Energy-starved Pakistan eyes solar power

March 27 2012, by Masroor Gilani

Pakistani company employees arrange solar panels for a marketing demonstration in a park in the capital Islamabad. Pakistanis are increasingly realising that year-round sun may be a quick and cheap answer to an enormous energy crisis

From mosques, to homes and streets, Pakistanis are increasingly seeing the light and realising that year-round sun may be a cheap if partial answer to an enormous energy crisis.

"It's the best thing I bought this winter," says Sardar Azam, a former

civil servant retired to a river-side home in Pakistani-administered Kashmir, showing off his water-heating solar geyser installed on the terrace.

"The biggest advantage is that you spend money once and it runs on sunlight which is free," Azam added.

Pakistan needs to produce 16,000 megawatts of electricity a day but only manages 13,000 megawatts, according to the Pakistan Electric Power Company.

The shortfall means that millions endure electricity cuts for up to 16 hours a day, leaving them freezing in winter and sweltering in summer while hitting industry hard, exacerbating a slow-burn recession.

Voters say it is their biggest single concern, secondary to the war against Al-Qaeda and the Taliban, and so the government has been increasingly vocal about redressing the problem as it eyes elections within a year.

"I think all our friends are encouraged to understand the real energy crisis that is in Pakistan. We can't afford to be selective of where we receive our energy supply from," Foreign Minister Hina Rabbani Khar said this month.

File photo of people protesting against electricity shortages in Lahore on March 20. Despite a wealth of natural resources, Pakistan produces only 80 percent of its electricity needs and even some of that comes from imported fuel

At the time, she was referring to Pakistan's determination to build a pipeline and import gas from Iran, regardless of US threats of sanctions, but the message was clear: on the energy front, Pakistan needs any help it can get.

Arif Allaudin, who heads the Alternate Energy Development Board, would like to see more of that help coming from renewable sources, saying there was a 2.4 million megawatt potential for solar energy alone in Pakistan.

Niaz Ahmed Kathia, director of private company Alternate Energy Systems, said abundant and free sunshine was the answer to Pakistan's energy woes.

"Energy is our biggest issue, more than terrorism, and if we replace our one million tubewell pumps with solar ones, we can save 7,000 megawatts," Kathia told AFP at the demonstration of a solar well in the capital.

The majority of Pakistan's tubewell pumps, which pump out underground water, run on the strained national grid or on diesel power.

There is no pretence that solar power is the only answer, but this month the prime minister ordered the government to provide solar electricity in remote villages far from the national grid.

The government described renewable energy as the "investor's choice" and said the private sector has offered to produce 1,500 megawatts a day.

In the mountains of Kashmir there is no gas pipeline and in the cold winter months electricity bills are prohibitively expensive.

Former civil servant Sardar Azam (R) proudly shows off a solar geyser at his riverside home in Pakistani-administered Kashmir

In Azam's hometown of Muzaffarabad, the capital of Pakistani-controlled Kashmir, solar panels light up a public park and mosques.

Solar street lights are also being installed slowly in cities such as Rawalpindi, Lahore and Karachi.

Pakistan's first on-grid solar power station, capable of producing 178.9 kilowatts, began test operations in Islamabad this month with a grant of $5.4 million from the Japan International Cooperation Agency.

"It is a seed for thousands more solar power plants," Senator Rukhsana Zuberi, a former chairperson of the Pakistan Engineering Council told AFP.

This winter Pakistan suffered a two billion cubic feet a day shortage of natural gas -- usually the mainstay of millions delivered to homes and industry via pipelines -- sparking protests and forcing factories to lay off labourers.

The trouble is remedial plans are only at an embryonic stage.

"We plan to promote the use of solar geysers as the gas shortage is becoming acute," petroleum and natural resources minister Asim Hussain said.

"The gas companies would install solar water heaters at consumer premises and deduct the amount in installments in the gas bills," he added.

Power generated during sunlight hours can be stored in deep cycle lead acid batteries to power lights, radios, televisions and fans at night.

Norwegian company Telenor says it has set up 50 solar-powered cell sites, mostly in remote areas, capable of reducing 2.5 tonnes of carbon dioxide per site by saving over 940 litres of diesel a month.

Traders say demand has certainly risen. A 170-litre (37-gallon) capacity solar geyser starts from 27,000 rupees ($300) and a 218-litre version for 32,000 rupees as a one-time cost.

"Solar geysers can reduce gas bills considerably. The technology is not only environment friendly but also pocket friendly," said vendor Shakil Ahmed.