

Perils of Power Purchase: Electricity Imports in the Changing Milieu

*Irfan Shahzad and Waqar-un-Nisa**

Abstract

[In an attempt to mitigate pressing power shortages, Pakistan is pursuing proposals and projects aimed at import of electricity from CARs, India and other SAARC member states, Iran and China. However, the nature of relations between Pakistan and the countries involved, as well as disputes over sources of power to be imported, solicit caution, for strategic reasons. Besides, considering the changing scenario where a sizeable number of medium to large sized projects are being initiated in the wake of China's mega scale entry on Pakistan's power generation horizon, Islamabad's electricity import options need reevaluation and reconsideration. Projects such as CASA-1000 and import from India have become less relevant, for the time being at least, while import from Iran and China may be reanalyzed in the evolving milieu and thus implemented, accordingly. – *Authors.*]

The Context

Pakistan has been confronted with an acute power sector crisis for almost a decade now, starting 2006, having crippling economic and social effects¹. All the segments of society and sectors of economy have felt and continue to feel the brunt in one way or the other². The power shortages of up to 6000 Megawatts, or more, in peak demand time are continuously forcing coercive and disruptive load-management across the country. This is not something new, but was foreseeable, since long, for a country such as Pakistan, with sky-rocketing demand and comparatively dwindling generation. No ample planning was done on part of the successive governments, however. The situation, at the moment, is precarious.

A number of steps are being taken and strategies adopted to cope with the wide-ranging crisis – each one of these demands a thorough discussion, separately. Besides augmenting the sources of power generation at home, one of the proposed solutions is direct import of electricity from the neighboring nations. A number of ideas, proposals and projects are being forwarded in this connection also.

*Irfan Shazad is Lead Research Coordinator while Ms. Waqar-un-Nisa is Assistant Research Coordinator at the Institute of Policy Studies, Islamabad.

¹For details of the crisis and its various manifestations, please see Muhammad Asif, *Energy Crisis in Pakistan: Origins, Challenges and Sustainable Solutions* (Karachi: Oxford University Press, 2012).

²The government documents estimate that productive activities disrupted because of energy shortages alone causes a loss to the tune of 7% to the country's GDP, annually. See, MPDR, "Annual Plan 2014-15," Ministry of Planning, Development and Reform, Government of Pakistan, accessed May 20, 2015, http://www.pc.gov.pk/?page_id=2874, 119

However, while every unit of energy flowing into the country welcome, all of these initiatives have their own implications and ramifications considering the broad strategic environment and evolving contours of relations between Pakistan and the regional countries involved. Similarly, the complexities of relations between some of the neighboring states, concerned with the sources of electricity to be imported, are also at play. Another important dimension is the interests of and agendas pushed by some regional and global powers for a variance of regional connectivity that suits their own larger designs. Last but not the least, consideration in an altogether new-look power generation horizon emerging out of intensified energy sector cooperation with China, as part of China Pakistan Economic Corridor (CPEC) is imminent.

This paper briefly discusses four proposals/projects currently being pursued for electricity import, though with varying degrees of enthusiasm and progress achieved so far. These include moves for power purchase from Central Asia (Tajikistan and Kyrgyzstan), India, Iran and China. The paper attempts, while analyzing pros and cons of these initiatives, to present a desired road for the country and its policy makers.

The following paragraphs and give some details about and analysis of the four power import proposals/projects currently in discussion:

Central Asia – CASA 1000³

Central Asia-South Asia 1000 (denoting megawatts, the unit of electricity), commonly known as CASA-1000 is the initial project of long-term vision of Central Asia-South Asia Regional Energy Market (CASAREM), backed by the United States and international financial institutions⁴. It is meant to finally transmit 300MW Kyrgyz and 1000MW of Tajik electricity, of which 300MW will be consumed by Afghanistan and 1000 by Pakistan. The project will be built on the terms that each country will share in the project on the basis of assets built in its territory.

³The information reviewed in this segment of the paper is taken primarily from the official websites of CASA-1000 project, the Asian Development Bank and the World Bank.

⁴The US has actively been advocating in favor of the project as it is closely linked with and becomes a boost for its own New Silk Road Initiative (NSRI) for past few years. NSRI seeks to connect South Asia with Central Asia through a network of roads, rails, pipelines and other means of regional connectivity. Please see, Khalid Rahman, "New silk Road Initiative and Pak-China Relations," *Policy Perspectives* 10, no. 1 (January-June 2013). As *The Economist* of July 26, 2014 puts it: "America had hoped that the CASA line would add zip to its lackluster New Silk Road strategy, a plan that Hillary Clinton backed when she was secretary of state." For details see, "Mi CASA no es tu CASA," *The Economist*, July 26, 2014, accessed May 15, 2015, <http://www.economist.com/news/asia/21608806-plan-export-electricity-looks-cursed-mi-casa-no-es-tu-casa?zid=307&ah=5e80419d1bc9821ebe173f4f0f060a07>

The main premise of the CASA-1000 project for Pakistan is that it will bring 1000 Megawatts (MW) of electricity into the country during the summer period, i.e., during the months of May to September. So, the objective is to reduce the short-fall which during the summer months is up to 5-6000MW, or more, in electricity-strapped though hydro-rich Pakistan. The project has received a new impetus after...?

The pro-CASA argument in Pakistan is that it will reduce the shortfall during the peak demand period.

However, counterarguments are quite strong. The first is that Pakistan, instead of importing electricity, should develop its own hydro power potential, which is estimated at up to 50,000MW. Just 1000 MW of electricity is a small portion for the installed capacity and potential of a country such as Pakistan. The second major counterargument is that continuous instability,

The pro-CASA argument in Pakistan is that it will reduce the shortfall during the peak demand period. However, counterarguments are quite strong.

ostensibly having no end in sight, in Afghanistan will keep the transmission in danger for foreseeable future. The project will itself take between 5 to 6 years to materialize, while Pakistan has already started several projects, under the present Nawaz Sharif government, which in coming few years may be expected to fill the gap between supply and demand. So the question is, will it still be viable when the electricity can actually start coming to Pakistan?

A strong foreign policy related counterargument is that Uzbekistan (which is lower riparian in case of Amudarya) has reservations⁵ on the storage and utilization of water resources in Tajikistan (upper riparian in case of Amudarya). If Pakistan enters such an arrangement with Tajikistan as CASA-1000, it will not only create an impression that Pakistan is becoming party in Uzbek-Tajik tensions, but will also weaken Pakistan's own case against India at international level. Pakistan is lower riparian in case of rivers flowing from Indian controlled Kashmir and raises objection on Indian reservoirs being built on the shared rivers. Issues and conflicts related to water resources in Central Asia, in fact, are quite complex.⁶ Further, some of the Kyrgyz experts

⁵"Uzbekistan Opposes Pakistan Plan to Import Electricity from Tajikistan," *Dawn*, March 13, 2011, accessed on April 27, 2015, <http://www.dawn.com/news/613060/uzbekistan-opposes-pakistans-plan-to-import-electricity-from-tajikistan>

⁶Please see, International Crisis Group, "Water Pressures in Central Asia" *Europe and Central Asia Report* 233, (September 11, 2014), accessed May 20, 2015, [http://www.crisisgroup.org/~media/Files/europe/central-asia/233-water-pressures-in-central-asia](http://www.crisisgroup.org/~/media/Files/europe/central-asia/233-water-pressures-in-central-asia).

also fear that the project may also raise friction between Kyrgyzstan and Tajikistan, the two participating countries⁷.

Building of the transmission line has not started yet,⁸ and once started, it will take another 5 years to materialize. The World Bank has set the closing date for its own part of financing at 30 June 2020, meaning 5 years from today. In economic terms, it is highlighted by the proponents of the project that in terms of current electricity costs. Pakistan will save up to \$350 million annually when the project is completed.

But this estimate is based on the estimates of the growth losses that Pakistan suffers today due to non-availability of electricity, thus not necessarily a solid estimate. The real beneficiaries, economically, will be selling countries and the transit state of Afghanistan. Another point to keep in view is that the major issue with Pakistan's power sector is decaying condition of its own transmission lines; not the generation potential or capacity.

India/SAARC

In past few years, governments in Islamabad have been seen exploring electricity from India as a short-

If the electricity trade agreement is materialized, it would weaken Pakistan's case for raising water issues with India at legal front and international level.

term measure to bridge the gap between generation and demand at home. In April 2012, the then Water and Power minister Syed Navid Qamar announced in a visit to India that Pakistan, in principle, has agreed to purchase 500 MW of electricity from India through a transmission line of 45 kilometers with capacity of 220 KV, to be constructed to supply electricity to Lahore⁹. In December 2013, media

reports suggested that Pakistan was moving closer in case of electricity import from India¹⁰. In October 2014, Pakistan's incumbent minister for commerce, Khurram Dastgir Khan, was reported as highlighting that import of electricity from India was crucial to tackle the persisting power crisis in the country, and Pakistan will move ahead with the plans despite

⁷*The Economist*, July 26, 2014.

⁸As of May 13, 2015.

⁹"Pakistan Agrees 'in principle' to Import Power from India," *NDTV*, April 14, 2012, accessed May 10, 2015, <http://profit.ndtv.com/news/corporates/article-pakistan-agrees-in-principle-to-import-power-from-india-301940>

¹⁰Zafar Bhutta, "Energy Trade: Pakistan Moves Closer to Electricity Import from India," *The Express Tribune*, December 23, 2013, accessed May 1, 2015, <http://tribune.com.pk/story/649700/energy-trade-pakistan-moves-closer-to-electricity-import-from-india/>

the then persisting border tensions¹¹. Yet, while enthusiasm has been expressed from Pakistani government figures repeatedly, little progress on ground has actually been reported or announced so far.

Like any dealing between the two states, with a history of hostility and mistrust, this initiative is faced with a number of issues. First and the foremost concern among the experts is that if the electricity trade agreement is materialized, it would weaken Pakistan's case for raising water issues with India at legal front and international level, when the later builds more dams on Pakistani share of river waters¹². As Shamsul Mulk, a former chairman of WPADA argues: "It would irrevocably damage Pakistan because by importing electricity from India we would not be able to argue at any international forum the denial of our resource (water) by New Delhi¹³.

There are some other concerns involved, too. The prevalent level of raises the question of reliability and sustainability. The probability of disruption of electricity and gas supply would remain there. Situations, such as, unprecedented Indian shelling across LoC and Working boundary in late 2014 and early 2015, provides a strong case for caution. Can Pakistan rely on intermittent flows of goodwill from Delhi for the sustainability of the proposed project?

It is common practice of Indian leadership to directly blame Pakistan for any unpleasant incident occurring in India, and consequently disrupting the peace process, in some cases even rollback of the progress made. What if such practice leads to the disruption of electricity supply? It may be pointed out here that one of the reasons which drove India to get out of Iran-Pakistan-India Pipeline (IPI), was that transition of pipeline via Pakistan, would be politically challenging for India as the later would be relying on Pakistan for unhindered supply of gas.

Besides bilateral moves for power import from India, there are proposals and moves to enhance cooperation between SAARC member states in the field of power/electricity generation and, thus, sale and distribution among them. The Eighteenth SAARC Summit held in Kathmandu in 2014 concluded SAARC Framework Agreement for Energy Cooperation (Electricity) and the member states have signed the agreement. Under the agreement, the projects would be devised at

¹¹There were several instances of shelling by India across LoC and Working Boundary in late 2014 and 2015. See the minister's statement, "Pakistan Eyes Electricity Import from India despite Border Tension," *India Today*, October 25, 2014, accessed April 30, 2015, <http://indiatoday.intoday.in/story/pakistan-import-electricity-from-india-despite-border-tension/1/397497.html>

¹²Several such cases of India stopping Pakistani share of the water for storage and utilization have been raised by Pakistan at international fora, and on some Islamabad has also opted for the legal course of action.

¹³"Top Water Experts Oppose Import of Electricity from India," *The News International*, July 18, 2013, accessed December 10, 2014, <http://www.thenews.com.pk/Todays-News-2-190693-Top-water-experts-oppose-import-of-electricity-from-India>

regional and bilateral level regarding, "power generation, transmission and power trade, including hydropower, natural gas, solar, wind and bio-fuel, and implement them with high priority with a view to meeting the increasing demand for power in the region."¹⁴ Electricity is already traded among India, Bhutan, Bangladesh and Nepal. However, even within the agreed SAARC framework, Pakistan's electricity trade will practically be with India, which, in the light of above mentioned issues between the two neighbors will continue to face a major question mark on its sustainability. The agreed framework, however, can be useful if there is a movement towards betterment of relations between them, simultaneously.

It needs little stress that while agreement is welcome, SAARC would have to overcome political, financial, technical and infrastructural

SAARC would have to overcome political, financial, technical and infrastructural issues to effectively implement intended regional energy integration.

issues to effectively implement intended regional energy integration and cooperation because the grouping has remained idle due largely to the unresolved territorial and political disputes between the members. Any cooperation between two major regional states, i.e., India and Pakistan, in particular, would only be meaningful if there is at least some movement towards resolution of political issues between them –

much required for an environment of trust that the region is lacking in.

Iran

Pakistan has been importing small quantity of electricity, around 70 Megawatts, from Iran for utilization mainly in coastal areas of Balochistan, for decades now. The two countries entered into a new agreement in May 2012 to increase the electricity traded up to 1000 MW, with 70% of the cost of the project to be borne by Tehran and the completion period agreed at 3 years¹⁵. Recently in March 2015, the two sides have agreed to explore the possibility of increasing the proposed import up to 3000 MW, with 1000 MW coming in the first phase¹⁶. Technical issues such as differences over setting of price and non-payment of electricity imported already by Pakistan notwithstanding, the proposals have seen little movement on the ground due mainly to the

¹⁴The Kathmandu Declaration of Eighteenth SAARC Summit, 2014.

¹⁵"Pakistan Signs 1000MW Electricity Import Agreement with Iran," *Dawn*, May 31, 2012, accessed April 30, 2015, <http://www.dawn.com/news/722861/pakistan-signs-1000-mw-electricity-import-agreement-with-iran>

¹⁶Mushtaq Ghumman, "Border Areas of Balochistan: Iran Agrees to Raise Power Supply." *Business Recorder*, March 07, 2015, accessed May 10, 2015, <http://www.brecorder.com/fuel-a-energy/193/1158696/>

pressures of international powers who have kept Pakistan away from importing either electricity or gas from Iran.

Now, with prospects for removal or at least easing of sanctions against Iran in the wake of possible deal on Tehran's controversial nuclear program, options of energy imported from this western neighbor is becoming relatively more feasible. Yet, how the present PML-N regime moves on this issue – considering not only the sanctions that are yet to be lifted but also obvious pressures from Arab states, particularly Saudi Arabia, and specifically so in the worsening tussle for enhanced influence between Riyadh and Tehran – remains to be seen.

Present and evolving relationship with Iran calls for arriving at, and signing of an agreement that takes care of possible future frictions and competitive tendencies.

Another point to consider in this regard is the attitude of Tehran in years ahead, as the competition between Gwadar and Cha Bahar intensifies. Supplying electricity to Gwadar will mean Iran is fuelling a competitor of its own port next door. This peculiar setting of present and evolving relationship with Iran calls for arriving at, and signing of an agreement that takes care of possible future frictions and competitive tendencies, well in advance, safeguarding mutual interests.

China

A rather less discussed option is import of electricity from China. The idea was first mooted by the Chinese officials to Shahbaz Sharif, the Chief Minister of Punjab, in October 2013,¹⁷ to sell some 3200 MW. Later it was reported in a section of Pakistani press that PM Nawaz has apprised a cabinet meeting, held on February 23, 2015 that facing an uncertain future of electricity and gas trade with Iran in the wake of continued sanctions on Tehran, Pakistan may be seeking import of some 3000MW of electricity from China.¹⁸

However, this was before two important developments to unfold in the following weeks. Firstly, on April 2, 2015, Tehran and P5+1 agreed upon a framework that aims at culminating in a comprehensive agreement between the two sides on Iranian nuclear program by June 30, 2015 and thus may pave the way for easing or removal, though gradual, of sanctions presently in place against Iran. Secondly, Chinese President Xi Jinping paid his long stalled official visit to Pakistan on April

¹⁷*The Nation*, October 25, 2013.

¹⁸Zafar Bhutta, "Chinese President's Visit: Islamabad, Beijing May Shake Hands Over Electricity Import," *The Express Tribune*, March 6, 2015, accessed May 4, 2015, <http://tribune.com.pk/story/848505/chinese-presidents-visit-islamabad-beijing-may-shake-hands-over-electricity-import/>

19-20, signing agreements worth \$45 billion out of which projects worth more than \$30 bn. were of energy, to be completed on fast track (early harvest) by 2017, under China-Pakistan Economic Corridor (CPEC).

The above mentioned two developments have now clouded the proposal of electricity important from China, and the authorities in Islamabad are yet to clarify whether the import option, with a transmission line to be built through an equally harsh terrain as in the case of CASA-1000 would be pursued parallel to mega energy related initiatives under CPEC, or would it be shelved for now. Politically, this would be the most feasible and sustainable option. However technically and considering the changed scenario of planning for increased generation, this option too needs a thorough review and reconsideration to how much imperative it is.

A major consideration favoring this proposed arrangement is that a transmission line, if laid for the purpose of importing electricity into north of Pakistan from China's north west, may in the long-run also serve the reverse purpose. It is quite likely that Kashgar Special Economic Zone and surrounding region, where economic activity is to grow manifold over coming years, may be importing electricity from the same line once the panned hydro projects in northern Pakistan start their generation and the same may not be enough on the Chinese side, through the same line.

Conclusion

The above brief mapping of Pakistan's electricity import options leads one to think that while the people of Pakistan would welcome every unit

Overemphasis on import of modest quantities of hydro-power for country like Pakistan perhaps would not be a very wise decision, technically as well as strategically.

of electricity made available to them through any of the possible sources – and that quick import of electricity may reduce the punishing impacts of load-management to some extent – overemphasis on import of modest quantities of hydro-power for country like Pakistan perhaps would not be a very wise decision, technically as well as strategically. Instead, the country needs to focus this attention and resources on

developing its own hydel potential, which is much more abundant,¹⁹ and several projects for which have already been initiated.

The power generation projects under CPEC will not take any longer than the import options being explored and this makes the import even less feasible in the medium to long run.

¹⁹Estimates range as high as up to 50,000 MW o hydro potential in Pakistan.

While relationship with Central Asian Republics (CARs) is important, it would be wise for Islamabad to refrain from such a project that has the potential of fueling tensions between CARs themselves – as is the case between Tajikistan and Uzbekistan. Regional connectivity must eye harmony in the region, not risk destabilizing it further, which is potent danger in this case. Pakistan, instead, it may be suggested, should come forth to help the CARs arrive at a long-term regional arrangement for sharing of the trans-boundary river waters, based on Islamabad's own experience in this connection. One thousand or so megawatts of electricity is too small a bargain to lose much needed goodwill for, in the present regional circumstances.

Besides, Pakistan can ill-afford to weaken its principled stance and case at international fora, by tacit acquiescence with the use of river water by India; neither does it make any sense to support the case of another upper riparian state, Tajikistan, indirectly weakening our own in a similar scenario. And this price is particularly high considering that the actual volume of electricity the country hopes to import, in final analysis, remains quite modest. Besides, Pakistan does not need to continue to toe the lines of IFIs lead by the west, as alternative financing options such as China-led financial institutions are becoming available. It is strongly suggested to take the proposals such as CASA-1000 and electricity import from India, of the table now.

Power supplies to strategically important ports of future, such as Gwadar, cannot be made dependent on import alone.

Power import from Iran remains imperative, but it may also be reevaluated particularly in the wake of two coal fired power plants being planned for Gwadar. Power supplies to strategically important ports of future, such as Gwadar, cannot be made dependent on import alone. The import option may however be kept open and pursued aggressively for the geographical stretch of Balochistan that becomes too costly for our own national generation and distribution infrastructure to serve. A sense of desperation in such negotiations has to be avoided, and a price arrangement that is fair and sustainable in the long term, needs to be put on paper before moving further ahead.

As to the proposal of import of power from Xinjiang, China, that may remain there on paper but actually long-term planning and moves should be taken up after thorough analysis of demand and supply situation in the north of Pakistan, as well as its cost-effectiveness.

All in all, the changing power scenario demands a candid review and reconsideration of all electricity related import options; and thus moving ahead accordingly, in the national interest.

Bibliography

- Asif, Muhammad. *Energy Crisis in Pakistan: Origins, Challenges and Sustainable Solutions*. Karachi: Oxford University Press, 2012.
- International Crisis Group. "Water Pressures in Central Asia." *Europe and Central Asia Report* 233. (September 11, 2014). Accessed May 20, 2015.
[http://www.crisisgroup.org/~media/Files/europe/central-asia/233-water-pressures-in-central-asia](http://www.crisisgroup.org/~/media/Files/europe/central-asia/233-water-pressures-in-central-asia)
- "Annual Plan 2014-15." Ministry of Planning, Development and Reform, Government of Pakistan. Accessed May 20, 2015.
http://www.pc.gov.pk/?page_id=2874
- Rahman, Khalid. "New Silk Road Initiative and Pak-China Relations." *Policy Perspectives* 10, no. 1 (January-June 2013).