WE can be proud that Bangladesh has a world class Solar PV technology dissemination model that has effectively demonstrated that solar energy applications can be scaled up massively and rapidly to provide an affordable and climate friendly energy option for the rural people.

Over 400,000 Solar Home Systems (SHS) have been installed, benefiting over 4 million rural people, with more than 20,000 systems installed per month, and this number will double and triple within the next 2-3 years. We have the capacity to install 1 million more systems by 2012.

A Solar Home System can provide uninterrupted fuel-free supply for 25 years with negligible maintenance cost (battery replacement cost after 5 years). Though the initial installation cost is high, the tradeoff is the large savings afforded to the economy's power grid since each household with a PV Solar Home System is actually the owner of an individual PV power plant.

At the current growth rate of SHSs, we expect that power generated by the photovoltaic cells will exceed 300 MW within the next few years and 700 MW by 2015. It is high time to seriously consider the potential of solar and other renewable energy technologies in Bangladesh.

Simply put, we are over-dependent on gas. We once thought we were floating on gas, but no additional sites have been identified. The result has been recurrent power failure and no dependable energy source to fuel power plants.

The daily electricity output totals around 3,800 MW against the demand of 6,000 MW, leaving a supply crunch of 2,200 MW. The demand for power could well rise to 20,000 MW by 2020. Bangladesh has to find alternatives as quickly as possible. But what are these alternatives?

According to energy experts, coal costs up to (US) 5 to 6 cents per kilowatt-hour. Nuclear power also costs the same, while solar power costs around 30 to 35 cents. Therefore, many policy makers in Bangladesh are advocating nuclear and coal power for Bangladesh on the basis of cost alone.

However, solar and other renewables can play a critical role in our energy mix. We are blessed with lots of sunshine and this increases the efficiency of Solar PV technology. Not only is the price of solar panels coming down in the world market, their efficiency is also increasing, meaning there will be grid parity within a few years. The same is true for Bangladesh. When we started our Solar PV Program in 1996, only a few could afford a system. Now, however, middle income and an increasing number of low-income groups can afford a system.

Bangladesh has the potential to become a middle-income country by 2025. Poverty has been reduced: new business opportunities, created both in Bangladesh and outside, and mechanisation and new technologies, have reached the rural heartland. Our resilience against the global financial meltdown has won international recognition.

However, our achievements and potential can be crippled if we cannot solve our energy crisis, which is making our lives unbearable. We also have to protect our people against threats related to climate change, such as cyclones, sea level rise, increased salinity, drought, drop in underground water, etc.

I am a passionate believer in solar energy for its potential to take Bangladesh forward, and make it one of the first "Solar Nations" in the world, with half of our people enjoying the benefit of renewable energy. Is this possible? Yes, I believe so. Let me talk about the potential of renewable energy and what we can do to realise its full potential.

A Bangladeshi Success Story

Bangladesh has one of the largest and fastest growing Solar PV technology program in the world with more than 15 rural based organisations working all over the country: GTZ, KFW, USAID, Asian Development Bank, Islamic Development and all major development partners are helping to promote solar and other renewables in Bangladesh.

It was not always like this. When I started promoting SHS in 1996, most people thought it was a utopian dream and an unachievable target. The challenges were huge. Despite the initial skepticism, I was committed to take renewable energy technology to the rural people.

I felt there would no meaningful rural development with more than 80 per cent of the rural people living in darkness accompanied by kerosene fumes. We had to design practical solutions that touched at least three components of sustainability: social, economic and environmental.

I started with SHS because Bangladesh has plenty of sunshine, and Solar PV technology is one of the best options for decentralised rural electrification, unlike grid electricity, which is expensive and unwieldy.