

Press release

Clean Drinking Water for Students in India

Phaesun installs water desalination plants in India as part of EU innovation project Revived Water

Memmingen, 18.11.2019

As part of the EU development and innovation project Revived Water, the Memmingen-based solar company Phaesun, together with nine other European project partners, is developing innovative desalination plants based on electrodialysis technology.

In November 2019, Phaesun installed two solar-powered pilot plants in the Indian region of Gujarat, which now provide clean drinking water from brackish water for a school and a temple.

Unlike conventional desalination technologies based on thermal technology or reverse osmosis, electrodialysis requires neither high temperatures nor high pressures. Electrodialysis is based on a membrane technology in which an electric current ensures that salt ions are passed through an ion exchange membrane, thus allowing the salt content to be significantly reduced without filtering other important minerals out of the water. Tobias Zwirner, Managing Director of Phaesun, explains: "The new technology requires little maintenance and due to its low energy needs, it is well suited for solar power supply. This makes it particularly suitable for applications in remote areas in developing countries without a power grid. This is exactly where Phaesun's expertise lies".

Within the framework of the Revived Water project, Phaesun is focusing on independent solar-powered systems that can produce up to 2000 litres of drinking water per day from salty water reservoirs. Phaesun is developing the solar power supply and testing pilot plants in Africa and Asia under real conditions. The first pilot plants were installed in East Africa in 2018 and 2019. Performance data was collected by a remote monitoring and control system and incorporated into further development.

In India, two plants of the next generation have now been put into operation. 1,300 secondary school pupils, monks and visitors to a Hindu temple will use the water as drinking water and for ritual ablutions. Until now, the salty water from the wells has mostly been used for those issues because bottled drinking water was too expensive. Dirk Gutzeit, Phaesun engineer, has installed the systems in India. He reports: "After intensive product development in the laboratory, it is now a great reward to see how the people in India enjoy the clean water."

The Revived Water project is now entering its final phase. Further pilot plants will be installed in Tanzania and Somaliland. The experience gained will flow into an end product which will be marketed from mid-2020.

Explanation of the fotos:

Pic 1: Phaesun engineer Gutzeit explains the Revived water desalination plant to Indian monks, Source: Phaesun

Pic 2: Solar power system for the desalination plant on the temple roof, Source: Phaesun

Pic 3: Students inspect Revived desalination plant, Source: Phaesun

Pic 4: Comic Revived water desalination system

About REvived Water

REvived water, a research and innovation project, funded under the EU's Horizon 2020 programme in the field of 'low-energy solutions for drinking water', brings together ten partners from six countries across Europe. This consortium will contribute to overcoming the drinking water challenge by establishing electro dialysis (ED) as the new standard for desalination of seawater and brackish water.

Revived water project started in May 2016 and has duration of 4 years. This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 685579.

About Phaesun GmbH

Phaesun has been specialising in the sale, service and installation of Off-Grid photovoltaic and wind power systems since the foundation in 2001. As one of the world's leading system integrators of Off-Grid energy systems, Phaesun offers products of all reputable manufacturers of this trade. International project management, purposeful training courses for customers and technical support complete the range of services offered.

The headquarters of Phaesun GmbH are based in Memmingen/Germany. The Phaesun Group now has subsidiaries and sales offices in Europe, Africa and Latin America. Therefore Phaesun contributes to the sustainable electricity supply in the target regions of Europe, Africa, Latin America and the Middle East.

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