

THE STATE OF THE POWER SECTOR IN VIETNAM

Presented by
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The VBF Infrastructure Working Group respectfully would like to report on the views collected from its members on issues and steps that could encourage much-needed private sector investment into the power sector.

1. PROBLEM

- 1.1. Vietnam, simply put, is not building power plants fast enough to cope with the needs of an industrialising economy. While the current economic downturn may have provided some brief respite from the increased demand, a massive increase in supply will be needed over the next 10 years.
- 1.2. The Ministry of Planning and Investment has recognised this through the issue of Master Plan VII for the period 2011 – 2020, but there is a lot of work to do to implement the objectives of the Master Plan VII.
- 1.3. The total investment capital required for 2011 – 2030 is estimated to be around VND2,359 trillion (approximately US\$123.8bn). Vietnam Electricity (*EVN*) is unlikely to be able to contribute all of this investment capital, especially considering its financial situation.
- 1.4. PetroVietnam has recently played an increasing role in this sector, and has helped to fill some of the needs left open by EVN's financial issues. Yet the Government now requires that State-owned companies focus on their core competencies. The VBF sub-group would request the views of the Government on whether power is a core area for PetroVietnam, and whether it expects PetroVietnam to play an increasing or a reduced role in this sector.
- 1.5. Regardless of PetroVietnam's role, it would be useful to the overall development of the Vietnamese economy if foreign investors and lenders could contribute in a substantial manner to the development of power projects in Vietnam. However, the economic situation in Europe and other challenges to commercial banks means that many banks, the European ones in particular, are scaling back their lending to projects in Asia. Anecdotally, according to one of the leading project finance banks, there may only be lending capacity for one power project in Asia each year.
- 1.6. Accordingly, if Vietnam wishes to be in the running to be that successful project, it will need to develop projects that are an attractive commercial proposition to foreign investors and lenders. To do this, the projects will need to deliver an acceptable return and legal security to foreign investors and lenders.

2. BOT - PRICE ISSUES

Raising power tariffs to end users is difficult in a time of inflation and economic difficulty. Private money will only flow to power projects if the projects make financial sense. With construction costs and fuel costs increasing, power pricing needs to increase to justify the development of major new power facilities. The Government is moving toward a market-oriented power pricing methodology, but until the time it is fully implemented, improved pricing is needed to ensure that insufficient power investment does not stifle future economic growth.

The impact of price increases can be minimized if costs can be contained. If they are not, two problems stem from a higher power tariff. First, EVN will naturally seek to dispatch lower-cost power facilities prior to higher-cost facilities - a proposition not satisfactory to potential investors in the sector. In addition, EVN will bear the costs of the unnecessary tariff increases, thereby straining its financial standing.

There are various cost-containment areas where the sub-group would request consideration by the Government.

2.1 Cost of Land

- (a) Under the regulations on BOT projects, BOT companies do not need to pay rent for the land that they use. But there are nevertheless some significant land costs for BOT projects:
- (i) The cost of land clearance and compensation and site improvement is often substantial. In order to turn a profit, the developer needs to recoup those costs by factoring them into the power tariff. If cleared land is provided to the developer, as was the case in Mong Duong 2, then projects may be more attractive and have lower power tariffs. Other power projects are required to pay the cost of land clearance/compensation and site improvement. Depending on the size of the plant and the location, such costs can be more than \$50 million. The VBF sub-group would request a stronger commitment of the Government to prepare for land transfer in advance and to allocate appropriate budgets to the process. Otherwise, the risk is shifted to the private sector, which results in a passing through of the costs, which will necessarily be higher than the costs to the Government in the first place.
 - (ii) Just as troublesome, the local people's committees in the area concerned often claim that they do not have the funds to advance such costs. Therefore the developers have a choice between (i) advancing the funds themselves (and taking the risk that the project is licensed in acceptable form and that they achieve financial close), and (ii) waiting until financial close in order to commence compensation and improvement work. Compensation and improvement work, depending on the site, can take two years or more. The end result is delay – the country cannot achieve the schedule set out in Master Plan VII.
 - (iii) There is an indirect financing cost of not being able (according to certain arms of the Government) to mortgage land for which no payment has been made. This is an easily soluble issue.¹ All that is needed is a regulation that states that land that is leased at no rent is deemed to have been paid for in full when it is leased. There is a compromise in Official Correspondence 1604 (**OC 1604**) issued by the Prime Minister on 12 September 2011, which states that investors have the right to mortgage the assets attached to the land. And *“if the assets attached to the land are assigned, then the assignee shall inherit the use right of the land to which the assets are attached for the residual term of the project contract term [or duration].”* While this may eventually give banks the comfort that they need, by adding to the overall impression of Vietnam as an eccentric legal jurisdiction, it does not assist in Vietnam's goal of obtaining the best terms for its borrowings.

¹ Indeed, the VBF sub-group does not believe the issue should have arisen at all. Land rent exemptions for BOT projects are an investment incentive, and should not prejudice investors' entitlement to grant security interests over the land they need for their project.

2.2 Cost of Inputs

- (a) A majority of the coal-fired power stations listed in Master Plan VII are expected to use imported coal. The reliance on imported coal makes Vietnam's future power plans subject to the movements in the price of coal. With rumours afoot of limits by the Indonesian government on the export of coal, many of these 45 power plants may become uneconomical if the price of coal on the international market increases substantially.
- (b) The imported coal price passed on to domestic users could be increased if Vinacomin acts as the monopoly coal distributor. The Group would request an update of the Government's deliberations on whether Vinacomin will indeed have this role and, if so, the reasons why. At a minimum, projects procuring their own coal should be protected from the need to interpose a distributor.
- (c) Domestic coal-fired projects are limited by the availability of domestic coal. They are also limited by the inadequacy of domestic logistics. Transporting vast quantities of coal from mine to plant is not accomplished easily. Lenders view the operation with some misgivings and any weak links can upset the financing of a project. Unfortunately the risks in Vietnam have been exacerbated by two facts:
 - (i) OC 1604 states that the Government will not guarantee the transportation of coal, even by Vinacomin, the State coal company.
 - (ii) The Government has expanded this to mean that all coal delivery risk has to be borne by the developer (i.e. the no-guarantee position has become an overall allocation of risk issue).
- (d) Domestic gas-fired projects have lower capital costs, less emissions and greater operational flexibility than coal fired projects. The costs of developing indigenous gas fuel resources, however, may be higher than imported coal costs which can result in a total cost of generation that may be equal or higher than new coal fired plants. When the total cost of power is evaluated from the Government's perspective the cost of domestic gas derived power is lower due to the upstream taxes paid on its development and production. In addition to reduced power costs there is reduced dependence on foreign fuel supplies and exchange rate risks.

2.3 Cost of Financing

- (a) In evaluating a project, a developer will evaluate whether the potential rewards justify the risk. The higher the risk, the higher potential rewards that must be offered by the project, and vice versa. In order to reduce the risk, and therefore reduce the potential rewards that must be offered by the Government in any prospective project, Governments often offer to guarantee certain aspects of the project, reducing the risk to a theoretical risk of sovereign default.
- (b) One particular area of concern for foreign lenders to power projects is foreign exchange convertibility, remittability and availability. Unfortunately, Official OC 1604 entrenches a position on government guarantees for foreign exchange that is very difficult for foreign lenders and developers to live with.
- (c) OC 1604 provides that the guarantee of foreign exchange will only extend to 30 per cent of revenues after deducting expenses incurred in Vietnamese dong. This does not provide foreign developers and foreign lenders sufficient comfort. The only power projects of any size in Vietnam that have been financed to date have been financed on the basis of 100% foreign exchange guarantees. This was at a point in time when Vietnam's foreign exchange

position was, if anything, looking better than it does currently (though we have to leave it to the macro-economists to determine the validity of such comparisons).

- (d) There is an additional problem that stems from lack of uniform applicability of guarantee principles. Some power projects have been licensed (or, in the case of Nghi Son 2, have been tendered), on the basis of 100% foreign exchange guarantees. As the commercial project finance markets are extremely narrow in Asia (and getting narrower all the time), banks can be very choosy about which project to fund. If they have a choice of a project that has a 100% foreign exchange guarantee and one with a 30% foreign exchange guarantee, then if everything else is roughly equal they will fund the former. As a result no project with a 30% foreign exchange guarantee is likely to be financeable in the near future in the commercial market.

2.4 Cost of Related Infrastructure

- (a) All power projects require certain infrastructure in order to operate and produce electricity. For example, they need water and they need transmission lines to take electricity to the national grid. Sometimes they may even need brand new jetties or ports (e.g. for imported coal projects). All of these items of infrastructure can cost many millions of dollars, depending on what water sources are available and where the nearest existing transmission lines are to be found.
- (b) Unfortunately, the infrastructure is not always the responsibility of EVN or the Ministry of Industry and Trade, and so an effort is often made by these bodies to put both the cost and the risk of these items onto the developer. This is easier for EVN and the Ministry of Industry and Trade than negotiating with responsible Vietnamese ministries and companies. Unfortunately it just makes the developer negotiate with these ministries and companies (which is even harder than it is for EVN and the Ministry of Industry and Trade), it results in higher prices, uneconomic risk allocations (which puts prices up) and delays.
- (c) As the issue of infrastructure sharing is currently not specifically regulated, the Group would suggest that it would be more efficient if the Ministry of Industry and Trade procured the completion of any infrastructure outside the boundary of the power plant. This would have cost benefits as well as avoid any delays to the estimated project schedules.

2.5 Other Costs

- (a) There are numerous other areas that drive up the cost of power from a BOT project (e.g. high fees, high performance bonds (with payments for delay and performance that would have caused stressed the finances of EVN had equivalent obligations been applicable to it over the years), strict equity capital requirements, inability to repatriate non-profit cash etc.

2.6 Cost of Bureaucratic Hurdles

- (a) The multiple levels of departments and bureaucracy that are involved inevitably lead to delays in the negotiation of large power projects, and consequently, delays to the increase in the power supply. A normal gas-based power BOT project would require a developer to negotiate separately with (and the list below, depending on the circumstances, may not be exhaustive):

- the Government Office;
- the Ministry of Industry and Trade;
- the Ministry of Planning and Investment;

- the Ministry of Finance;
 - the Ministry of Science and Technology;
 - the State Bank of Vietnam;
 - PetroVietnam;
 - Electricity of Vietnam;
 - the local People's Committee (more than one if there are pipelines crossing different provinces); and
 - local providers of infrastructure such as land and water.
- (b) The Working Group acknowledges that the government has made an effort centralise negotiations for BOT projects. In particular, it notes that in BOT power projects, the MOIT acts as the convener of general meetings and requests the presence of different ministries and bodies. These ministries and bodies do not necessarily seem to act with a unity of national purpose. Every actor seems to have a veto or at least substantial delaying power. This may continue to hold Vietnam back.

2.7 Recommendations

The VBF sub-group encourages the Government to focus on making costs lower for power projects. There are many ways in which savings can be achieved. While some costs may have to be borne by the Government or its ministries or provinces, the overall costs of a project will be lowest if all risks are borne by the entity most able to handle them. Furthermore, it would send a good message to the viability of PPP projects if public participation from the Government was more available to BOT projects, which are, after all, but one form of PPP in a conceptual sense (though not in a legal sense in Vietnam).

3. BOT PROJECT EVALUATIONS

- 3.1. There have been many rumours surrounding the Nghi Son 2 power project tender but no official announcement of the winner of the tender. The Working Group would appreciate an update of the position. Uncertainty with respect to the Nghi Son 2 power project is slowing on-going negotiations of other key power projects, which ultimately will make those projects more expensive for Vietnam to procure.
- 3.2. There have been indications that a Circular is being drafted by the Ministry of Industry and Trade on the evaluation of BOT projects. The Group would appreciate the opportunity to review this draft and comment on it at an appropriate point before issuance. This will provide a well-controlled market sounding of the draft Circular, where stakeholders such as VBF would seek to add constructive views to improve its effectiveness.

4. PPP PROJECTS

The VBF sub-group encourages a continuation of the recent rethink about how the private sector can support the rebuilding of Vietnam's infrastructure, which began with the recent introduction of pilot PPP regulations. There remains a lot more to be done, as demonstrated by how few private sector infrastructure projects exist, particularly foreign-invested ones which can tap into foreign financing.

4.1 PPPs

- (a) In November 2010, Vietnam issued regulations permitting PPPs on a trial basis in certain sectors.² The regulations did not limit the form of private participation in infrastructure.

² (a) Roads, road bridges, tunnels and ferry landings for road traffic; (b) railways, railway bridges and railway tunnels; (c) urban transport; (d) airports, seaports and river ports; (e) fresh water supply systems; (f) power plants;

The trial PPP framework will let the Government share the risk with private investors in infrastructure projects. Unfortunately, progress since November 2010 has not been uniform. We understand that there is now a PPP office inside the Public Procurement Agency of the MPI, that this body will be in charge of policy coordination and that actual negotiation of projects will be the responsibility of line ministries and local people's committees. The Working Group would welcome further clarity on the organisational structure that the now Government anticipates for PPP, and what powers the PPP office will have.

- (b) Under Decision 71, the Government can fund up to 30 per cent of the required investments, unless otherwise decided by the Prime Minister. This has given rise to numerous questions, such as:
 - (i) Are the costs of land rental, land clearance and compensation and land preparation to be counted within the 30 per cent? The general market consensus would probably be that land rights contributed by a public authority should not count within the calculation of public support or viability gap fund usage (where a viability gap fund is established).
 - (ii) Is capital contributed by State-owned companies considered to be part of the 30 per cent? The Government expects State-owned companies to act as private, commercial enterprises. In the absence of some sort of capital injection for a specific PPP project, their participation in such project should presumably not be viewed as a State contribution.
 - (iii) How are guarantees from the Government to be valued?
 - (iv) Are tax incentives to count as State contributions?
 - (v) Should the State participation be in the form of equity (and if so, how except through State-owned companies), debt, grants, provision of other projects necessary for the viability of the PPP project (and if so, how does one limit the determination of what is "necessary") or any of the above?
- (c) Some international donors are considering how to provide finance for this effort. We understand that the Asian Development Bank, DFID, AFD and JBIC among others have offered to contribute, either to a PPP Project Development Facility or to their own schemes. This may enable certain pilot projects to be fully prepared. Of the 30 projects that were presented to the PPP office, it appears that 27 were either not commercial or were too dependent on other projects or the performance of the relevant master plan. Certain projects were apparently re-packaged ODA offerings.
- (d) Of the three remaining projects, one was in the newspapers recently as having been awarded on a BOT basis already. So one of the concerns of the VBF sub-group is to understand how a PPP project will be developed without the risk that it is awarded on a negotiated basis once the preparation work has been done. In other words, how do PPP projects co-exist with BOT projects, for how long and what is the Government's ultimate

(g) health (hospitals); (h) environment (waste treatment plants); and (i) other infrastructure development and public services supply projects as decided by the Prime Minister.

goal? Conversely, many people are struggling to differentiate PPPs from tendered BOT projects.

- (e) The new regulations are pilot project regulations. The pilot projects are supposed to provide the experience on which fuller regulations can be based. The Group realises that these regulations are open-ended in order to leave maximum flexibility for creation of pilot projects of different types. But it appears to be very difficult for projects to be developed without clear guidelines about what is and is not permissible. The most important issue is what risks the State will bear and what risks will be allocated to the private sector. But all of the above issues on the meaning of State contribution have to be worked out as well in these guidelines. The VBF sub-group would welcome some further detail about the likely timing and content of these guidelines. If the goal is to have guidelines that are comprehensive, in order to make Decision 71 framework a complete force, this would of course be welcomed by the PPP community. But it is a goal that has eluded the BOT sector.
- (f) In the meantime, pending these guidelines and preparation of viable projects, the VBF sub-group believes that realistically it may be an appreciable time until PPPs prove to be successful in a specific field. The PPP office will need to invest in building capacity for project preparation and will need to apply rigorous procedures to ensure that the first PPP projects to be implemented are those with the highest likelihood of success. Until then, the BOT regulations should be radically improved and then used with greater vigour.

4.2 BOTs

- (a) One of the reasons heard for the attempt to develop PPPs is that the BOT scheme did not work well:
 - (i) There have been very few project financed BOTs, so very little foreign money has financed Vietnamese infrastructure (and not much genuinely private domestic Vietnamese money either, though this figure is harder to establish).
 - (ii) There have been some domestic BOTs, but the impression is that funding for these has often ultimately been through state sources, so the structure does not bring in the private capital that was intended.

But this is not a reason to abandon BOTs as much as a reason to try to make them better.

- (b) In recognition of the shortcomings of the existing legal framework, several decrees, including Decree 108 of November 2009 were issued with the aim of providing a uniform framework applicable to both Vietnamese and foreign investors. This resulted in the Mong Duong 2 power project in April 2010, which was the first project to receive a licence from the MPI for a BOT power project since Phu My 2-2 and Phu My 3 in 2001. Since then, the regulatory framework has expanded some more, with the arrival of Decree 24 in April 2011 (which is an amendment to the previous Decree 108). Decree 24 broadens the scope of the previous Decree 108, by encouraging investment in infrastructure facilities (in the sectors of medical health, education, training, occupational training, culture, sports, etc.).
- (c) Unfortunately, Decree 108 plus Decree 24 make little substantive difference to the prior Decree 78. Both documents are general and leave much discretion to the government bureaucracies charged with administering them. As these bureaucracies operate by consensus and as the projects are often complicated, all implementation of these decrees is

at best slow. It is difficult to conclude that these decrees are written for the purpose of encouraging the swift implementation of infrastructure projects.

- (d) The Group would suggest that it is time for some radical action. This could take the form of improving the substance of the regulations to provide greater support for investors. Or at least the imprecision of existing regulations could be eliminated so as to remove administrative discretion (and hence reduce delays). Many investors who are willing to commit hundreds of millions of dollars find it unnecessarily tiresome that the regulations contain so few clear answers and that everything depends on administrative discretion. The cost of these delays to the Vietnamese State and people can be substantial.

5. RENEWABLE AND NUCLEAR ENERGY

- (a) Renewable energy continues to be a key part of Vietnam's planned sources of future power supply. The reliance on renewable energy reflects both the reality that Vietnam needs to source whatever power it can to match demand and the moral obligation to reduce the likelihood of anthropogenic climate change.
- (b) However, despite the above sources of motivation to pursue renewable energy, there remains a dearth of significant renewable energy projects in Vietnam. The targets set for renewable energy in the Master Plan VII appear to be unachievable to the VBF sub-group under the current investment conditions.
- (c) The Working Group acknowledges the issue of Decision 37 of the Prime Minister regarding wind power and the incentives offered for investors in wind power projects, but continues to call for effective implementation of laws on renewable energy as well as for further thought about feed-in-tariffs supporting all large renewable energy sources (wind, biomass and biogas production) in order to stimulate new investment. The key to success will be a commitment to feed in tariffs to make the projects competitive with conventional thermal projects. However, with large scale base-load projects continuing to be delayed, we would question how strong the commitment to renewables will be.
- (d) The Working Group would recommend the following actions:
- (i) Revise the Renewable Energy Targets in the Master Plan VII to a more modest, and achievable level.
 - (ii) Develop a comprehensive Renewable Energy Plan including, solar thermal, solar PV, biomass and biogas in addition to wind.
 - (iii) Issue effective feed-in tariffs for each energy source that deliver a cost plus reasonable economic profit to investors.
 - (iv) Enhance the incentives to manufacturing of renewable energy equipment in Vietnam to promote employment and inward investment to Vietnam.
 - (v) Consider switching government subsidies from fossil fuels to renewable energy to generate rapid development of this new industrial sector.
- (e) The Working Group notes that nuclear energy will inevitably be more difficult post-Fukushima. Countries without existing nuclear power programmes, such as Vietnam, have an even more complex and challenging task than they did before. Vietnam will no doubt be confronted with the challenges that have been thrown into relief by Fukushima as well as those that already existed before:
- Generating international confidence in nuclear non-proliferation and nuclear security;
 - Developing human resources: recruiting, training and educating for industry and regulators;

- Implementing comprehensive domestic legal and regulatory infrastructure that actually works in a crisis;
- Ensuring that the regulators are effectively monitoring the industry and not simply ex-industry or non-expert officials in quasi-retirement;
- Maintaining political will and developing public support and acceptance;
- Validating economic competitiveness of nuclear power; and
- Developing of physical domestic infrastructure to support nuclear power, for example the capacity of the national electricity grid.