



Government can increase energy supply immediately

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In his recent news conference, the Minister for Water and Power referred to a number of causes for power shortage in the country. This Institute largely agrees with his summary of issues related to a sector for which he has been in charge of for over a year. We welcome also the candour with which he spoke on a subject that has caused so much suffering for all Pakistanis.

The Minister listed the causes and his government's solution for power shortage:

• Causes

- Increasing in circular debt because of failure to curb power theft
- The power sector did not receive the 114 mmcf of additional gas that his ministry had sought. In fact, the sector had to give up 50 mmcf for domestic consumers.
- Inability to recover billed amounts from consumers
- Decline in hydro power because of water shortage
- Decrepit secondary transmission lines

• Solution

- Increase in generation capacity by six to seven thousand MWs in three years
- Appeal to consumers to not waste energy
- Short medium and long term government plans to end load shedding

A more damning critique of his government's stewardship of the power sector is not possible. We will explain soon. IPR clarifies that in absence of a transcript of the conference, it bases this fact sheet on reports in the press¹. Let us take his reported arguments one by one.

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Increase in Circular Debt

The increase in debt was bound to happen because it is inherent in government policy. Circular debt clogs the system as it deprives cash flow to all players at each stage of the supply chain. Short of working capital, their operations scale down. Government policy and management has much to do with it. At one end of the chain, there is theft of power and under recovery of bills by DISCOs, which translate into a loss of 260 billion rupees. This loss far exceeds that from tariff differential. Loss in revenue affects cash flows and hobbles the system. In addition, increased reliance on furnace oil by 14% this year (see next bullet) has increased cost of electricity and consequently the subsidy. Increased reliance on furnace oil literally adds fuel to the fire of circular debt. Government's entire focus on power generation as the solution to the energy crisis is the third contributing factor. Each unit of power carries a subsidy. The loss from theft and under recovery is in addition. Incremental power will only add to required subsidy. While increasing generation capacity, government must also fix the broken governance system and revisit gas use policy. Else, new capacity may also likely suffer the impediments that present power generation faces. It must also examine its policy of tariff subsidy and ensure that budget provision accurately reflects the needed amount.

In his meet-the-press, the minister said that debt stands at 285 billion. We wonder if the government coordinates policy at all. The 2014-15 budget provides just 350 billion rupees for power subsidy. With more than eleven months to go, we fear that actual need during the year would be close to 600 billion rupees. This amount is to clear the circular debt stock and its buildup during the year. If government doesn't do so energy shortage will continue.

One risky development is the finance ministry's direction to PSO and some others to borrow from the banks. This is a case of long-term sustainability compromised for short-term expediency. It will put at risk profitable companies, but not help in oiling the system. There is no option but for government to retire circular debt and give up the artifice of controlled fiscal deficit. Government performance creates circular debt. It must own it and not look away.

Shortage of gas for the power sector

An IPR brief issued in May, before summer began in full earnest, showed that in a year of extreme shortage, allocation of gas for the power sector had declined by almost 20% between 2012-13 and 2013-14. There was an equivalent increase in supply of gas to a few selected fertilizer companies. As government decides use of gas, we had appealed to them to restore it for the power sector to alleviate suffering of the people. IPR estimated the economic cost of diverting gas from the power sector to be 6,700 USD per mscfd. The minister's estimate of diverted gas of 164 mscfd means a loss of 1.1 million USD per day or about 400 million USD per year. Of course, unlike power, fertilizer is easily tradable. We are sure that a few fertilizer manufacturers did not influence this decision.

Power theft and under recovery of bills

Theft and under recovery of bills make investment in the power sector unsustainable. Sale proceeds from households, business, and public sector consumers generate cash flows that facilitate the generation, transmission, and distribution companies to operate. The role of DISCOs is most important here. Large-scale power theft is not possible without knowledge about the culprits. Similarly, bill recovery is entirely for them to ensure. The scale of the two together defies belief. Let us look at some of the numbers.

Energy bills are in units of power consumed, usually kilowatt-hours. In 2013, NTDC purchased 98,342 GWh for transmission to DISCOs. Of this quantity, units billed by DISCOs were 75,926 GWh. Some of the loss is for technical reasons. We estimate that units billed should have been 90,000 GWh. This difference of over 14,000 GWh (90,000 less 75,926) last year is the power theft that the minister mentioned. We calculate that 14000 GWh amounts to 156 billion rupees lost from power theft alone. In addition, DISCOs recover less than the billed amount. This under recovery was 95 billion rupees last year, which means a total loss of over 260 billion rupees. Although arrears from the public sector find mention in the press, private sector also owed more than 260 billion (the similarity of amounts is coincidental) by end 2013ⁱⁱ. Annual arrears from private consumers have increased yearly from 10 billion in 2008 to 63 billion in 2013. There is no rationale for recovery of less than billed amount from private consumers.

As the minister in charge of DISCOs, we assume that he knows why this happens. It would help if he told the press how he plans to address the deep-set governance issue that lies at the heart of the country's power crisis.

Decline in hydropower production

The ministry that he heads manages water resources in the country as well as power. Although IRSA allocates water in accordance to a formula agreed among provinces, water for power is still available for agriculture. Perhaps the news reports did not carry his full explanation. Perhaps he alluded to low rainfall or late snow melting. It is hard to see why an agreed mechanism among governments was not possible on an issue of national urgency.

Decrepit secondary transmission lines

Perhaps the minister's real reference was to an inefficient thermal power sector that the government still operates. Since the private power policy of twenty years ago, public sector generation and transmission have suffered for want of investment. Effectively, government placed a hold on public investment for thermal power as the sector was to be privatized. It is difficult to privatize a sector that is unsustainable. In any case, there was no serious effort made to privatize transmission and DISCOs. Public sector thermal power thus went in to disrepair because government hesitated to invest in facilities that awaited privatization. Consequently, plants in the public sector produce far less power than their capacity and transmission is faulty and often in need of repair. This is a policy issue and lies in the government's domain and one that it must address. Public sector investment in power is far below its needs.

We now turn to solutions. The government's main solution to the power crisis is that more capacity will come on stream in three years. This is the policy equivalent of the 'cheque is in the mail', that is if public hand wringing can pass for policy. The government's advice that consumers (of gas) not waste energy is too frivolous to take seriously, especially in the summer when households use gas for cooking. Use of CNGs in cars is an issue, but the government has not discussed it lately. It is not as though the consumer faces a problem of plenty of energy. Also, news reports do not say what government's short, medium, and long-term plans are.

What should the government do?

To begin with, government must reconsider its approach to energy policy. Currently, the policy places too much emphasis on generation and not enough thought on why there is shortage in the first place.

In addition to generation capacity, power shortage exists for three reasons:

1. Unsustainable sector

In its present structure, the sector is financially unsustainable. The system does not recover the cost for generation, transmission, and delivery of power.

2. Inefficient transmission and production of thermal power in the public sector

A large part of the system is inefficient. O&M backlog and aging equipment in GENCOs means they produce electricity way below capacity. Transmission has always been under invested. Both suffer from policy issues of who should invest.

3. Wrong priorities

Government has the wrong priorities. This is seen in high gas allocation to fertilizer at the expense of power, major public investment in roads (of 116 billion) and not enough in revamping decrepit generating plants or transmission lines (96 billion, some of it off-budget,

for projects worth 700 billion). Clearly, energy projects have low priority and there is no urgency in addressing energy shortage.

Recommendations

- 1.** Take immediate action to improve billing and recoveries by DISCOs. Improved cash flows through the system will enhance power production and reduce shortage. It will make future investment feasible. This situation can be improved through administrative action, better management practices, and accountability of officials running DISCOs. This is entirely in the government's domain. The combined loss from power theft and under recovery has a deleterious effect on the sector. It results in high tariff and an ever-increasing circular debt. This in turn leads to below capacity generation. Instead of improvements, performance of DISCOs has worsened in the last year as recovery of bills fell even in the well performing units.
- 2.** Begin liquidating circular debt.
- 3.** Improve gas supply to power producers, prioritizing the more efficient IPPs. ECC makes gas usage decisions. They must turn their eyes to the urgency on hand.
- 4.** Begin accelerated public investment to improve GENCOs efficiency and invest in power transmission even at the expense of road projects. Ensure transparency and accountability in approving contracts.

If followed, the first three recommendations will increase power supply immediately. The last recommendation should make a difference within a year or so. In its brief of May 2014, IPR estimated that, taking all constraints into account, the country produced 38% electricity below potential in 2013. Our research shows without doubt that government can take immediate action to ease power shortage in the country. Power shortage has caused extreme suffering for the people and exacts a high cost on the economy. The present state of the power sector is potentially destabilizing for the country. The time to act is now.

ⁱ 'Asif Invokes God's help over power crisis', lead story Dawn 15 July 2014

ⁱⁱ State of Industry Report 2013, National Electric Power Regulatory Authority