**Our energy strategy - Part I**

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The Glasgow Climate Conference has ended with a renewed commitment of 200 nations to climate change goals, among scepticism and criticism by activists of doing too little. The promises of assisting developing nations with the required climate-related financing remain elusive.

A major issue that concerns us is that the ‘phasing out’ of coal requirement has been softened to ‘phasing down’ in the final draft of the agreement, although nearly 40 countries have announced to phase out coal. The question is: what impact will the latest agreement have on our coal (Thar) policy and on the earlier announcement made by China that it will not finance coal-based projects abroad anymore? It may be too early to comment with confidence on the issue, but it appears that the Glasgow agreement does provide indicators on transitional and long-term directions.

Pakistan is among those countries which are severely vulnerable to the effects of climate change, and it is in our national interest to contribute and cooperate with worldwide mitigation and control activities, although our contribution to the problem is less than one percent.

All fossil energy sources like oil, gas and coal generate carbon emissions. Emissions from most of the sectors, except agriculture, can be reduced or controlled. In our country, the bulk of these emissions is from energy generation and consumption. Energy in one form or the other is required in all sectors – agriculture, industry, domestic, transportation. Global temperatures soar due to the emission of greenhouse gases, mostly carbon dioxide. The world wants to reduce carbon emissions to zero by 2050. The EU and the US have agreed to the target of net-zero carbon emission by 2050, China by 2060, and India by 2070.

Non-carbon energy choices are renewable energy like, solar, wind, hydel (water dams) and hydrogen. Green hydrogen is a new entrant in the energy scene and has acquired quite some prominence lately. The production and use of grey hydrogen – produced from gas and coal – was started some time ago, and green hydrogen will be produced by electrolysis of water. Grey hydrogen is mostly consumed by the oil-refining sector and in ammonia and fertiliser production; it is mostly produced on site.

While net-zero targets are to be achieved gradually until 2070, a difficult situation has emerged in the meantime; the availability of fossil fuels like oil, gas and coal has come down but their prices have increased. LNG prices have quadrupled; oil and coal prices have increased by 33 percent and 100 percent respectively. The transitional period and process have become difficult for poor and underdeveloped countries. The present has become so hard and difficult that thinking about the future seems to be meaningless. Yet to avoid the repetition of the present conditions in the future, one has to think and plan for the future.

Pakistan has announced to not install coal-based power plants anymore. It will complete the ones already in the pipeline. However, in a recent environment conference held in Saudi Arabia, Prime Minister Imran Khan excluded ‘coal gasification’ from the coal ban agenda in his speech. Almost all Western countries have announced to stop the installation of new coal-based power plants. The Chinese president has also announced that China will not finance or install coal-based power plants. However, China has not closed the coal option for itself. It is highly improbable that any other country would be available to install coal-based power plants in Pakistan. All hopes were tied to China under CPEC.

Gas had been touted as a desirable transition fuel by the world community. While the US and Russia are not affected by the gas crisis, countries dependent on imported gas are suffering under higher prices. If these conditions continue for long, it would be difficult for poor countries like Pakistan to implement and continue with the coal ban announcements. In fact, it may have to redouble its efforts to indigenise its energy sources irrespective of its carbon impact, at least in the short to medium run. The Glasgow agreement has provided an opportunity by softening its stand on coal, although it may be revised next year.

Pakistan’s economy and social life are greatly dependent on gas. Its local gas resources are dwindling consistently and are projected to be exhausted within a decade. Its effects are already visible. The prospects of finding new oil and gas resources do not appear to be bright. There has been no major gas discovery of one trillion cubic feet (tcf) or more in the last many decades.

Many foreign oil companies have left Pakistan, and there are little chances of attracting any major party in the near future. There were some prospects in the offshore play, but a recent drilling effort by Exxon Mobil did not bear fruit. Although one should not lose hope in a sector like oil and gas, heavy reliance on local oil and gas is risky.

High LNG prices cannot be sustained by Pakistan for long. On the other hand, Pakistan cannot afford to do without gas. Households use gas-fired equipment for cooking and bathing purposes. There are more than 10 million families who depend on gas consumption, and more families are waiting for gas connections. Politically, it would be difficult to deny new gas connections and discontinue or reduce existing gas supplies.

Furthermore, there is the fertiliser sector on which the entire agriculture sector depends, and the industrial sector whose exports bring foreign exchange and give employment. There are some opportunities for partial shifting to electricity of which there is purported surplus. But all gas users cannot shift away.

To be continued

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