



Overcoming the Challenges in Financing Power Sector in Bangladesh

Conference on Investment in Power Sector of Bangladesh: Opportunities and Challenges

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1. Despite low per capita power consumption (220 kwh in 2009) by regional comparison, Bangladesh now faces power shortage of 1500-1800 mw against peak demand level of 5800 mw, impeding output activities and routines of day to day life. Power import from grids of neighbors can to some extent ease the shortage (arrangement lined up with India for 250 mw may eventually provide up to 500 mw), but rising demand within the growing neighboring economies limits near term prospects of imports sufficient to cover the demand gap.

Highest priority has therefore been accorded to adding sufficient new domestic power generation capacity. Bridging of the demand gap by 2011, and raising of output to 8500 mw and 11500 mw respectively by 2013 and 2015 are targeted; with commissioning of total 9426 mw new generation capacity by 2015. The power and fuel sector 'roadmap' June 2010 issued by the Finance Ministry lays down phased plan of setting up a total of 57 smaller (up to 150 mw) and 12 larger (200 mw and higher) new power plants by year 2015, with total generation capacity of 10741 mw. Of these, 25 plants with 3780 mw capacity are planned to be solely public financed, 5 plants of total 2820 mw capacity are planned to be financed in Public-Private Partnership (PPP), and 39 plants of total 4141 mw capacity are expected to be financed solely by private sector. In the roadmap document, *the total cost is estimated at about USD 9.0 billion, of which USD 8.0 billion is expected as private sector investment.* (it is unclear however how USD 1.0 billion can be enough for new public sector plants of total 3780 mw capacity and for PPP participation in some others, if it costs USD 8.0 billion for the private sector to set up plants of total capacity not exceeding 6961 mw including PPP participations). Plans for the new installations aim to avoid the existing overdependence on natural gas; using a more diverse range of fuels including diesel, furnace oil, coal and nuclear, besides natural gas. Renewable energy (solar, wind, biomass) based power generation is also planned to be raised to five and ten percent of total output respectively by years 2015 and 2020.

Financing of the estimated USD 9.0 billion investments by year 2015 will be a challenge, but not an intractable one if properly planned and managed. The aforementioned apparent

imbalance in cost estimates indicates that public investment may need to be higher, more so if private sector response turns out to be slow.

The large bulk of the estimated USD 9.0 billion investments over five years will have to be spent on import of the needed plants, equipment and technical services from abroad. Sole reliance on domestic investment will therefore be impractical, putting too much pressure on current inflows and reserves in foreign exchange, neither of these now on rapid rise. *The financing plans for power sector investments will therefore need to welcome and attract external equity and longer term debt investments, besides local investments to the extent the domestic markets can provide without undue strain.*

2. The GOB and BB have already initiated steps to activate and facilitate mobilization of domestic and external investments in the power and fuel sector, including holding of road shows in major global financial hubs. It will be helpful to look at the financing challenges and options in a disaggregated way, according to plant sizes and investment sources planned for in GOB's power and fuel sector 'roadmap'.

a) As earlier mentioned, the 'roadmap' plans for 20 new smaller plants of total 2010 mw capacity and 5 new larger plants of total 1770 mw capacity by year 2015 financed solely by public sector. Besides, 3 smaller plants of total 220 mw capacity and 2 larger plants of total 2600 mw capacity are planned to be financed partly by public investment, in partnerships with the private sector (PPPs).

For the bulk of the foreign exchange component of the public sector outlays in power sector infrastructure (including transmission lines, natural gas import terminal and power plants), GOB can approach multilateral and bilateral official development partners for concessional long term loans. As a low income developing economy, Bangladesh remains eligible for concessional ODA from development partners.

The local expense components of the planned public sector outlays can be financed with GOB's routine domestic borrowing for deficit financing; but *earmarked borrowing for infrastructure sector by issuing freely tradable long dated (10-20 year) 'infrastructure bonds' in Taka will be a more appropriate option, helping deepen the domestic bond market.* Like the existing treasury bonds, the infrastructure bonds may be kept available for non-resident investors as well; with free convertibility and repatriability of coupon interest earnings and secondary sale/ redemption proceeds of bonds held by them, net of taxes if any.

Partnership modalities in the PPPs will presumably vary somewhat from project to project, the example of Jatrabari flyover project now being implemented under public-private partnership may be instructive for the power sector PPPs.

b) The 'roadmap' expects sole private sector sponsorship of 34 new smaller and 5 new larger plants with total capacities respectively of 2641 mw and 1500 mw by year 2015 (including 14 rental plants of total 1647 mw capacity expected to be commissioned within year 2010); besides the earlier mentioned private sector participation in PPPs for 3 smaller and 2 larger plants of total 2820 mw capacity.

As at present, the smaller private sector power plant projects can be financed mainly by the domestic debt and capital markets, supplemented where needed by external term borrowing with clearance from the BOI Scrutiny Committee. Greenfield entrepreneurs in the sector will need to put up own funds as initial equity, while those with past track records will be able to access the capital market with public issue of equity.

To facilitate accessing larger sized local borrowing for power projects, recently BB has *temporarily waived single borrower exposure limits on bank lending to these projects*. Further, a USD 50.0 million IDA supported credit line titled *Investment Promotion and Financing Facility (IPFF) administered by BB* has co-financed with local lenders in term lending to seven small power projects. With the initial allocation utilized fully, the IPFF is being replenished with a larger (USD 257 million) new infusion from IDA.

External borrowing in foreign currencies by private sector projects in the power sector has also been facilitated by the recent first ever sovereign credit rating of Bangladesh (by S&P, Moody's); placing Bangladesh favorably, only behind India in the South Asian region, with stable outlook.

To further facilitate foreign currency term borrowing by the power projects (and other projects seen as high priority) at the more favorable end of the prevailing market rates, it is possible to set aside a portion from the foreign exchange reserves (say, a couple of billion USDs) for foreign currency term lending to the projects (particularly the smaller ones with little familiarity with external borrowing), disbursable through the co financing domestic banks that will guarantee repayments in the currency of borrowing. Besides more affordable rate for the borrowers, this option will improve somewhat the prevailing low earnings on reserve investments, albeit with tradeoff in liquidity. Such an arrangement will require legal empowerment for using part of the reserves as an investment vehicle somewhat in the nature of a sovereign wealth fund.

c) Renewable energy technologies are still evolving, and with high initial costs despite tax breaks and other incentives are yet to attain cost competitiveness as commercial proposition. Large scale commercial ventures in wind or solar based power generation appear unlikely in the near term, GOB's 'roadmap' for up to year 2015 mentions modest plans for 4 solar power units of 10-15 mw capacity each and a wind farm power unit of 100 mw capacity.

Support from the UN sponsored carbon trading mechanism and from international philanthropies are available for mitigating the higher costs and risks in renewable energy projects, exemptions/waivers in govt. taxes/duties for such projects are also generous. With the projects making use of these supports, financing needs of the smaller scale renewable energy based power projects are likely to be adequately met by the domestic debt and equity markets.

Quite appropriately, solar power units were introduced in Bangladesh firstly in household scale for dwellers in remote off grid areas; more than half a million home solar units are by now in use. Urban households now seriously afflicted by frequent load shedding will also be interested in solar power units, with appropriate promotion. Concessional refinance is available from BB against loans for installation of renewable energy projects including solar power units. *A comprehensive program can be taken up collaboratively by the BB, banks/financial institutions and the concerned government department to scale up several fold the lending (and refinance support) activities for renewable energy based power generation (including solar, biomass and wind powered).*

In general, renewable energy is unlikely as yet to be perceived by businesses as cost competitive for their manufacturing operations, but significant part of power needs of their offices and commercial outlets can be met using renewable energy based power units, as in the examples in the honorable Prime Minister's Office and in BB HO. The comprehensive program suggested above can motivate and urge the private corporate sector to go for use of significant extent of power generated in renewable energy based plants (they can be advised to treat the higher cost involved as a CSR expenditure). The program will also need to be proactive in helping renewable energy based projects in accessing technical know how and financial supports available from external sources including the globally active philanthropies and the carbon trading mechanism.

The likely total contribution of renewable energy based power in meeting the demand gap may remain modest in size, but will still be significant in smoothing out spikes in load on the national grid during peak demand periods. The environmental benefits must also not be forgotten.

d) The larger scale power projects in the ‘roadmap’ earmarked for private sector and PPP sponsorships (particularly the gigawatt sized ones) are likely to need larger financing than what the domestic markets can readily provide. These would in general be suitable for part or sole participation of foreign equity. Risk sharing mechanisms in financing such larger projects exist in WB’s Multilateral Investment Guarantee Agency (MIGA); credit lines and guarantees are available also from export credit agencies of developed and emerging market countries. Besides conversion and repatriation guarantees on current income from nonresident investments inherent in current account convertibility of Taka, the Foreign Private Investment (Promotion and Protection) Act 1980 and a host of bilateral investment protection agreements with foreign governments protect foreign private investments in Bangladesh from expropriation and from restrictions on convertibility and repatriability of disinvestment proceeds.

3. Against the above mentioned facilitations and incentives for local and foreign private investments in power sector in Bangladesh, the cash strapped financial position of BPDB (the purchaser of power for the national grid from private sector power plants) is seen as a significant discouraging factor. BPDB’s receipts at subsidized user prices fall short of amounts payable to private sector power producers, causing irregular settlement of their bills, with uncertain timing of PDB’s receipt of subsidies from govt. budget allocations. A durable remedy would be in BPBD being allowed to recover full cost from power users, enabling it to make timely payments for purchases from private producers. The government can make separate arrangement of direct payment of subsidies to deserving users, including low income households consuming up to, say, 50 units a month (as in India), farmers using power for irrigation, and manufacturing establishments including small and cottage industries using power for their output activities. Exclusion of better off households and commercial establishments from subsidized power tariff will relieve the government’s budgetary burden significantly.

4. Summing up, comprehensive institutional arrangements are in place for addressing the financing challenges in the urgently needed power sector investments in Bangladesh, of course with scope for further development and expansion as needs expand. It will be useful for GOB’s Energy and Finance Ministries, BB and BOI to work in close co-ordination in ensuring flexibility and responsiveness of the available arrangements to the needs of undertakings of various sizes and types. Regular periodical contacts and consultations of these authorities with power sector entrepreneurs and the financing community will also be important in tracking and promptly addressing the needs and issues as they arise.

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