Refinancing sustainable energy projects in Bangladesh

The funding available for sustainable energy projects falls far short of the requirement. VISUAL: STAR

FROM PAGE 24

programme but that again was due to the poor supply of electricity in the rural areas. Rural people felt that SHS was their only hope to get electricity for a long time to come. The quick 100 percent rural electrification has been a great boon for the rural people, but that also meant that more than 6 million SHS are now abandoned. IDCOL's programmes of rooftop solar, solar irrigation and mini-grids have seen limited success.

Since the promulgation of the Renewable Energy Policy in 2008, in the last 15 years solar has reached only 970 MW, which includes 370 MW of SHS, now lying idle. The on-grid solar PV achievement is only 602 MW, which is extremely low by any standard. Soon after the start of the Ukraine-Russia crisis, all experts advised the government to increase renewable energy penetration, but the slow pace of solar power plant addition has disheartened all. The government keeps on reassuring us that nearly 10,000 MW of proposals are on the table, but it is incomprehensible why these are not taking off despite the fact the government is offering very favourable tariff.

The fragmented nature of land and the propensity to utilise every inch of land for agriculture means that it is difficult to get a contiguous piece of land for a project beyond 50 MW. If the government permitted 25 percent of the land for a single solar project to be agricultural, many more projects could be financed. Just one percent of the total agricultural land of Bangladesh can generate 50,000 MW of power.

Sustainable financing for green projects started in 2009 with the Bangladesh Bank creating a revolving fund of Tk 200 crore, which has been increased to Tk 400 crore. Since then, policies, guidelines and list of products that can be financed have been added. In addition to the financing available from the Bangladesh Bank, there are several bilateral and multilateral funds available for investors of green projects. The table below shows the funds available for financing green projects. Considering that the Norwegian fund of $1 billion will be divided among eight countries, the total available funding for Bangladesh is less than $1 billion. Moreover, this funding is for all types of sustainable projects spread over 3-5 years.

Data from the Sustainable Finance Department of the Bangladesh Bank clearly shows that the bulk of sustainable finance in FY22 went to green buildings, and sustainable energy funding constitute only 26 percent of the total refinancing activities in Bangladesh. Other activities have received funding deal more with sustainable environmental management rather than sustainable energy.

The limitation of adequate funding or financing available for sustainable energy is not the only barrier in its wider uptake. Bangladesh still offers very favourable tariffs for utility scale solar at Tk 10.7/kWh. Even though the devaluation of the taka against the dollar has eroded most of the incentive, the existing tariff is still conducive to investment. Since the programme was started nearly a decade back, most foreign investors have complained about land availability. Many reputed international investors have backed away after years of effort to procure land. Being a densely populated country with high requirement for agricultural land, the scarcity of land is obvious. The problems arising out of high land requirement for renewable energy projects especially solar PV is well recognised. Haley Zaremba in an article for Oilprice.com titled "Navigating the Land Crunch in Renewable Energy Expansion", mentions the following three issues:

i) Utility-scale solar and wind farms demand large land areas, creating land-use challenges as undeveloped land becomes scarce.

ii) To meet climate goals, massive amounts of land must be dedicated to renewable energy projects, raising concerns about competing land uses for agriculture and wildlife preservation.

iii) Balancing ecological, energy, and food needs is crucial, with mixed land-use solutions and technological advancements as potential paths forward.

As may be appreciated all these three issues are relevant and important for renewable energy development in Bangladesh. Even though there are studies that have reported unutilised or "khas" land, these assertions are not rooted in firm studies. For example, reports have mentioned usable land on both sides of many rivers for solar PV power plants. Theoretically this may be correct, but the actual usability has to be confirmed through rigorous studies of soil condition, present use by local people, vulnerability to flooding, and security risks. The principal reason behind the large success of the Indian solar PV programme is the availability of unutilised land. Indian solar PV programme is oversubscribed even at tariffs half those in Bangladesh.

For reasons of food security, the government does not permit renewable energy projects on agricultural land. While one can understand the rationale behind this restriction, it is unduly restrictive. Wherever project developers try to procure land for solar parks, they encounter agricultural land. The fragmented nature of land and the propensity to utilise every inch of land for agriculture means that it is difficult to get a contiguous piece of land for a project beyond 50 MW. If the government permitted 25 percent of the land for a single solar project to be agricultural, many more projects could be financed. Just one percent of the total agricultural land of Bangladesh can generate 50,000 MW of power. The benefit to the nation is five times more when land is used for energy compared to food. The loss of food crops can easily be compensated by preventing food spoilage. Also, land encroachment due to various reasons is reducing agricultural land every year. Since we need to import both food and energy, devoting land for energy will have a beneficial impact on foreign currency reserves.

The third point made by Haley can circumvent the land availability issue. Agrivoltaics which is the simultaneous use of the land for crops and solar PV can truly revolutionise the harnessing of renewable energy.

SEE PAGE 26