Four Nominations Shortlisted!

The SHC Solar Award is given to an individual, company, or private/public institution that shows outstanding leadership or achievements in the field of solar heating and cooling and supports the work of the IEA SHC.

This year's SHC Solar Award will recognize a Solar Heating or Cooling project to reduce energy use and costs in social housing. The winner will be announced during EuroSun 2022 in Kassel, Germany.

The recipient of the 2022 Solar Award will be one of four finalists from Australia, France, Namibia, and South Africa. The finalists' projects may be very different, but all are effective examples of saving costs and energy for vulnerable occupants through solar heating and cooling technologies.

"My Home" – Perth, Australia

"My Home" houses demonstrate that high-quality construction, thermal comfort, and energy efficiency are achievable in compact, low-cost housing.

"My Home" is a philanthropic developer that brings together Government, Church, Private Sector, and Community Housing Providers to deliver the project using a Public Private Partnership model. One of their five projects is in North Fremantle. This project is building 18 affordable, long-term occupancy homes for older women who are experiencing homelessness. Fundamental to the house designs are comfortable, joyful, and refreshing living spaces. If someone is walking past the houses, they are seen as an attractive home and NOT as a place where homeless people live.

The houses complement the appearance of surrounding homes, albeit with a smaller footprint, so they fit into the neighborhood. The 32 m^2 house footprint includes bed, living, bathroom, and kitchen spaces plus a veranda, all of which support independent living. In addition, each site includes shared facilities – outdoor gathering spaces, storage, vegetable gardens, and car parking.

The houses are demountable and cost-efficient. By using lightweight prefabricated domestic construction and a 'flat pack' panel system, the houses can easily be moved to another site as needed. Thoughtful design of the homes, based on a contemporary aesthetic and rigorous design principles, and low maintenance with easy to clean and robust materials and fittings reduce long-term costs. A sense of "My Home" is essential as this will be the 'forever home' for some residents.

Each house is energy efficient – solar PV panels and passive solar (Passivhaus) design principles provide comfort to residents in a hot climate. Houses are also water efficient and include a rainwater tank supply. Plus, the base housing unit can be adapted to suit the needs of specific occupant groups, such as single parents with a child/children.

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GrandLyon Habitat – Lyon, Auvergne Rhône Alpes area, France

GrandLyon Habitat project shows the benefits of solar thermal installations and serves as an example for other social landlords.

GrandLyon Habitat (GLH) has a long history of social housing since its creation in 1920. Today, this organization is the leading social landlord in Lyon and manages more than 27,000 housing units. GrandLyon Habitat is a pioneer in sustainable development and provides economically disadvantaged people affordable housing.

GLH has equipped three residential sites, totaling 1,062 apartments, with large-scale solar thermal installations. The commissioning of the installations in the three residences was staggered between September 2018 and October 2019. The solar installations on these three residences total 895 m^2 of collectors and produced an average of 440 MWh in 2021, according to detailed monitoring.

GrandLyon Habitat's project to equip several of their residences with solar thermal energy, with the financial support of the "Fond Chaleur" of the ADEME, is reducing the gas consumption of 1,062 dwellings. In 2021, gas reductions were nearly 450 MWh. This replacement of fossil fuel with renewable energy reduces the energy bills of the inhabitants, which is significant given the sharp rise in energy costs projected for the future. In addition, the use of a remote monitoring system makes it possible to precisely quantify the gas savings achieved, check that the installations are working properly, and troubleshoot quickly, for example, to reduce the risk of damage to the installation due to freezing or overheating of the collectors.

Aussenkehr Social Housing Development – Aussenkehr, Namibia

Aussenkehr Social Housing Development project provides a simple, affordable, and sustainable housing option with homes built locally and equipped with solar technologies.

Aussenkehr is a settlement in southern Namibia on the north bank of the Orange River. It is one of the hottest and driest places in the country. A large-scale irrigation project, where water is taken from the Orange River, made it possible for people to settle here, and table grapes are now grown on more than 3,000 hectares of irrigated land. Up to 15,000 permanent and seasonal workers live in the vicinity of the settlement, of which most work at the grape farms. Most people stay in traditional reed huts, which do not have water, sanitary facilities, and electricity connections. To

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provide farmworkers with affordable yet sustainable and energy-efficient homes, ORVI, one of the Orange River Vineyards, developed a housing project to accommodate its employees. It comprises 58 houses made of precast concrete bricks, with pitched roofs and ceilings, all built during 2020. The houses all have potable water and an electricity connection.

To keep running costs as low as possible, the houses are equipped with solar thermosyphon systems for hot water preparation supplied and installed by Solsquare Energy (Pty) Ltd., a Namibian solar company. The hot water is used not only for showers but also for washing clothes and cooking.

This project not only significantly improved the living standards and hygiene conditions of the farm workers and their families but also demonstrated how simple and affordable houses can be built locally and equipped with sustainable solar technologies.

In addition to the enormous reduction in monthly electricity costs due to the use of solar energy, the majority of electricity in southern Africa is produced in old coal-fired power plants. These solar thermal systems will save approximately 120,000 kWh of electricity and avoid releasing 36 tons of CO_2 annually.

Melville Place Residential Development – Cape Town, South Africa

Melville Place Residential Development is an excellent example of how solar thermal can maximize the benefits of affordable, sustainable housing without compromising residents' quality of living.

Melville Place is a new residential development located in Ottery in the Southern Suburbs of Cape Town. The estate was developed with a strong focus on social and environmental sustainability. It was designed to provide low- and middle-income working residents with affordable yet modern housing.

The complex consists of three-story blocks with a total of 346 apartments. The system is distributed over the separate blocks and consists of evacuated tube collectors with a total area of 343 m^2 and 46,000 liters of hot water storage with backup from heat pumps.

The development was designed to incorporate water and energy-saving features. Melville is equipped with several features, such as a rainwater catchment and purification system as well as black water treatment, which allows the complex to operate without the need for municipal water. In addition, the complex plans to generate most of the electricity required on the premises, and a solar thermal system is fitted to provide hot water. The solar hot water system is estimated to produce 244.90 MWh of solar energy while preventing the production of 84,700 kg of CO_2 emissions annually.

Learn more about the SHC Solar Award at https://www.iea-shc.org/solar-award.