water (DHW) - Delivered via a buffer storage tank with a heat exchange coil to transfer energy to the water in the tank.
- Hydronic Radiator Heating – Appropriate feed pipe system and zone controls required.
- Hydronic Floor Heating – Appropriate feed pipe and manifold systems with zone controls required. Our partner brands including Danfoss controls and Rehau pipes are recommended, however, other systems can be used provided they are configured appropriately.
- Pool/Spa Heating – Delivered via a titanium plate heat exchanger to the pool and/or spa. A heat dump (for energy that cannot be used or stored) is required for the system in the instance that a swimming pool is not available.

FEATURES & BENEFITS

SUSTAINABLE:

- Efficient use of renewables
- Incorporates domestic heating needs
- Lowers running costs
- Lowers carbon emissions

INTUITIVE:

This system is able to manage the energy sources to meet energy demanded on the system in a highly efficient manner via its unique algorithms. It automatically prioritises renewable energy sources over non-renewable sources and it efficiently organises the heat flow to give high temperature water to the Domestic Hot Water Tank and Radiators first.

CUSTOMISABLE:

The System can be configured in many different ways to meet your individual requirements.

INFORMATIVE:

Provides insight into how much energy is being saved.

- Logs run times for each component
- Captures data
- Downloads data onto USB drive for review and analysis

FUTURE PROOF:

Can be easily changed at a later date and is able to be used with any hydronic energy source. It can also be configured and modified over time to add additional sources and uses that were not initially set up within the scope of the system.

- No re-plumbing
- Add additional or new heat sources
- Add additional or new heat uses

INTEGRATED:

All components of the system are managed by the controller. The end user is able to change modes and set up heating times via a touch screen interface or via their home automation system. Please note that a home automation system is not, however, required.

SAFE:

Supplied with allowable settings and operating ranges to provide the installer and end user with the ability to optimise their system within safe operating parameters.

USER FRIENDLY:

The system was designed with the end user and installer in mind. The controller comes with a well-Hit, digital touch screen interface that offers superior usability and accurate control for optimum system performance and comfort. It enables the end user to easily configure and set up the system with a 'Help' button on each screen to guide them through the various setting options. The only thing required is to change the settings on the controller to indicate 'on' or 'off' in Winter Mode every year. Once configured, it's set and forget for the end user!

UNIQUE FEATURES

- Direct Action – All space heating in this system (radiator and floor heating) is achieved via direct action with energy coming directly from a heat pump or gas boiler rather than by indirect energy transfer. This direct action minimises energy losses and in the case where solar gain is available while heating is demanded, the system uses this free energy to pre-heat the boiler or heat pump, thereby reducing its energy consumption.
- Buffer Floor Heating – A designated floor area acts as a heat storage in a similar way to the buffer water tank. Once the DHW tank is full to its thermal capacity, excess renewable energy is delivered to this buffer floor heating area and stored there for ongoing heating needs.
- Optimal solar or wet back harvesting – The system uses special flow regulating valves that can deliver water at a high, pre-defined temperature from the solar panels or wet back. As the solar panels heat up, the water flow is increased through the panels maintaining a constant temperature of around 75-80°C* into the system. This means a steady flow of energy that always has a high utility value.
* Can be adjusted via the controller within set limits.
- Prioritisation of Heat Uses – The system prioritises the use of high temperature water for DHW & Radiator heating over hydronic floor which requires lower temperatures for effective operation.

THE HYDRONIC ENERGY HUB CONTROLLER

Energy Source 1	Home	12:00 am 45m away
Solar Panel	Modes	Set Time
Solar Collector 74.4	View	Sys Config
Solar Pump On	Settings	Export / Import
Solar Control Valve 0.0	Configuration	Version
Info Home 1/1	Help Home 1/1	

The Solamander Hydronic Energy Hub has a unique controller programming logic with these algorithms. This controller offers exceptional versatility and functionality of the entire system and each of its energy sources and uses.

The Controller enables the installer and end user to configure their system as they wish to meet their particular requirements. The one controller can readily handle a multitude of combinations!

INVESTMENT

At Devex Systems we pride ourselves on offering high quality, cost effective solutions for our customers. With the volatility in gas and electricity prices and longstanding upward trend in utility bills, we understand the importance of offering a solution that is affordable to the end user.

Solamander has been designed to offer significant energy savings through the prioritisation of renewable energy sources. This system has an attractive payback period with a lower upfront investment than most other integrated solar heating solutions on the market.

SOLAMANDER – ORIGIN

The name "Solamander" is a play on the word 'Salamander' and 'Solar'. The Salamander is an amphibian that looks like a lizard and is the only known vertebrate that directly generates energy from the sun. This direct action is a key feature of the Solamander Hydronic Energy Hub.

SERVICE & SUPPORT

Devex Systems can design, install and assemble all components of this system. We work closely with our partners to offer a complete and integrated system.



At Devex Systems, we excel at specialised heating, and cooling solutions for new and existing buildings in residential, commercial and industrial environments. We strive to provide superior comfort through high quality, sustainable solutions delivered with service excellence

For more information on the Solamander Hydronic Energy Hub including product and installation information or to schedule a system overview presentation at your location offered by one of our highly trained representatives, please contact us on 1800 636 091 or info@devexsystems.com.au.

Our Reputable, Long-Standing Partners:

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1800 636 091

info@devexsystems.com.au / www.devexsystems.com.au