

Solar pumping stations improve lives in remote Kashmir Valley



Hujjat Qayoom, a resident in Pulwama in the remote Kashmir Valley, India, says "Things are easier now. We can spend more time with our children."

In the remote Kashmir Valley in northern India, locals had to spend hours a day pumping water by hand. An erratic power supply discouraged installing water distribution systems with electric pumps.

Grundfos and a local partner provided a solar pumping system that gives a sustainable and reliable water supply. The installation of 36 such stations spread across the valley has ensured fast, uninterrupted water supply to 50,000 residents. Now, fetching water only takes minutes instead of hours.

The situation

The remote Kashmir Valley in Jammu & Kashmir, northern India, may be beautiful with its mountains, rivers, glaciers and green fields. But potable water is not readily available. Local women spent hours a day fetching water for their daily needs. Fresh water is available in underground wells, but an erratic power supply has discouraged authorities to install water distribution systems with electric pumps.

"Conditions during winter are extremely difficult here," says Mr. Aadil Akbar Mir, a local resident in Kasnaad. Not only are temperatures and snowfall extreme. "We face power shortages. Sometimes for as long as four to five days." Another resident, Mrs. Hujjat Qayoom, says that initially, the locals used hand pumps to fill their water containers. "Our hands ached. We were tired of doing this," she says, adding



Villagers spent sometimes hours a day fetching water from local wells operated by hand pumps in the Kashmir Valley in northern India.

that the process could sometimes take hours, due to long lines and waiting at the hand pumps.

They needed a solution that could work off-grid and withstand different weather conditions. "It should be highly reliable," says Freoz Khan Mohammed Jaffer, Regional Market Development Manager of Grundfos India-Middle East and Africa. "Getting a service person to fix any issues here takes a long time and that would for sure interrupt the water supply to these communities."

The solution

Grundfos and local channel partner M/S SIAB Surgiments designed a solar pumping system that works off-grid. It can ensure a consistent water supply in any climatic condition, says M/S SIAB Surgiments' Managing Partner Mr. Zubair Majid.

"The solar pumping unit has three major components," he says: a Grundfos groundwater SQFlex pump, a storage tank and four photovoltaic (PV) solar panels. "As the place is very remote and service visits are difficult, the project is designed so that human interference is very low. It is all automated. No switching on and off of the system. There are no complex settings. Also, installation is very easy. It's a plug and play system."

The government of Jammu & Kashmir – and specifically the Ground Water Division of Jal Shakti – rolled out a community water supply project to install such solar pumping units across the Kashmir Valley. The objective was to provide reliable drinking water for the 50 villages of Kashmir, which encompasses about 50,000 people.



A solar pumping station in Pulwama in the Kashmir Valley, India, has saved local residents hours a day from using hand-powered water pumps.

Grundfos supplied:

For the solar pumping stations, Grundfos supplied its SQFlex 2.5-2 groundwater pump along with a GL 419 PC controller. For more information on sustainable, off-grid groundwater pumping solutions.



The outcome

By December 2020, M/S SIAB Surgiments and Grundfos had installed 36 solar pumping stations in the Kashmir Valley. The effect was immediate.

“It used to take one hour to fetch water. Now with the new solar pump we are back in 10 minutes. We can spend more time with our children.”

Hujjat Qayoom, Resident, Pulwama, Jammu & Kashmir, India

“Previously it took us one hour when we fetched water,” says Mrs. Hujjat Qayoom. “But after the new solar pump, we are back after 10 minutes. We save time and we reach home



Syed Irfan Bukhari and Zubair Majid of installation partner M/S SIAB Surgiments at one of 36 solar pumping stations at Kasnaad.



Local children at one of the solar powered water pump systems in Kashmir Valley.

again quickly. Though the water does not reach our homes directly, things are definitely easier now. Previously we had to wait our turn. Now we can fill one, two, three water pots at a time. And we are able to spend extra time with our children.”

Mr. Mohammad Shareef Gujjar, Village Head of Kasnad Khiram, says, “It is my dream to make water available at all times for the community. When I see happiness on my people’s faces, I feel satisfied.”

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