

Loadshedding in the winter

When the PML-N won the 2013 elections, our country had debilitating power and gas shortages. PML-N leaders believed that the party won the elections on the back on Mian Nawaz Sharif's general popularity and the transformative work Shehbaz Sharif had done in Punjab during the previous five years. But also that unless they made good on the central promise of their campaign – to rid the country of loadshedding – they would have no chance in the next elections. Hence from Day One, the PML-N went to work on setting up power plants.

At the start of the PML-N's term in office, there was a shortage of about 7000 MW of generation capacity. A lot of power plants had also outlived their useful economic life and were running very inefficiently on furnace oil and diesel. Oil was still around \$100 per barrel and LNG was about 18 percent of the price of oil price. At that point, then, the only fuel that made economic sense was coal, especially indigenous Thar coal.

But since taking Thar coal out of the ground required four years and setting up power plants, even if done simultaneously, perhaps another year, the PML-N government decided on a strategy of first putting up some plants on imported coal and then mostly shifting to local coal once enough coal had been mined.

However, two fortunate things happened as the PML-N started work on the power sector. First, the price of oil went down; and second, and more importantly, the price of LNG went down from 18 percent to about 14 percent of the price of oil. This meant that electric power generated from gas (regasified from imported LNG) became competitive with power derived from coal plants.

This allowed the government to alter its strategy and also induct LNG-based power plants into the system. The government decided to set up three LNG-based power plants of 1200 MW each (with the government's own money; two owned by the federal and one by the Punjab governments) and two imported coal fired plants of 1320 MW each (as part of CPEC). In addition, it decided to complete the Neelum-Jhelum hydro power project and the fourth extension to the Tarbela Dam power plant.

Whereas Shehbaz Sharif and his team were focused on the three LNG-fired plants and one coal plant being set up in Punjab, Khawaja Asif, the Ministry of Water and Power, Wapda and the NTDC looked after the other thermal, wind and hydel projects, including ensuring that we could transmit power out of the new projects.

Shahid Khaqan Abbasi and the Ministry of Petroleum were given the responsibility of setting up LNG import terminals and for setting up a pipeline of more than 1200 kms to convey the regasified LNG up country.

Somehow all the pieces of the puzzle fit together and with great relief the government announced in November 2017 that loadshedding had ended in Pakistan. This was Nawaz Sharif's signature achievement during the PML-N's term in office.

When summer came, Pakistan was able to produce about 21000 MW of power and even during the peak Ramazan demand of 22000 MW we avoided any loadshedding. (We did shed load, but only in areas where more than 50 percent of the bills went un-recovered).

And because we were importing LNG we were also able to mostly mitigate the huge shortage of gas in the winters, especially in Punjab and Khyber Pakhtunkhwa (Sindh and Balochistan didn't experience much shortage as it is). One trick we used was to sell some LNG as domestic gas during the winters and sell domestic gas as LNG during summers to smooth out supply throughout the year. This allowed both the industry and domestic sectors to have gas supply all year round.

But today, in the middle of January, when the winter is upon us and demand is low there is power shortage. Is this due to a shortage of power plant capacity, or lack of transmission capability or some management issue? After looking at the PTI government's stewardship of our economy for the last five months it wouldn't surprise readers to know that the current shortage of gas and, especially, power is just a management issue.

The government miscalculated demand for LNG and decided to not order enough LNG – even though we have two terminals that are contracted to regasify 1.2 billion cubic feet of gas every day. As a result, the three most efficient power plants in the world (yes the world; they convert 61 percent of energy in gas to electric power and produce power at about seven cents per kwh) are running at half capacity. The next four most efficient power plants (they convert about 45 percent of energy in gas to electricity) that were set up in Punjab during General Musharraf's time are completely shut down.

And since there isn't enough LNG in the system, for the first time we even saw large gas shortages in Karachi, where in previous winter months some LNG was sold as domestic gas and there was hardly any shortage.

But that's not all. Because all these gas fired plants are shut, and we have to have power, the government is running vastly inefficient furnace oil plants (which on average convert less than 35 percent of energy in oil into power and produce power at 13 cents per kWh). But some people make a lot of money when generation plants are using furnace oil, and as the PTI government is now hopefully learning, tackling these vested interests is not always easy.

Thus the main reason for the power and gas shortage this winter is the government's failure to import sufficient LNG. There is some bad luck too; many of the furnace oil plants running now are in the middle of the country and during the winter fog some transmission cables get tripped. This is not allowing the system to move all the power it can generate in the middle and south of the country to the more northern regions. As a result, the Lahore and Faisalabad regions are experiencing quite severe loadshedding.

The LNG plants set up by the PML- were intentionally located near the north-central load regions to ease the transmission burden. So, if they were running at full capacity, even the tripping that limits the ability to move power from the centre to the north wouldn't have affected the power supply.

The only way out of this mess of course is for the government to order sufficient quantity of LNG to run the efficient power plants and supply a little excess LNG as domestic gas, and make up the difference during summertime when demand for gas is low.

You don't need to be a rocket scientist to figure this out. And now – after five months of Inspector Clouseau-like PTI governance – not even their most ardent supporters will mistake PTI leaders for rocket scientists. But a basic understanding of how to manage supply and demand of the power and gas sectors is something this nation should reasonably expect from those who wish to govern it. This is why I hope the PTI doesn't falter again during the coming summer and winter months.

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