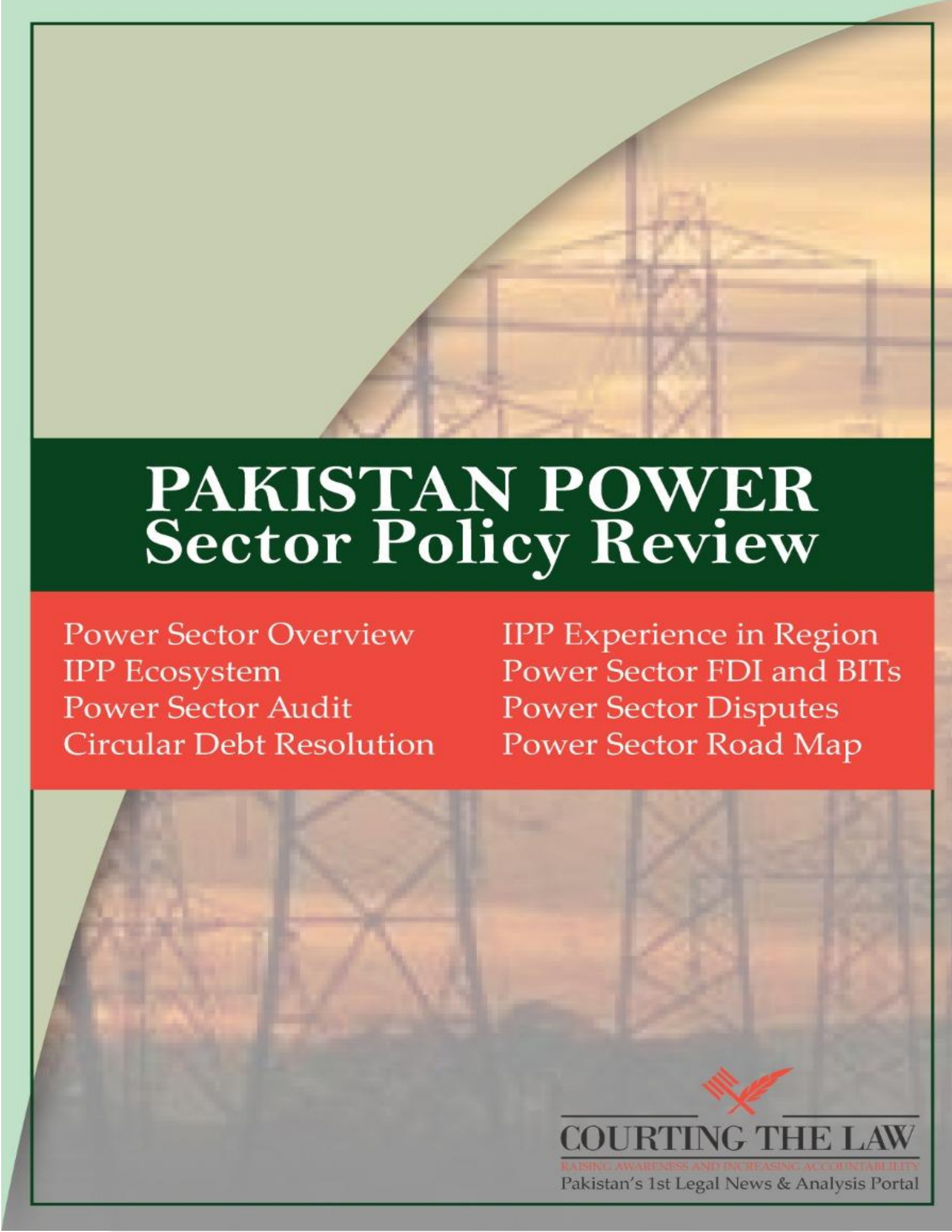

PAKISTAN POWER
Sector Policy Review

Power Sector Overview
IPP Ecosystem
Power Sector Audit
Circular Debt Resolution
IPP Experience in Region
Power Sector FDI and BITs
Power Sector Disputes
Power Sector Road Map

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This is a voluntary legal research work, subject to review and update from time to time, and nothing contained herein constitutes legal advice.

This version of the document was finalized by the contributors during the month of February 2021 with a view to providing a useful overview of the legal issues and options to the stakeholders in Pakistan as they undoubtedly consider such matters at various Governmental, political and research forums.

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1. POWER SECTOR OVERVIEW

1.1. Introduction

At the time of creation of Pakistan in 1947, Pakistan inherited an installed power capacity of 60 Megawatt (MW).[1] The Electricity Act, 1910, governing the supply and use of electrical energy, continued to be in force whilst different provincial legislations were also in place concerning the same. The first formal policy guideline for power development, developed by the Planning Commission of Pakistan, came in the First Five-Year Plan (1955-1960). The plan envisaged increasing the supply of electric power sufficiently enough to overtake essential demands by 1960, with the expected installed capacity to rise to 850 MW. The plan also contemplated a vertically-integrated power utility by stating that "effective and unified organisations for water and power development are necessary to design, construct, and operate major interdependent works".

As a realization of the First Five-Year Plan, the West Pakistan Water and Power Development Authority Act (WAPDA), 195*8* (the "**WAPDA Act**") was passed to form WAPDA to provide for "the unified and coordinated development of the water and power resources of West Pakistan." It catered entirely to West Pakistan with the exception of the then capital of Karachi and prescribed special areas. Section 8(2)(ii) of the WAPDA Act gave the power to WAPDA to frame schemes for "generation, transmission and distribution of power; and the construction, maintenance and operation of power houses and grids". Additionally, Section 11 gave WAPDA control over the operation of all power houses and grids. It was not until the Federal Adaptation of Laws Order, 1975 that its scope was changed to "Pakistan, except the Districts of Karachi" and it became an authority under the Federal Government of Pakistan. The application of the WAPDA Act did not extend to Karachi. The power sector has seen consideration reform since then, becoming unbundled in the process with different players emerging in power generation, transmission and distribution which are explained later in the document.

The relevant authority on the governance of electricity and power supply for Karachi was then KESC. It was established as a vertically-integrated power utility initially formed in 1913 as a private company to meet the power needs of Karachi. It continued to serve Karachi as a private company despite the creation of Pakistan. However, in 1952 the Government of Pakistan nationalized the company. Thereafter, it continued to manage generation, transmission and distribution of electricity to Karachi. Subsequently, in 2005, Karachi Electric Supply Corporation was privatized and now functions as K-Electric, with government retaining some shares.

In the area of nuclear power, the Pakistan Atomic Energy Commission was set up by the Pakistan Atomic Energy Commission Ordinance, 1965. It established its first nuclear power reactor in 1972 with a total gross capacity of 137 MW.[2]

Pakistan also has a developing renewable energy sector, with plants established under Policy for Development of Renewable Energy for Power Generation 2006 employing small hydro, wind and solar technologies. The Alternative and Renewable Policy 2019 was recently approved in August 2020 by the Council of Common Interests.

[1] Bacon, R., 2019. *Learning From Power Sector Reform: The Case Of Pakistan*. [online] World Bank Group, p.9. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 8 May 2020].

[2] Paec.gov.pk. n.d. *Nuclear Power*. [online] Available at: <http://www.paec.gov.pk/NuclearPower/> [Accessed 10 May 2020].

1.2. Constitutional Framework for Electricity

Before assessing the performance of power generation in Pakistan from 1960s to 1990s, it is necessary to have an understanding of the development of the constitutional framework concerning the power sector before 1994.

At the time of the creation of Pakistan, the Government of India Act, 1935 was adopted by Pakistan through the Pakistan (Provisional Constitution) Order, 1947. The legislative subject of 'electricity' was a part of the Concurrent Legislative List in Seventh Schedule List 3 Part 2 Item No. 31 subject to Article 126 (2) of the Government of India Act. This meant that while both the federal and provincial government could legislate on electricity, the federal government could also give directions to a province for carrying out execution regarding it.

1.3. Timeline of the Constitution of Pakistan

The 1956 Constitution repealed the Government of India Act. Electricity was made a part of the Provincial List in *Fifth Schedule Entry 56 subject to Article 106.* This meant that the provincial government was competent to legislate on matters concerning electricity. It was under this constitutional framework that the WAPDA Act was passed, with effect invoking the provincial nature of the governance of electricity at the time of enactment due to electricity being a provincial subject. It is worth noting that at the time, West Pakistan was a province.

The 1956 Constitution was suspended by a Presidential Proclamation made on 7 October 1958 which imposed a martial law in the country. The 1962 Constitution was the constitution that repealed the Presidential Proclamation passed on 7 October 1958. There was no mention of electricity in the Central Legislature List in the Third Schedule. Moreover, as per Article 132, the provincial legislature had the power to make laws on any matters not mentioned in the Third Schedule. Thus, electricity implicitly remained a provincial subject. The 1962 Constitution remained in force till 1969.

The 1973 Constitution provided explicit focus on electricity. The Council of Common Interests established under Article 153 was specifically tasked, among other things, in Article 154 with formulating and regulating policies in relation to electricity. Article 157 was titled as 'Electricity' and gave the Federal Government the power to construct 'hydro-electric or thermal power installations or grid stations for the generation of electricity." Moreover, it handed certain powers to the provincial government in relation to electricity. Electricity was also made a part of the Concurrent Legislative List in Fourth Schedule Part II Entry 34. This resembled the position under the Government of India Act and electricity became both a federal and provincial legislative subject. The Federal Government was entitled to give directions to the provincial governments in relation to matters concerning electricity under Article 149. In case of a conflict between the federal and provincial law, the federal law was to prevail as per the provisions of Article 143. It was under this constitutional framework that the WAPDA Act became a federal legislation through the Federal Adaptation of Laws Order, 1975. It should be noted that following the Eighteenth Amendment to the 1973 Constitution, this is no longer the position and electricity is now a part of the Federal Legislative List in Fourth Schedule Part II Entry 4 of the 1973 Constitution.

1.4. Performance of WAPDA and the road to unbundling

In the early years, WAPDA performed well and by 1977, it had added 2500 MW capacity to the

national grid with the construction of the Tarbela Dam and Mangla Dam. Such was the success that it was observed that the integrated power system was becoming too large to be handled by WAPDA alone. However, the fourth Five-Year Plan (1970-1975) raised significant concerns. It stated that "serious doubts having been expressed about the ability of WAPDA to shoulder the responsibility of retail distribution of power, along with the construction of major power and irrigation facilities. Consideration, therefore, should be given to the bifurcation of the power wing from WAPDA." An alternative strategy to hand over the retail distribution to an 'autonomous' power corporation was also proposed. The coup of 1977 however led to a period of stagnation with regards to developments in the power sector.[3]

The situation did not improve and during the 1980s, matters changed for the worse. This resulted in breakdowns, power outages and shortages throughout the country. After severe power outages in 1986, the government was forced to turn towards the IMF for assistance to deal with the fiscal and external account deficits that had accumulated and were partly linked to subsidized tariffs charged to consumers.[4]

With a foreseeable increase in electricity demand, additional generation capacity was needed. The Sixth Five-Year Plan (1983-88) encouraged the private sector to set up electricity generating facilities to sell power to WAPDA at predetermined rates. The initial response was not encouraging, due to ambiguity in pricing arrangements and no suitable potential projects being identified.[5] The first formal policy for private sector investment in the power sector was the BOO (Build-Own-Operate) policy issued in 1986. However, due to time consuming negotiations in relation to project documents, electricity prices which were not internationally competitive, and unclear concessions and facilities, the policy proved to be unsuccessful.

With much encouragement from the World Bank, the first big step in the direction of private electricity generation was taken in the form of the Hub Power Project (HUBCO), a 1,292 MW, USD 1.6 billion project which gained global acclaim from investors. It was called among other things as the "Deal of the Decade" by the Euromoney Institutional Investor and labelled as the "best energy policy in the whole world" by the then United States Secretary of Energy, Hazel O'Leary. It is said that the generous terms offered in this deal became the basis of the National Power Policy of 1994.[6]

The following information has been provided by HUBCO in the history and development of the Hub Power Project. They state that "In 1985, the Government of Pakistan, with the help of the World Bank, developed a long-term energy strategy which envisaged the involvement of private investors in power generation. The objective was to meet the increasing demand for power in the country, in the most efficient and effective way to achieve the levels of growth the Government had set for the economy. A year later, the development of the Hub Power Project began. The Government requested the sponsors led by Xenel Industries of Saudi Arabia to present proposals for a 1292 MW plant. The World Bank shortly thereafter became involved with the sponsors in the development process and set about establishing the support of a number of governments as co-financiers in the Private Sector Energy Development Fund for Pakistan. An appropriate location

[3] Bacon, R., 2019. *Learning From Power Sector Reform: The Case Of Pakistan*. [online] World Bank Group, p.10. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 10 May 2020].
[4] ibid. p11
[5] World Bank, 1983. *Pakistan Review Of The Sixth Five-Year Plan*. [online] Washington, DC: World Bank, p.79. Available at: <http://documents.worldbank.org/curated/en/778771468285335567/pdf/multi-page.pdf> [Accessed 10 May 2020].
[6] Munir, K. and Khalid, S., 2012. Pakistan's Power Crisis: How Did We Get Here?. *The Lahore Journal of Economics*, 17(SE), p.74.

was identified in an area near the estuary of the Hub river in Balochistan, about 40kms north-west of Karachi. At the conclusion of a full feasibility study in 1988, a construction consortium led by Mitsui of Japan was selected on the basis of a minimum functional specification for the plant, two members of which were later replaced following tender procedures. British Electricity International which later became a wholly owned subsidiary of National Power of the United Kingdom, entered into a contract for the operation and maintenance of the plant. The plant was designed to meet the World Bank's environmental requirements.

In 1991, Hubco was incorporated in Pakistan as a limited liability company for the purpose of implementing the project. During the three years that followed, a series of agreements were negotiated between Hubco and the Government of Pakistan and certain of its institutions, the construction consortium and National Power. It was on the basis of these agreements that long-term finance was raised without direct guarantees from the Government. In addition to support from the World Bank and other governmental and multilateral sources, including the governments of France, Italy, Japan, the United Kingdom and the United States under the Pakistan Energy Development Fund, the World Bank and the Import/Export Bank of Japan jointly developed an Expanded Co-financing Operations Programme to assist the international commercial debt funding by the provision of a partial guarantee. A significant portion of the offshore debt was also guaranteed by certain export credit agencies. Rupee debt was provided by a group of local banks led by the National Development Finance Corporation of Pakistan. Debt syndication was completed during the last quarter of 1994 and by the end of the year, the full financing, including equity was in place.

This was the single largest issue of domestic shares at one time. Financial closure was finally achieved in January 1995, when all consents and conditions precedent had been secured and the first tranche of the senior debt was draw down."[7]

The aforementioned severe power shortages, coupled with the increasing doubt over the ability of WAPDA to handle the entire power sector led to the Government of Pakistan to issue a plan titled "Power Sector Strategic Plan for Restructuring and Reform" in 1992. Some of its aims included unbundling, regulating and privatizing the existing generation and distribution components, and to attract private power sector investment.[8] While this plan was not materialized due to regime change, these developments ultimately led to the National Power Policy of 1994.

1.5. 1994 Power Policy

At the time of introduction of the policy, Pakistan faced insufficient capacity and load shedding. Electricity was available to only 40% of the population and the per capita consumption was at a low. In light of the projected increase in demand, approximately 8% yearly for the following 25 years, and given the impossibility of funding such an increase with public sector funds, the GOP decided to call on the private sector for support. The GOP suggested improving the prior policy of 1986 on BOO power projects and identified the following reasons for the slow progress under such policy:

[7] The Hub Power Company. n.d. *History – HUBCO*. [online] Available at: <https://www.hubpower.com/history/> [Accessed 10 May 2020].
[8] Bacon, R., 2019. *Learning From Power Sector Reform: The Case Of Pakistan*. [online] World Bank Group, p.11. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 10 May 2020].

i. time consuming negotiations in relation to the project documents;

ii. electricity sale price not internationally competitive; and

iii. unclear concessions, facilities and import/tax regime.

To overcome these difficulties, which had discouraged both local and international private investment, GOP issued the Power Policy of 1994 a comprehensive policy package to attract investors and accelerate the development of the sector. The main features of this policy were as follows.

i. Free choice of site, fuel/energy source and technology (including hydro and renewable energies, with the only exclusion of hydro power projects on the river Indus).

ii. Tariff for bulk purchase of power, with a Bulk Tariff of US Cents 6.5/kWh as average for the first 10 years of the project (paid in Pak Rupees) and US Cents 5.9/kWh (Rs 1.776/kWh) over the life of the project, with a premium of US Cents 0.25/kWh for the first ten years for projects above 100 MW commissioned before 1997. The policy provided details of the applicability of the tariffs and the payment terms. The IPP must provide the yearly tariff throughout the life of the project subject to the figures above. The policy provided for indexation of tariffs based on Rupee/Dollar exchange rate, fuel price and inflation.

iii. Limited recourse financing i.e. no sovereign guarantee on repayment.

iv. Establishment of a Private Sector Energy Development Fund which could provide up to 40% of the Capital Cost.

v. Measures taken to facilitate local financing of projects, including permission to power generating companies to issue Corporate Bonds and shares at discounted price, permission:

a. to foreign banks to underwrite issues of shares in project companies, and

b. to non-residents to freely purchase securities,

recommendation to State Bank to allow 80:20 equity ratio.

vi. Fiscal incentives included exemption from corporate income tax, custom duties on plant and equipment, sales tax and other taxes, free repatriation of equity and dividends and, as the sector was classified as an industry, eligibility for all concessions available to industrial projects. There was no requirement for a local partner and the project can raise local and foreign finance.

vii. The GOP proposed standard form agreements (Concession Agreement, PPA, Fuel Supply Agreement) to avoid lengthy negotiations on an ad hoc basis. The PPA (term of 15 to 30 years) and the Fuel Supply Agreement (if fuel is supplied by the public sector) were

guaranteed by the GOP with additional protection provided for changes in tax/duties, some force majeure risk, and convertibility of rupees.

viii. The prior policy involved a number of government organizations whereas this policy created a Private Power Board as one window operation for the sector to streamline and simplify processes.

ix. The GOP was to issue a Statutory Revisionary Order to consolidate incentives and concessions in order to ease implementation.

x. Projects were free to arrange for fuel by either importing it or entering into a Fuel Supply Agreement with the public or private sector. Fuel price remains in all cases a "pass-through".

xi. Applications could be submitted by interested investors as:

a. unsolicited proposals through a process that includes investor registration, delivery to the applicant of model agreements, payment of an application fee and review of the proposal by the Private Power Board, to be followed by a LOI if the project was deemed viable, the provision of a Performance Guarantee by the project owners and finally the issue of a LOS and the execution of the project agreements, or

b. solicited proposals, with tenders to be advertised on the international press; bidders was to be ranked according to the tender criteria with premium to bidders that propose the minimum project completion time. The Policy applies also to all projects in the pipeline at the time of its adoption. The GOP plans to publish a list of preferred locations for upcoming projects.

xii. The power under this policy will be purchased at the outgoing interconnection point of the plant substation, the transmission line for interconnection with the national grid will be provided by WAPDA/KESC.

xiii. The Bulk Power Tariff under this policy was valid from 1 January 1994 to 31 December 1994. The US Cents 0.25//kWh premium was applicable to projects commissioned by the end of 1997. Bulk Power Tariffs are to be revised and announced annually.

xiv. The GOP promoted self-generation by the industrial sector through offering purchase options for surplus power and, in case of industries located in rural areas, encouraging the establishment of a rural distribution network, for which incentives are planned to be offered.

The Policy included two annexes. The first annexure set out the detailed procedure for the calculation of the Bulk Power Tariff and the second annexure set out the tariff applicable to sellers under the industrial self-generation scheme.

Altogether, 16 IPPs were set up under the Power Policy 1994 for an installed capacity of about 4784MW.

1.6. 1995 Power Policy

The 1995 Power Policy came in light of the increased enthusiasm shown by the private investors for thermal plants. The GOP, in a bid to encourage proposals for power generation based on hydel resources, formulated the 1995 Power Policy. GOP felt that hydel power was a cheaper alternative, capable of utilizing natural resources, to involve Pakistani entrepreneurs and increase economic growth in comparatively less developed areas of Pakistan. The main features of this policy were as follows.

ii. Free choice of site to propose hydel power plants on tributaries and canal systems in any location were made available and the ability to choose any equipment was granted under the policy. Hydropower plants with seasonable storage, however, were only allowed on streams and tributaries. Investors were to be provided a list of all preferred sites suitable for power plants.

iii. All feasible hydropower plants with capacity of up to 300 MW of run-of-the-river type or with a nominal poundage for absorption of daily fluctuations were covered under the policy. The plants requiring reservoirs for seasonal poundage on all rivers except on streams and tributaries as well as plants located on the main rivers (Indus, Jhelum, Chenab, Ravi and Sutlej) were excluded from the private sector under the policy.

iv. A feasibility study of acceptable international standards was required before development, with the choice to carry it out in the public or private sector. Some feasibility studies undertaken in the public sector were made available against payment of a fee. Measures were also taken to facilitate the pace of feasibility studies, including special measures by the then Government of North West Frontier Province (now Khyber-Pakhtunkhwa).

v. There was limited recourse available on financing and no sovereign guarantee given. Local funding arrangements were set up under the Private Sector Energy Development Fund to cover 30% of capital costs with a variable interest rate and a maturity period of up to 23 years, including a grace period of up to 8 years.

vi. A minimum requirement was imposed for equity investment with 20% of total capital as the cost of the project.

vii. Measures were introduced to facilitate local financing for projects. These included the permission granted to power generation companies to issue corporate bonds, the permission to issue discounted shares, the permission issued to foreign banks to underwrite the issue of shares and bonds by private power companies, upon approval the same tax facilities were given to private sectors instruments as were available to Non-Banking Financing Institutions, the recommendation given to the State Bank of Pakistan for modification of prudential regulations to allow a 80:20 debt equity ratio, abolition of the 5% limit on investment of equity in associated undertakings, and an independent rating agency was allowed to commence operations.

viii. Private sector hydro projects were not subject to Article 161 (2) of the 1973 Constitution. It stated, “The net profits earned by the Federal Government, or any undertaking established or administered by the Federal Government from the bulk generation of power at a hydro-electric station shall be paid to the Province in which the hydro-electric station is situated.”

ix. Tariff price for use of water was set at US Cents 0.233/Kwh (Rs. 0.07/Kwh), payable in Pakistan Rupee. This amount was to be deducted by WAPDA from all payments made to the investor for purchase of energy.

x. The fiscal incentives given by the GOP in March 1994 were restated.

xi. Model Implementation (Concessions) Agreement (IA) and Power Purchase Agreement (PPA) were prepared for private hydropower projects to avoid lengthy negotiations. PPIB, however, would only execute IA and PPA if they were satisfied that the interconnection of the project to the national grid was technically feasible, and met the criteria for project feasibility as set in the policy.

xii. Protection was provided against specific force majeure risks and for changes in certain taxes and duties, convertibility of Rupee was ensured and remittance ability of foreign exchange to cover necessary project expenses was granted.

xiii. The ownership of a hydropower project was to be transferred to the GOP free of charge after 25 years of operation. The original investor would have first choice in obtaining the lease for operation and maintenance of the station from the Government.

xiv. To facilitate implementation, the GOP was to issue a separate to consolidate incentives and concessions.

xv. Instead of a one-window procedure, a LOI and a LOS were to be issued by provincial governments, however, these would not bind the GOP.

xvi. Applications could be submitted by interested investors as:

a. unsolicited proposals to concerned provincial agencies in a process which involves payment of applicable fees, screening and evaluation of proposal, feasibility studies, investors furnishing a performance guarantee, and approaching PPIB for signing of IA and PPA;

b. solicited proposals against reserved sites via open bidding. The process would involve receiving bids against advertised projects, evaluation by a committee, issuance of LOI to the first ranked party, and approaching PPIB for signing an IA and PPA, with payment of all applicable fees.

xvii. WAPDA would purchase power under a long-term contract covering the concession period.

xviii. The applicable bulk power tariff to private sector for Hydropower plants up to 20 MW was set at US Cents 6.1/Kwh to be paid in Pakistan Rupee, an average based on the ten years of sale of electricity. A levelized tariff of US Cents 5.57/Kwh for the first 25 years (without FERI) was also calculated to provide flexibility to work out a year's worth of tariff for investors. For Hydropower plants between 21 MW and 300 MW, a bulk power tariff of US Cents 6.0/Kwh was to be paid in Pakistan Rupee as average for the first ten years for sale of electricity. A levelized tariff of US Cents 4.7/Kwh for the first 25 years of the project was also calculated to provide

flexibility to investors. The bulk purchase tariff for hydropower plants above 300 MW, and those plants with seasonal reservoirs was to be decided on a case by case basis.

xix. Where the terms concerned payment of bulk power tariff, energy available from hydropower plants was to be given highest priority in load despatch, and payment was to be made on the basis of actual energy sold during a month. In case of non-despatch by WAPDA, the payment would be on the basis of the ninety five percent of energy that could have been generated by the hydropower plant based on the historic hydrology for that month. The amount was payable on a monthly basis and set as a “take or pay” basis.

xx. The investors of private power projects were to provide a yearly tariff profile for the first 25 years of the project, and it was to be accepted subject to different conditions for Hydropower plants up to 20 MW and between 21 MW and 300 MW. A breakup of tariff was also provided by the GOP.

xxi. The variable O&M cost was directly escalable from financial close against exchange variations of Pakistani Rupee to US Dollar, with the US inflation rate as determined by the State Bank of Pakistan and the CPI as published by the IMF.

xxii. The escalable component was to be indexed from financial close against Rupee/Dollar movement inclusive of the US inflation rate as determined by the State Bank of Pakistan and from the CPI as published by the IMF.

xxiii. The non-escalable component was to be bifurcated into a foreign currency and local currency component in the ratio to be determined at the financial close. The foreign currency component will be indexed against Rupee/Dollar movement from tile COD during the repayment period of the foreign currency loans.

xxiv. Some of the assumptions behind bulk power tariff were that the Rupee/Dollar exchange rate would be 1US$: Rupee 30.00, and the SBP TT&OD selling rate will apply for any changes. The companies incorporated for the sole purpose of power generation were assumed as exempted from corporate tax on the income generated from revenues out of sale of electricity. Non-resident lenders were assumed to not be liable to taxation in Pakistan.

xxv. For the protection of the environment, an environmental impact assessment was considered necessary for every project that could adversely affect the environment.

xxvi. WAPDA was to purchase power for interconnection to the national grid at a technically and economically acceptable point.

xxvii. Government promoted self-generation for Industrial units; they were not required to get permission and could freely choose any site/location, except those proposed to be located on irrigation canals. An option to sell surplus power was also provided.

xxviii. The 1995 Power Policy had no Annexures and information regarding calculations was provided within the main document.

1.7. 1998 Power Policy

This policy came in light of the unbundling of the power sector and restructuring of WAPDA. WAPDA's role was limited to maintenance of existing dams, building of additional dams on main rivers and generating electricity from these dams. A new body, the National Electric Power Regulatory Authority (NEPRA), was given oversight of the power sector and control through the power to license power generation, transmission and distribution alongside tariff regulation. The aim was to encourage competition in the future with a model where all future investments in the power generation, transmission and distribution facilities were to be market driven and without intervention from the GOP. However, while this structure was being established, a new IPP policy was enacted to encourage investment. Though no projects were set up under this policy, the main features of the policy were as follows.

i. It was envisaged that power can be sold on contracts which can later be assigned to privatized distribution companies or the national grid company.

ii. The GOP expressed intention to solicit bids for hydel and indigenous coal-fired projects and other types of projects could follow in future. The GOP was desirous of shifting focus away from oil and gas fired power plants, which were based on imports.

iii. In a major departure from previous policies, a competitive process was favoured instead of a "cost plus" approach. A minimum levelized tariff through International Competitive Bidding was to be the basis of selection for the IPPs. A process of pre-qualification, issuance of a Request for Proposals (RFP), bidding and evaluation of bids against bid criteria laid out in RFP was to be followed.

iv. Blanket exemptions from all duties and taxes in previous policies were removed. Companies were to operate according to applicable tax laws of Pakistan.

v. Detailed feasibility studies were mandatory.

vi. Hydel projects were to be implemented in Build-Own-Operate-Transfer (BOOT) basis, with transfer to the province at the end of concession period. Thermal projects were subject to a Build-Own-Operate (BOO) basis.

vii. The GOP was to guarantee that terms of executed agreements, including payment terms were maintained during and after the transition to private sector companies as a result of the restructuring proposed under this policy.

viii. NEPRA was assigned the role to approve a tariff for a project before a LOS could be issued by the PPIB.

ix. The One-window support at Federal level was reinstated. The PPIB was to assist in coordination with the government and carry out negotiations of the IA and LOS.

x. One-window support was also provided on provincial level, this was a departure from the 1995 Power Policy. Provincial power departments or AJK Private Power Cell (PPC) were to issue pre-qualification documents, pre-qualify bidders, issue bidding documents, and evaluate bids.

xi. The following timeline was provided:

a. Pre-qualification for specific projects - the Provincial or AJK PPC (in consultation with PPIB and power purchaser), as the case may be, will invite applications for registration and submission of pre-qualification documents through the press and all other channels normally prescribed by the Asian Development Bank and the World Bank – 25 days.

b. Submission of pre-qualification documents to Provincial or AJK PPC, as the case may be – 30 days.

c. Evaluation of documents and notification to pre-qualified bidders by Provincial or AJK PPC (in consultation with PPIB and power purchaser), as the case may be – 30 days.

d. Invitation to bid to pre-qualified bidders by Provincial or AJK PPC, as the case may be, and collection of bidding documents – 10 days.

e. Time allowed for submission of bids to Provincial or AJK PPC, as the case may be, along with bid bond/performance guarantee in favour of PPIB – 120 days.

f. Evaluation of bids and notification of winning bidder by Provincial or AJK PPC (in consultation with PPIB and power purchaser), as the case may be – 60 days.

g. Issuance of LOS by PPIB – 15 days.

xii. A main sponsor with 20% equity stake in the project was a precondition for bidding, along with not being involved in a litigation or arbitration against the GOP. There were other preconditions as well.

xiii. The RFPs were to specify the following in most cases:

a. type of Project (hydel, indigenous coal, gas etc.);

b. net capacity (MW);

c. reference annual plant factor (%);

d. transmission arrangements including the point of delivery to the power purchaser;

e. maximum acceptable levelized tariff (optional);

f. term of PPA;

g. specific allowances for scheduled maintenance and excused forced outages; and

h. tariff regime including evaluation criteria.

xiv. The bid with lowest evaluated levelized tariff was to be ranked the highest.

xv. Unsolicited bids were permitted for hydel and indigenous coal projects. If the feasibility study was approved, bidding would take place. The initial sponsor was to be offered to undertake the project on the lowest tariff offered in the bid. Upon rejection, the successful bidder was to repay a reasonable amount and independently audit the cost of feasibility study to the initial sponsor.

xvi. Fees were to be paid in US Dollars and were subject to revision. A performance guarantee of US$ 5,000 was required from a successful bidder.

xvii. The tariff was to be denominated in Pakistan Rupees.

xviii. Tariffs were to be quoted by bidders in two parts:

a. EPP; and

b. CPP,

whereas, water use charge, set by provinces and AJK, was to be included in the energy purchase price.

xix. Separate components could be provided in bids which are subject to adjustment for variations between US Dollar and Rupee and were to be effected quarterly. A true up on exchange rate fluctuations in excess of 5% during a month were allowed on a monthly basis. Components could be included which were escalable for rupee inflation.

xx. Measures to facilitate financing included:

a. permission for power generation companies to issue corporate bonds,

b. permission to issue shares at discounted prices,

c. permission for foreign banks to underwrite the issue of shares and bonds by the private power companies

d. same tax facilities for private sector instruments as available to non-banking financing institutions subject to approval,

e. State Bank of Pakistan’s Prudential Regulations must be adhered to;

f. removal/reform of Section 13 of Foreign Exchange Regulation Act 1947 to enable non-residents to purchase securities issued by Pakistani companies without State Bank's permissions,

g. Abolition of 5% limit on investment of equity in associated undertakings,

h. An independent rating agency was allowed to commence operation in Pakistan, and

i. A LTCF facility was available to provide long term low interest loans for a portion of the project funds.

xxi. Fiscal incentives included that:

a. Hydel power plants and power plants based on indigenous coal were allowed a 90% First Year Allowance (FYA), for the cost of plant, machinery and equipment,

b. companies were allowed to import plant and equipment on payment of customs duties, sales tax, flood relief and other surcharges as well as Import License Fees,

c. Repatriation of equity along with dividends was freely allowed,

d. Private parties could raise local and foreign finance in accordance with regulations applicable to industry in general. GOP approval was required,

e. orders received by local engineering and manufacturing companies from private power companies were treated as an export for refinance under the State Bank of Pakistan's export finance scheme.

xxii. A security package was proposed which included standard IA, PPA, FSA, WUL and other relevant agreements.

xxiii. Some obligations of the GOP as a part of the security package were to guarantee the contractual obligations of involved agencies such as WAPDA and KESC, and provinces, despite the fact that some may be privatized during the term of various agreements and protection was provided against specified “political” risks.

xxiv. All environmental guidelines of the GOP were to be satisfied. This was a departure from the 1995 Power Policy position which required an environmental impact assessment. Power plants based on renewable resources were encouraged.

xxv. The GOP bore the risk of availability of water by offering fixed monthly capacity payments to a hydel project. RFP was to include arrangements needed to monitor and record water flow.

xxvi. Project companies were to be penalized if the efficiency of the power plant was down, or generation of electricity was reduced for any reason other than the water flow. Sponsors were to quote the generation efficiency curve.

xxvii. For thermal projects fuelled by any source other than indigenous coal, no guarantee was given by the GOP and bidders could choose their own fuel arrangements.

xxviii. Special incentives could be announced for small power plants serving locations not connected or likely not to be connected to the national grid in that foreseeable future.

1.8. 2002 Power Policy

With a new regime in 2002, the GOP introduced a new power policy. It acknowledged failure of the previous 1998 Power Policy to attract private power investors. The GOP wished to create an environment and provide incentives which attracted investors, and also kept consumer prices low. The main features of this policy were as follows.

i. Similar to the wording used in 1998 Power Policy, the GOP indicated its intention to restructure and deregulate the power structure from state-owned utilities to decentralized unbundled power sector with substantial private ownership to encourage a competitive environment.

ii. The transition period was planned as an evolutionary process over time from active solicitation of offers to build power plants, to selling power under contracts to public sector utilities which can be assigned to privatized distribution companies, NTRD or other successors. This was similar to the wording used in the 1998 Power Policy.

iii. Emphasis was placed on hydel, coal & gas-based power plants, similar to 1998. A list of projects was provided.

iv. Basis of bid selection was to be a minimum levelized tariff, either through International Competitive Bidding (ICB) for solicited proposals or through negotiations/ICB for proposals on raw sites. A process of pre-qualification, issuance of a Request for Proposals (RFP), bidding and evaluation of bids against bid criteria laid out in RFP was to be followed. This was again similar to 1998 Power Policy.

v. A feasibility study was again made mandatory before submission of bid.

vi. Similar to the 1998 Power Policy, hydel projects were to be implemented on a BOOT basis, however, thermal projects could be established on either BOOT or BOO basis. At the end of the concession period, BOOT projects were to be transferred to the GOP.

vii. Competitive tariffs were to comprise EPP and a CPP with adequate provision for escalation. CPP in hydel projects was set at approximately 60% to 66% of levelized tariff.

viii. The GOP was to guarantee terms and conditions of executed agreements, such as the IA, PPA, FSA, GSA, CSA, WUL, including payment terms, for projects above 50 MW. This was a similar position to the 1998 Power Policy, except the minimum capacity cap.

ix. Concessionary rates for import of plant and equipment not manufactured locally. Companies were exempted from payment of income tax. This exemption was not available to oil-fired power plants.

x. Local engineering industry was encouraged to form joint ventures with foreign companies.

xi. One window support was provided to IPPs by PPIB. The PPIB was to provide a one-window facility for implementation of projects above 50 MW capacity, and issue the LOI and LOS, prepare pre-qualification and bid documents, pre- qualify the Sponsors, evaluate the bids of pre-qualified sponsors, assist the Sponsors/project companies in seeking necessary consents/permissions from the government, carry out negotiations on the IA, assist the power

purchaser, fuel supplier, Provincial/AJK authorities in the negotiations, execution and administration of the PPA, FSA/GSA/CSA and WUL respectively, issue and administer the GOP Guarantee backing up the power purchaser, fuel supplier, Provincial/AJK Government's contractual obligations, and follow up on implementation and monitoring of the project.

xii. A single sponsor holding at least 20% equity in the project was one of the necessary pre-qualifications, much like the 1998 Power Policy. A new pre-condition was added that a sponsor should not own more than 25% of total generation in Pakistan. It is possible that the GOP did not want to place heavy reliance on any single power producer. The requirement to not be in arbitration or litigation with the GOP was not included this time. It should be noted that the HUBCO arbitration[9], litigation[10] and ultimate settlement[11] took place between the 1998 Power Policy and 2002 Power Policy.

xiii. The bid with the lowest evaluated levelized tariff was to rank the highest, a similar position as enacted in the 1998 Power Policy.

xiv. Upon tariff approval by NEPRA for a raw site project, LOS was to be issued against a performance guarantee of the value of US$ 5000 per MW in favour of PPIB.

xv. All fees were to be paid in US Dollars.

xvi. The tariff was to be denominated in Pakistan Rupees. Bidders were required to quote tariff in two parts:

    a. EPP, and

    b. CPP.

xvii. Separate components could be provided in bids which were subject to adjustment for variations between US Dollar and Rupee and were to be effected quarterly. Exchange rate fluctuations in excess of 5% during a month were allowed. Components could be included which were escalable for rupee inflation.

xviii. Measures to facilitate financing included:

    a. permission for power generation companies to issue corporate bonds,

    b. permission to issue shares at discounted prices,

    c. permission for foreign banks to underwrite the issue of shares and bonds by the private power companies,

[9] ICC Arbitration Case No. 10045/OLG
[10] PLD 2000 SC 841
[11] DAWN, 2001. *Hubco, Wapda to withdraw cases*. [online] Available at: <https://www.dawn.com/news/1576/hubco-wapda-to-withdraw-cases> [Accessed 12 May 2020].

d. non-residents to purchase securities issued by Pakistani companies without SBP's permissions,

e. abolition of 5% limit on the investment of equity in associated undertakings, and

f. an independent rating agency was allowed to commence operation in Pakistan.

xix. Fiscal incentives included that:

a. customs duty at a rate of 5% on import of plant and equipment not manufactured locally,

b. no levy of sales tax on plant, machinery and equipment,

c. private parties could raise local and foreign finance in accordance with regulations applicable to industry in general. GOP approval was required, and

d. repatriation of equity along with dividends was freely allowed.

xx. A security package was proposed which included standard IA, PPA, FSA, WUL, GSA, and CSA.

xxi. Some obligations of GOP as a part of the security package were to guarantee the contractual obligations of involved agencies such as WAPDA and KESC, and provinces, despite the fact that some may be privatized during term of various agreements and protection was provided against specified "political" risks, and change in taxes and duties.

xxii. In a departure from the 1998 Power Policy position and reinstating a position similar to the 1995 Power Policy, all requirements of PEPA Act 1997 were to be met, including environmental impact and social soundness assessment. Plants based on renewable resources were encouraged.

xxiii. For hydel projects, water use charge was fixed at Rs.0.15/Kwh, adjustable annually for inflation.

xxiv. The power purchaser, effectively GOP took risk of availability of water for hydel projects above 50 MW, by offering fixed monthly CPPs between 60% and 66% of total levelized tariff in accordance with monthly average hydrology. Project companies were to be liable for the value of electricity lost if the efficiency of the power plant were down, or generation of electricity was reduced for any reason other than the water flow. Sponsors were to quote the generation efficiency curve.

xxv. For all thermal projects, no guarantee was given by the GOP and bidders could choose their own fuel arrangements.

xxvi. For small power plants serving locations not connected or likely not to be connected to the national grid in that foreseeable future, strict adherence to the policy was not required.

xxvii. All projects set up under previous policies were to be governed by those respective policies.

Under the 2002 Power Policy, a total of 13 IPPs were set up for an installed capacity of 2,769 MW.

1.9. 2013 Power Policy

After a period of 11 years, a new power policy was enacted to support the current and future energy needs of the country. This came in light of the severe shortfall and electricity outages (12-16 hours daily) experienced in the preceding years. It was intended to provide relief to citizens of Pakistan. It did not elaborate on issues concerning operational strategy, nor did it lay out detailed implementation plans.

It identified challenges such as:

i. supply-demand gap of 4,500 to 5000 MW;

ii. expensive generation of electricity at ~Rs. 12 per unit due to dependence on thermal fuel sources;

iii. an inefficient power transmission and distribution system with 23-25% losses; and

iv. electricity theft costing over Rs 140 billion annually, which was causing high levels of subsidies and circular debt.

Cost of delivering electricity was estimated at Rs. 14.70 per unit, with true cost of delivering a unit of electricity was estimated to be higher than Rs. 15.60.

A set of goals and targets were identified to be met by 2017, including (a) decrease supply demand gap from 4500-5000 MW to 0, (b) decrease cost of generation from 12c/unit to ~10c/unit, (c) decrease transmission and distribution losses from ~23-25% to 16% and (d) increase collection from ~85% to 95%.

A principle of competition was to be built based on infrastructure development, up front tariff and competitive bidding, and key client management.

1.10. 2015 Power Policy

Two years after the 2013 Power Policy which identified challenges and solutions, the 2015 Power Policy was brought forward to offer enhanced incentives and simplified processes to power investors in an attempt to generate affordable electricity. In line with all previous policies, an effort was made to encourage indigenous resources-based plants. For the first time, safeguarding the environment was included as one of the main objectives of the policy. This is the current policy in place. The main features are as follows:

i. A one-window facility is being offered for implementation of all projects by PPIB and all relevant entities at provincial/AJK/GB level.

ii. Hydropower projects are processed under the International Competitive Bidding (ICB) where a bankable feasibility study and a detailed engineering design are available. The lowest evaluated levelized tariff will be the usual parameter for the award of a bid, but the RFP may specify other parameters. If a feasibility study exists but a detailed engineering design does not, the project can be awarded on the basis of the highest ranked applicant, with conditions. Similarly, for Raw-Site projects, solicited proposals will be awarded to the highest ranked applicant.

iii. Tariffs will be determined as per NEPRA or a provincial regulator's mechanism for tariff determination, or any other procedure as notified.

iv. Hydropower projects can be implemented on a BOOT basis or any other mode, with a 30-year concession period, after which the project will be transferred to the respective government for one (1) Pakistan Rupee. A WUC of Rs.0425/Kwh is applicable, subject to review after five years. Power purchases, effectively the government, bear the risk of availability of water by making payment of fixed monthly CPP component of tariff in accordance with monthly average hydrology.

v. Thermal power projects may be awarded on basis for international competitive bidding in solicited proposals, or in response to an expression of interest where upfront tariff has been announced by NEPRA. Provinces/AJK/GB may also award projects and PPIB can process them further upon recommendation. Thermal projects may be on a BOOT or BOO basis.

vi. Projects may also be processed and awarded where the GOP's international commitments or fast track implementation of projects or nature of projects requiring specific fuel, site, or financing is involved.

vii. Incentives/concessions available for private power projects are also available in public-private partnership.

viii. A bank guarantee will be accepted in US Dollars at $5000/MW, however it shall be payable in equivalent Pak Rupees at prevailing exchange rate at the time of encashment.

ix. The transmission line and interconnection with grid from the power complex can be (a) built, owned, maintained and operated by power purchaser, (b) built by company and transferred to power purchaser for ownership and operation, (c) built jointly by power purchaser and sponsors and then transferred to power purchaser for ownership and operation, or (d) any other arrangement as envisaged from time to time.

x. Standardized IA, PPA, and WUA are available.

xi. The GOP guarantees (a) payment obligations of power purchase when it is a federal entity, (b) on case to case basis provide the GOP guarantee to a Provincial/AJK/GB power project, (c) payment obligations of Provincial/AJK/GB governments under GOP IA, (d) protection against specified force majeure events as contained in standard IA, (e) protection against changes in taxes and duties regime related to power projects and (f) convertibility of Pakistan rupee into US Dollars, and the remittal of foreign exchange to cover necessary payments regarding the project.

xii. The tariff is being offered in two parts with Pakistan rupee denomination:

a. EPP; and

b. CPP.

xiii. In order to mitigate the exchange rate variation risk, specified adjustments for exchange rate variations of US Dollar, Pound Sterling, Euro and Japanese Yen are allowed. The adjustment related to debt servicing shall be allowed for the aforesaid currencies.

xiv. To ensure sustained interest of the Sponsor during the entire life of the project, the sum of EPP and non-debt related CPP (computed on a kWh basis at the reference plant factor) will remain constant or increase over time. The debt-related CPP stream may match the loan repayment stream, except in case of upfront tariff.

xv. During the life of the project operations, quarterly adjustments/indexations for local inflation, foreign inflation, exchange rate variations and interest rate variations will be made.

xvi. Financing of the projects will be in the form of equity and debt. Minimum equity is 20%, while maximum equity is 30%. In case equity is more than 30% of the capital cost, equity in excess of stipulated 30% shall be treated as debt.

xvii. Power plant companies are entitled for delayed payment interest at the rate of 3-months KIBOR plus 200 basis points as specified in PPA.

xviii. In case the plant is not available for despatch due to non-availability of fuel at site due to delayed payments by Power Purchase for specified numbers of days in the PPA, the power plant company shall be entitled for CPP and fixed portion of Energy Payments, if applicable, with ROE component reduced by agreed percentage as given in PPA.

xix. A minimum take or pay provision can be included in PPA.

xx. In a first, the governing law for direct agreements (PPA & IA) provided for English law when foreign lenders participated in these projects, which also provided an indemnity to the effect that if IA, PPA, or the GOP guarantee becomes unenforceable, illegal or invalid due to change in law, the GOP shall indemnify the project company or lenders for any cost, loss, or liability resulting from such a situation. In essence, the GOP took the entire risk and ultimate financial responsibility for all claims arising out of such a situation. This is not onerous because the expectation is that GOP will not pass any laws which affect enforceability, legality or validity of core project agreements or their guarantee until the agreed term of projects. Such a situation also takes into account the scenario where agreements are annulled by superior courts, as was seen in Karkey and Reqo Diq cases.

xxi. Measures to facilitate financing include:

a. permission for power generation companies to issue corporate bonds,

b. permission to issue shares at discounted prices,

c. permission for foreign banks to underwrite the issue of shares and bonds by the private power companies,

d. non-residents can purchase securities issued by Pakistani companies without SBP's permission,

e. abolition of 5% limit on investment of equity in associated undertakings, ‘

f. an independent rating agency is allowed to commence operation in Pakistan, and

g. 100% foreign ownership of companies is allowed.

xxii. Fiscal incentives include that (a) an attractive return on Equity / IRR allowed in tariff, (b) exemption from income tax, including turnover rate tax, and withholding tax on imports, (c) sponsors can import plant and equipment not manufactured locally at concessionary rate of 5% CD, (d) repatriation of equity along with dividends is freely allowed, and (e) parties can raise local and foreign finance in accordance with regulations applicable to industry in general. The approval by the GOP was required.

xxiii. The 2015 Power Policy is applicable to new power projects. Projects with valid LOS under the 2002 Power Policy, or the 2010 guidelines will continue to be governed under those terms and conditions. However, projects having valid LOI as of 15 February 2015 under Policy 2002, or 2010 Guidelines were allowed to opt for the 2015 Power Policy within one month, subject to certain conditions. The 2015 Power Policy also has no applicability to the Renewable Energy Policy 2006.

A total of seven projects were initiated under this policy for an installed capacity of 8,253MW.

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2. THE IPP ECOSYSTEM

2.1. Current power sector structure

Pakistan's power sector has evolved following the unbundling and privatisation of the sector that started in 1994. On the conventional power production side, that is to say thermal and large hydel power projects; PPIB remains the focal point and one-window facilitator on behalf of the GOP. Small hydro projects, wind and solar projects together with other projects fall under the domain of the AEDB in respect of which a separate policy exists, namely the Alternate and Renewable Energy Policy 2019.

From a vertically integrated state market structure vesting in WAPDA and KESC respectively, whereby each of them handled generation, transmission, distribution and supply functions. The first power policy of 1994 was the first step towards market liberation and eventual privatisation of the sector. The current power sector ecosystem is a "single buyer" market structure in which CPPA negotiates and enters into contracts on behalf of the various DISCOs. An electricity spot market is envisioned for the future as the market moves towards greater competition for which CPPA has already been designated as the market operator. A typical simplified IPP market structure comprises the IPP or GENCO on the generation side, a market or buyer entity, transmission company responsible for wheeling the electricity generated from the plant to the DISCO and then to the eventual consumer. Below is a simplified power structure figure.

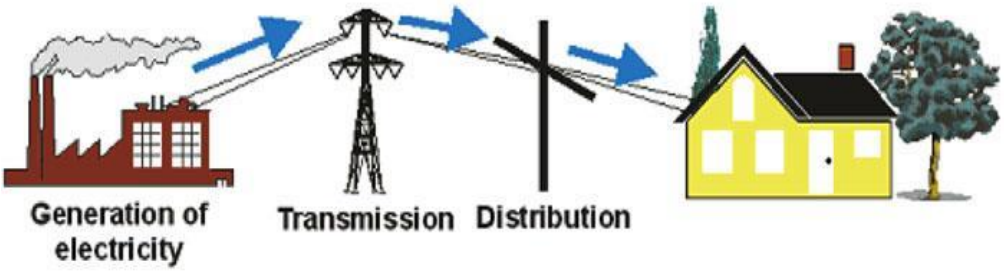


Figure source: https://www.e-education.psu.edu/eme801/node/529

Although regulated by the Sector Law, K-Electric as such does not fall within the IPP framework under the Pakistan power sector regime. K-Electric is a vertically integrated power company that provides power generation, transmission and distribution to the Karachi metropolitan area.

Prior to CPPA, and particularly in the case of many existing PPAs, they were entered between NTDC and the relevant IPP.

2.2. Sector players

Council of Common Interests

The Council of Common Interests is a constitutional body under the 1973 Constitution. The Council, formulates and regulates policies in relation to matters in Part II of the Federal Legislative List of the Constitution and also resolves disputes between provinces in respect of matters set out therein, which among other includes matters relating to electricity in accordance with Articles 154 and 157 of the 1973 Constitution.

Ministry of Energy (Power Division)

Under the Federal Rules of Business, 1973, the Power Division of the Federal Ministry of Energy has oversight and policy making competence over all issues regarding power generation, transmission, distribution and pricing in Pakistan. It also exercises oversight and control over the state sector entities, which comprise of WAPDA, PPIB, NEPRA and CPPA.

The Power Division of the Ministry of Energy is responsible for the development of water and power resources. It also handles all issues regarding electricity generation, transmission, distribution and pricing. The Ministry exercises this function through respective organizations. It also performs certain specific functions such as coordination of power sector plans, formulation of policies and specific incentives, and liaises with provincial governments on all related issues.[12]

PPIB

PPIB was created in 1994 as the one-window facilitator on behalf of the GOP to promote private investments in the power sector. In 2012 PPIB was made a statutory organization through Private Power and Infrastructure Board Act 2012 and works under the Power Division of the Ministry of Energy. The role of PPIB has been further expanded by the GOP by allowing it to facilitate public sector power and related infrastructure projects in IPP mode, for which PPIB's Act has been amended in November 2015.[13] PPIB approves IPPs and leads the IPP procurement process and issues letters of intent, letters of support LOIs & LOSs (including Tripartite LOSs), approves feasibility studies, executes Implementation Agreements (IAs) and provides GOP guarantees.

The PPIB provides support to the private sector in implementing conventional power generation projects, including hydropower projects of more than 50 MW capacity. The subsequent 2002 Power Policy covered concessions for the development of all private sector thermal and hydro generation plants above 50 MW, while projects below 50 MW were left to provincial governments.

In the Pakistan power sector ecosystem, PPIB is responsible for handling the procurement process of IPPs.

AEDB

The AEDB is an autonomous body under the Power Division of the Ministry of Energy. It is the sole representing agency of the GOP established with the main objective to facilitate, promote and encourage development of renewable energy projects in Pakistan and to accelerate alternative energy and renewable energy projects such as wind power and small-scale hydropower projects. Provincial governments, rather than central government, have responsibility for hydropower projects of up to 50MW. It also acts as one-window facilitator for alternative and renewable energy projects. Its mandate also includes developing pilot projects on its own or through joint ventures or partnership with public or private entities to motivate initiatives and evaluation of concepts and technologies from a technical and financial perspective among other things. Besides AEDB, the provincial power departments are also involved in development of small hydel power plants and renewable power projects.

[12]www-pub.iaea.org. 2020. Pakistan 2019. [online] Available at: <https://www-pub.iaea.org/MTCD/Publications/PDF/cnpp2019/countryprofiles/Pakistan/Pakistan.htm> [Accessed 11 July 2020].
[13] Ppib.gov.pk. 2020. PRIVATE POWER & INFRASTRUCTURE BOARD. [online] Available at: <http://www.ppib.gov.pk/N_about_ppib.htm> [Accessed 11 July 2020].

WAPDA

WAPDA is an autonomous and statutory body under the administrative control of the Federal Government. Established in 1958, for the purpose of coordinating and giving a unified direction in the development of water and power projects. In the bundled power sector WAPDA served as the state owned, national vertically integrated electricity utility provider involved in power generation, transmission and dispatch, distribution and supply of electricity throughout Pakistan except Karachi region, which was served by the then KESC and now K-Electric, another vertically integrated power company.

In 1998, the WAPDA Act was amended, paving the path for unbundling of WAPDA's functions. WAPDA's functions were split with a newly established company namely PEPCO. WAPDA remained responsible for water and hydel power projects and PEPCO assumed the responsibility of thermal power generation, transmission, distribution and billing assets of WAPDA.

Unbundling of WAPDA naturally involved the transfer and novation of various financing arrangements and transfer assets held by WAPDA to relevant successor entities. This together saw the establishment of separate GENCOs and DISCOs.

NEPRA

Following the implementation of the Sector Law each of the functions of electricity generation; transmission, distribution and supply are subject to regulation. NEPRA was established pursuant to Section 3 of the Sector Law. Under the Sector Law, NEPRA is competent to regulate the electricity power services pursuant to Section 7 of the Sector Law. NEPRA is an administratively and financially independent entity. The role of NEPRA has since been enhanced following the Sector Law Amendment Act. The powers and functions of NEPRA comprise, among others, the following:

i. grant of licenses under this Sector Law as amended:

    a. specify procedures and standards for registration of persons providing electric power services;

    b. aid and advise the Federal Government, in the formulation of national electricity plan;

ii. ensure efficient tariff structures and market design for sufficient liquidity in the power markets;

iii. specify procedures and standards for investment programs by generation companies and persons licensed or registered under the Sector Law;

iv. specify and enforce performance standards for generation companies and licensees or persons registered under this Sector Law;

v. specify accounting standards and establish a uniform system of account by generation companies and persons licensed or registered under the Sector Law.

vi. review its order, decisions or determinations;

vii. settle disputes between licensees in accordance with the specified procedure;

viii. issue guidelines and standard operating procedures and promote the development of a market, including trading, in accordance with the national electricity policy and the national electricity plan;

ix. determine tariff, rates, charges and other terms and conditions for supply of electric power services by the generation, transmission and distribution companies and recommend to the Federal Government for notification;

x. review organizational affairs of generation companies and persons licensed or registered under this Sector Law to avoid any adverse effect on the operation of electric power services and for continuous and efficient supply of such services; and

xi. submit reports to the Federal Government in respect of activities of generation companies and persons licensed or registered under the Sector Law.

NEPRA's mandate includes regulation of generation, transmission and distribution of electric power.

PEPCO

PEPCO was established as a holding company responsible for all the affairs of the incorporated DISCOs, four GENCOs and NTDC that were established following the Sector Law. PEPCO was created with a transitory stewardship role to oversee the unbundling and privatization of WAPDA components, to manage the transition of WAPDA from a bureaucratic structure to a corporate, commercially viable and productive entity, and to manage the thermal generation plant formerly managed by WAPDA.[14]

There have been government discussions regarding the liquidation of PEPCO. In April 2012, considering the progressively worsening power crisis, the PEPCO's Board of Directors approved its dissolution, and its functions were transferred to NTDC and subsequently to CPPA.[15]

CPPA

CPPA was established in 2009 and as mentioned above certain functions of the NTDC were transferred to CPPA. Until 2015, CPPA continued to function under NTDC, albeit as a department of NTDC.

When NTDC was licensed by NEPRA in 2002 it had two functions in addition to transmission and system operation functions. These functions, assigned in the license as transitory arrangements to reflect the change in sector structure and future power market, were: (i) development and implementation of competitive electricity markets, including a contract registrar; and (ii) as WAPDA

[14] Bacon, R., 2019. Learning From Power Sector Reform: The Case Of Pakistan. [online] World Bank Group, p.9. Available at: http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 8 May 2020].
[15] Kessides (2013) and Valasai et al., (2017)

could no longer be the buyer under the PPAs with IPPs, procure power on behalf of the DISCOs created subsequent to the unbundling of WAPDA until the wholesale competition market started commercial operation, at which stage DISCOs would contract and procure power on their own. In this way the CPPA function in NTDC License introduced a change in the power purchase and market model, where each and all DISCOs buy power through a representative that is responsible to negotiate, sign, and administer the billing and settlement of PPAs.

In 2009 CPPA was created as a power company to take over the market development functions from NTDC as envisaged in NTDC's 2002 license. The function and scope of authority of CPPA are regulated by NEPRA Market Operator Rules. Rule 5 of the Market Operator Rules provide that CPPA shall be deemed to be authorized and registered as the market operator. Since the Market Operator Rules came into force, CPPA is deemed to be the market operator and is authorized and registered to conduct the market operations.

It is intended that all future IPPs will contract with CPPA and all existing IPPs were informed of novation of their PPAs to CPPA. Power is purchased from IPPs on behalf of the DISCOs by CPPA, though K-Electric (formerly KESC) is exempt in this regard by reason of its vertically integrated operations.

NTDC

NTDC is responsible for constructing, operating and maintaining the electricity transmission infrastructure, which comprises transmission lines of 220 kV and 500 kV, and grid stations linking power plants across the country. It also provides services to the distribution companies in designing and construction of 132 kV transmission lines and grid stations.[16] The national electricity transmission infrastructure transmits power between GENCOs and IPPs and the state-owned DISCOs which supply electricity to end consumers.

Prior to the bifurcation of the functions performed by CPPA, NTDC was the single buyer for all power produced by the GENCOs and IPPs and the government counterparty in all PPAs.

DISCO

There are currently ten electricity distribution companies operating in the country excluding K-Electric, that operates as a vertically integrated company:

i. Peshawar Electric Supply Company;

ii. Islamabad Electric Supply Company;

iii. Gujranwala Electric Power Company;

iv. Lahore Electric Supply Company;

v. Faisalabad Electric Supply Company;

[16] www.pub.iaea.org. 2020. Pakistan 2019. [online] Available at: <https://www.pub.iaea.org/MTCD/Publications/PDF/cnpp2019/countryprofiles/Pakistan/Pakistan.htm> [Accessed 11 July 2020].

vi. Multan Electric Power Company;

vii. Hyderabad Electric Supply Company;

viii. Quetta Electric Supply Company;

ix. Sukkur Electric Power Company; and

x. Tribal Areas Electricity Supply Company.

With the exception of K-Electric which was privatized in 2005, all the companies are owned by the government. K-Electric is responsible for generation, transmission and distribution of power to the city of Karachi and the surrounding areas. It owns and operates 2734 MW of electricity generation capacity.[17]

GENCO

In Pakistan, the term GENCO typically refers to the former WAPDA thermal power plants which were reorganized into separate projects or generation companies following the unbundling of WAPDA. These GENCOs were granted separate power generation licenses under the Sector Law. WAPDA's large scale hydel power projects, which would be considered as power generating entities under a typical IPP ecosystem, are categorized separately by NEPRA and are covered under a single WAPDA hydel power generation license. The GENCO and WAPDA hydel generation effectively represent power producing entities albeit on the state side. GENCOs that are privatized, such as KAPCO, have IPP status.

IPP

An IPP is an independent power producer that has a generation license granted to it by NEPRA under the Sector Law. It is a term generally used for private power producers, in other words, an entity that is not a public utility, but still owns facilities to generate electric power for sale to utilities end users. It is primarily established by investors on a private basis. In Pakistan the regulatory framework and policies typically provide for establishment of IPPs on BOO or BOOT basis for thermal projects. Whether a project is to be classified as BOO or BOOT is to be determined on a case to case basis, though practice dictates that BOO is more common for thermal projects established as IPPs primarily to permit the government to be able to retire plants following the end of their PPA term. All hydel projects established as IPP are subject to BOOT as it would be substantially difficult to restore the site of a constructed water project, which are typically quite large and more often serve a more useful long term and strategic purpose.

PHPL

PHPL is a wholly owned GOP company, established for the purpose of injecting liquidity in the power sector. It uses Government guarantees to borrow from commercial banks, typically 5-7 years borrowing with the proceeds used to reduce the CPPA liabilities to the IPPs. Servicing of PHPL loans is partly made through a surcharge in the tariff, which typically covers around half of the servicing costs. The remaining amount is paid by diverting power sector revenues. [18]

[17] ibid
[18] IMF Staff Country Reports, 2019. Pakistan. 19(380).

2.3. IPPs in Pakistan

IPP Eco-system and Finance Structure

The IPP eco-system is slightly more complex in practice. The general perception held by the Pakistani public at large in respect of IPPs is that:

i. Pakistan is a unique country that has permitted private power production in the shape of IPPs;

ii. IPPs produce electricity at exorbitant rates and forces the GOP to purchase; and

iii. the sector both on the public and private side is largely corrupt and inefficient.

These views are often aired and presented at times by the government or opposition members, who had formerly remained in government. Why such a stance is taken by the governments or former governments while in opposition is largely understandable for the reason that power shortage has plagued the country for a long period of time compared to other utilities and is a popular subject matter that directly affects each and every person and business.

Generally, there is a lack of appreciation of the complex IPP eco-system and why the government moved to the IPP or privatized power in the first place. Whether the tariff and guaranteed ROE or IRR on projects is unreasonably high is a different question altogether that we will address below.

The policy permitting the establishment of IPPs pursuant to the 1994 Power Policy was originally designed to address a shortfall of about 1,500 MW in generation capacity at a time of tight constraints on public expenditure. It succeeded in attracting both foreign and local investors to the sector.[19] At that time several other developing and developed countries in the world were using PPP structures involving IPPs to reduce public expenditure on capital intensive projects of establishing power plants. This essentially meant that the huge initial investment and costs involved in the establishment of conventional power plants could be avoided. This can also be referred to as a CAPEX and replaced with the government procuring power on a tariff as an operating or current expense.

As investment in establishment of power plants and generating capacity became cost intensive, that even the government desired to avoid in order to reduce burden on public expenditure. The GOP introduced certain incentives to encourage investment by the private sector. A summary of the 1994 Power Policy, including its incentives, together with the other power policies is given in Section 1.5.

Pakistan has several international and local IPP sponsors or investors. Globally, cost intensive infrastructure projects such as power projects are developed on a project finance model involving long term debt. While PPP models globally are often financed and developed on a project finance basis, they do not necessarily mean the same thing. PPP is a procurement model whereby the private investors are granted a concession or a long-term license to develop, own and operate a public infrastructure project. This can be done for various reasons, most common of which is that

[19] Parish, D., 2006. Evaluation of the Power Sector Operations in Pakistan. A Report to the Operations Evaluation Department Asian Development Bank,.

the government does not wish to incur substantial budget expenditure or that the project can be developed or operated more efficiently by the private sector. In a PPP project, the government effectively passes the burden of project costs or CAPEX to the private investor against some form of return. Usual PPP models comprise BOO or BOOT.

Project financing is a loan structure that relies primarily on the project's cash flow for payment to debt and equity holders, with the project's assets, rights, and interests held as collateral. Since repayment of the financing relies on the cash flow and the assets of the project itself, the risks and returns are borne not by the sponsor alone but by different types of investors (equity holders, debt providers, quasi−equity investors). Project assets, project related contracts often referred to as project documents and project cash flows need to be separated from those of the sponsor. There are two basic types of project finance: non-recourse project finance and limited recourse project finance.[20]

A non-recourse project finance structure entitles the lenders to repayment only from the revenues and assets of the project funded by them. The security granted to the lenders is limited to the project's assets. This effectively allows the sponsors or developers to undertake the project off balance sheet as the assets of the sponsors are not subject to any security, charge or guarantee. A limited-recourse project finance as the name suggests includes provides the lenders recourse to the sponsors in case of default of the project company to a limited extent. In a limited recourse financing, the lenders would have recourse to the assets of the project company and some of the assets of the sponsor. Typically, sponsors would have granted limited guarantees that would entitle the lenders to recourse against the sponsors.

Typically, the project finance structures are highly leveraged or geared. The Pakistani power sector policy permits a gearing of up to 80% of the project costs thereby requiring that the sponsors take up an equity of at least 20%. The reason why such large and capital intensive projects are financed on a project finance model is that it makes such projects attractive to the private sector because sponsors can fund major projects off-balance sheet by creating a SPV structure for the project company as in practice be such projects cannot funded completely by equity. This mode of financing allows sponsors to fund projects on a limited or non-recourse basis, in other words it reduces the risk and exposure of the sponsors in case the project defaults. Thus, this model alleviates investment risk for the sponsors and enables them to raise finance at a relatively low cost. Such structures benefit the projects and incentivises investment from the sponsors as these structures permit the debt providers or lenders to assume part of the risk in the project.[21]

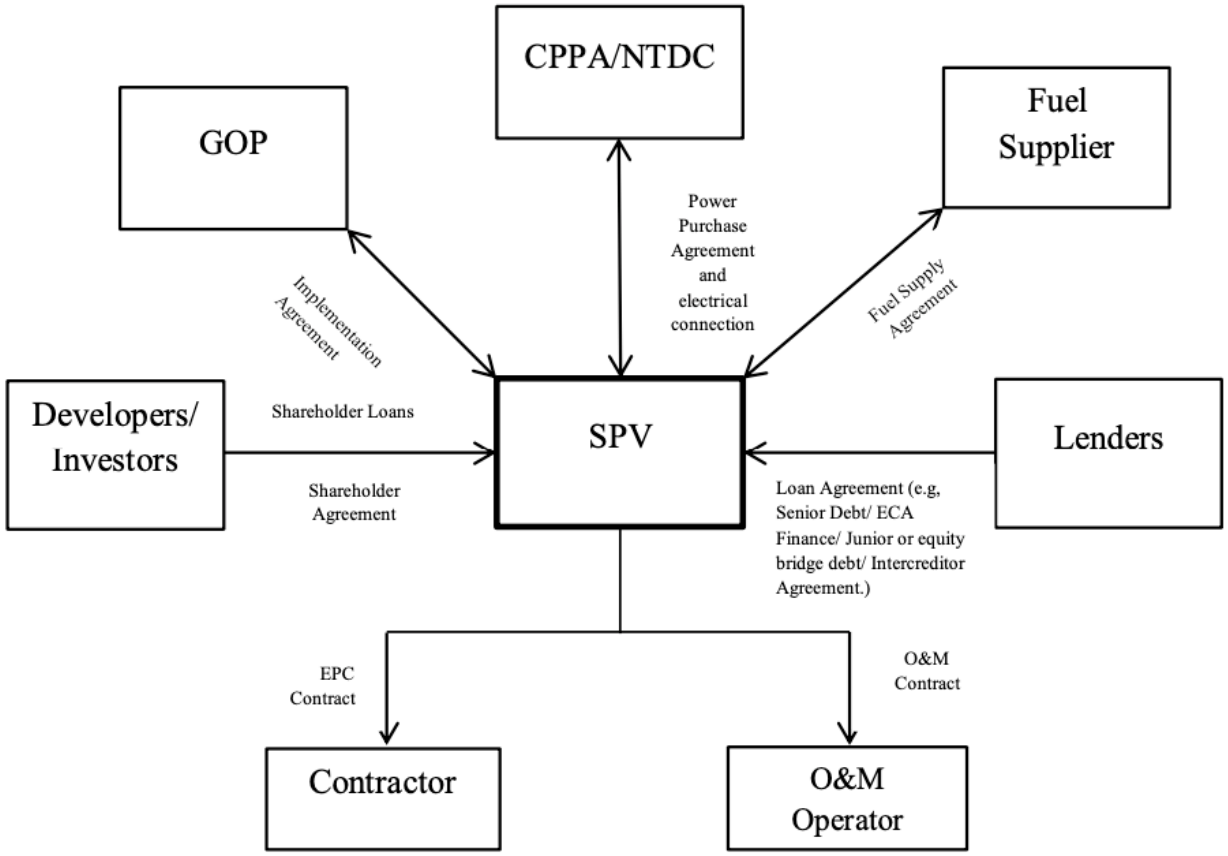
Project finance transactions are unlike corporate finance transactions where the primary source of repayment for investors and creditors is the sponsoring company, backed by its entire balance sheet, not the project alone. Although creditors will usually still seek to assure themselves of the economic viability of the project being financed, so that it is not a drain on the corporate sponsor's existing pool of assets, an important influence on their credit decision is the overall strength. Creditors will still retain a significant level of comfort in being repaid even if the individual project fails. In corporate finance, if a project fails, its lenders do not necessarily suffer, as long as, the company owning the project remains financially viable. In project finance, if the project fails, investors and creditors can expect significant losses. [22]

[20] Elibrary.worldbank.org. 2020. Project Finance In Developing Countries: Default Book Series. [online] Available at: <https://elibrary.worldbank.org/doi/pdf/10.1596/0-8213-4434-X> [Accessed 11 July 2020].
[21] ibid
[22] ibid

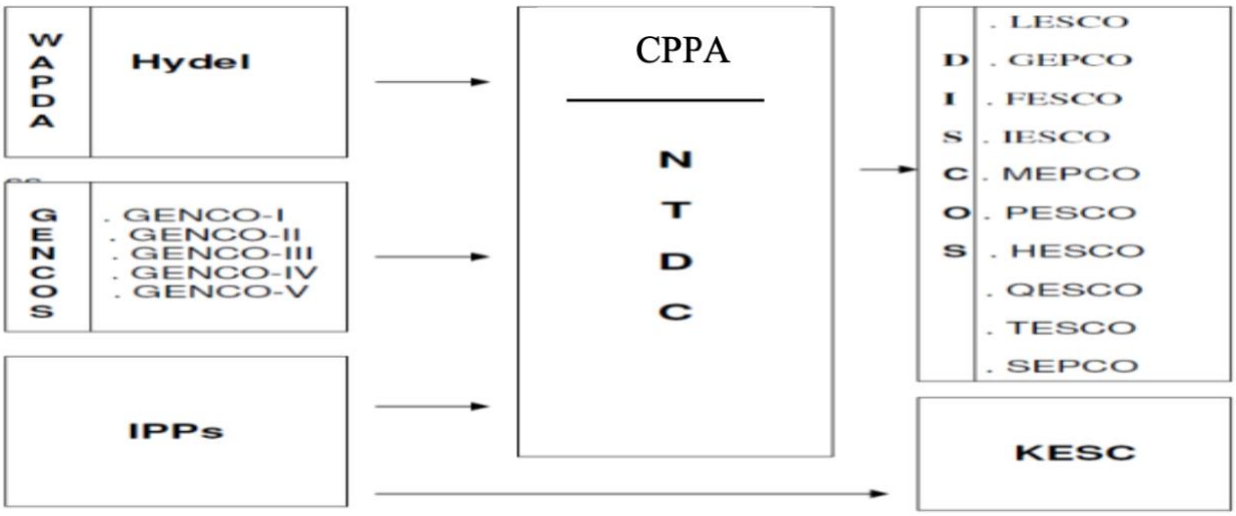
To understand the significance of the IPP ecosystem, it is important to note the context of its financing structure. As a project is typically financed by third party lenders such as commercial and developmental banks and international financial institutions. For these financial institutions it is extremely important that the projects are considered bankable. As the lenders are assuming a level of risk in the development and performance of the project for the term of the loan, project finance transactions are carried out on detailed financial model that takes into account various project costs, such as plant and equipment, critical items such as power turbines, EPC cost, O&M costs and assumptions as to future costs and their impact. The financial model is stress tested by the sponsors and the lenders. The financial model is independently reviewed and a legal, technical and risk assessment and due diligence of projects is undertaken to extensively identify and allocate all risks involved.

To mitigate the risks involved, different parties play different roles within the ecosystem. The project company is established as a SPV, a separate and distinct entity is appointed as the EPC contractor and the O&M contractor and long lead and critical items are obtained from specialist suppliers. Furthermore, as project finance transactions take place on long term debt which is intended to be repaid out of future cash flows, there is naturally a need to ensure a robust basis for calculating the future cash flows to ensure that the project would be capable of repaying its debt. This future cash flow is ascertained on the basis of long term off-take agreements, in the power sector being PPAs. To ensure the future cash flows and the success of the project during and post development, the lenders typically enter into direct agreement with the off-takers and key project entities such as the EPC contractor and the O&M contractor etc.

IPP projects developed in Pakistan generally follow the structure illustrated below:



The current power market structure in Pakistan as present reflects the following.



Role of IPPs in Pakistan

The investment needs of Pakistan's power sector are substantial. In 2006, ADB had projected that

Pakistan's power generation sector needed an annual investment of $700 million to $2 billion.[23] IPPs have played an important role in adding new generation capacity. Pakistan's power sector reforms, among other objectives, aimed at reducing the public sector's role in power generation and allowing private investment in the power sector.[24] Pakistan's power sector has consistently recorded high levels of foreign direct investment over the past several years compared to other sectors.

Sector	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	Jul FY21 (P)
Oil & Gas	740.6	512.2	629.4	559.6	502.0	300.5	249.0	146.0	372.0	349.8	311.4	17.0
Financial Business	163.0	310.1	64.4	314.2	192.8	256.4	289.0	297.3	400.3	286.5	273.8	23.8
Textiles	27.8	25.3	29.8	13.9	(0.2)	43.9	20.0	15.5	49.7	76.8	37.7	1.8
Trade	117.0	53.0	25.3	5.1	(3.2)	50.6	26.6	32.6	143.0	76.3	32.7	(2.5)
Construction	101.6	61.1	72.1	47.7	28.8	53.5	36.9	8.3	40.4	70.2	20.7	0.4
Power	(120.6)	155.8	(84.9)	26.8	71.4	303.8	1,153.4	716.0	1,179.5	(323.9)	764.3	12.2
Chemicals	112.1	30.5	96.3	(47.1)	94.9	60.3	88.5	5.4	48.9	103.1	20.7	(1.8)
Transport	132.0	104.6	18.7	44.1	2.7	6.2	166.8	163.5	56.9	40.1	(4.9)	(0.4)
Communication IT & Telecom	291.0	(34.1)	(312.6)	(381.7)	434.2	62.2	241.4	(49.2)	113.5	(55.7)	622.5	21.5
Others	586.3	416.3	282.2	873.8	375.2	(103.4)	121.3	1,071.2	375.7	739.2	482.3	42.3
Total	**2,150.8**	**1,634.8**	**820.7**	**1,456.4**	**1,698.6**	**1,033.8**	**2,392.9**	**2,406.6**	**2,780.3**	**1,362.4**	**2,561.2**	**114.3**

Note: Pakistan's Fiscal Year runs from 1st July till 30th June. The figures in brackets are in negative.
Figure: Sector Wise Net FDI ($ Million)
Figure Source: https://invest.gov.pk/statistics

[23] Parish, D., 2006. Evaluation of the Power Sector Operations in Pakistan. A Report to the Operations Evaluation Department Asian Development Bank,.
[24] The Express Tribune. 2020. Pakistan'S Power Sector — The Cost Of Prescribed Reforms | The Express Tribune. [online] Available at: <https://tribune.com.pk/story/1284578/pakistans-power-sector-cost-prescribed-reforms> [Accessed 11 July 2020].

In Pakistan, IPPs account for about 30% of the total generation capacity. The electricity market was opened to IPPs in 1990s, with HUBCO as the first IPP. Subsequently, 15 IPPs achieved commercial operations under Pakistan's first power policy 1994. IPPs contribute significantly in electricity generation in Pakistan but unfortunately, IPPs are producing below capacity as a result of working capital shortage[25] caused by outstanding amounts of receivables from previously PEPCO and then CPPA and the state utilities, a phenomenon that is commonly referred to as Circular Debt in Pakistan. Pakistan's ECC has defined circular debt as "the amount of cash shortfall within the Central Power Purchasing Agency (CPPA), which it cannot pay to power supply companies". The CPPA is often unable to recover full amounts from the DISCOs in order to pass those amounts onto power generators. For several years, the IPP program remained stagnant, only to be revived when a huge power shortage hit the country in 2006-07. In a regional context, Pakistan offers a relatively sophisticated operational and regulatory framework for private power producers.[26]

While the GOP appears to have brought in private investment in the power sector and for the time being has largely reduced the public sector's role in power generation, the net effect of doing that has been the source of contention. There is also a view that bringing private sector investment was also conceived in a way that led Pakistan into making policy blunders which distorted the power sector fundamentals for a long time to come.[27] Pakistan has an installed capacity of 17,551MW through IPPs under various power policies.

The IPPs are largely thermal power projects relying on imported fossil fuel. This approach also seriously compromised Pakistan's energy security and did not focus on achieving self-sufficiency by harnessing indigenous resources.[28]

2.4. Procurement Method and Independent Power Procurement Process and PPP Structure in Play and Tariff Model for IPPs in Pakistan

The Pakistani power sector procurement provides for both international competitive bidding and development of projects on an unsolicited basis. Under the 1994 Power Policy, investors were offered a guaranteed price for power supplies through a bulk supply tariff and were able to make their own proposals regarding the technology and fuel to be used. The thermal projects were constructed under BOO arrangements. The policy was considerably changed in 1998, with assistance from the Asian Development Bank. Under the new policy, bidders were expected to tender through international competitive bidding on the basis of power tariffs. Selection would be based on the minimum levelized tariff. Detailed feasibility studies would be prepared before the bidding. Unsolicited proposals would be permitted from project sponsors in the absence of feasibility studies for projects. Implementation was under the BOO model for thermal projects and BOOT model for hydel projects.[29]

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[25] Ikram, A., Su, Q. and Fiaz, M., 2018. Pakistan's persistent energy crisis and performance of private power producers. *International Journal of Business Performance Management*, [online] 19(2), p.240. Available at: <https://www.researchgate.net/publication/322415206_Pakistan%27s_persistent_energy_crisis_and_performance_of_private_power_producers> [Accessed 5 September 2020].

[26] Moiz, Shafei & Iqbal, Sumera & Wang, Yong & Kamran, Shah Muhammad. (2017). Impact of Energy Sources and the Electricity Crisis on the Economic Growth: Policy Implications for Pakistan. Journal of Energy Technologies and Policy. 7. 7-29.

[27] The Express Tribune. 2020. Pakistan'S Power Sector — The Cost Of Prescribed Reforms | The Express Tribune. [online] Available at: <https://tribune.com.pk/story/1284578/pakistans-power-sector-cost-prescribed-reforms> [Accessed 11 July 2020].

[28] The Express Tribune. 2020. Pakistan'S Power Sector — The Cost Of Prescribed Reforms | The Express Tribune. [online] Available at: <https://tribune.com.pk/story/1284578/pakistans-power-sector-cost-prescribed-reforms> [Accessed 11 July 2020].

[29] Parish, D., 2006. Evaluation of the Power Sector Operations in Pakistan. A Report to the Operations Evaluation Department Asian Development Bank,.

The GOP announced a further new policy structure in 2002. The 2002 arrangements were broadly similar to the 1998 Power Policy. It provided that the responsibility for projects of over 50MW rested with the federal government were to be handled by the PPIB. Projects smaller than 50MW were devolved to the provinces.

The current power policy similarly provides that generally the projects may be processed and awarded through international competitive bidding and proposals should be solicited based on upfront tariff. While the framework provides for procurement by competition, this conceals a different reality. Despite allowing for international competitive bidding in Pakistan most IPPs have been developed on an unsolicited basis as the country has struggled to attract investment in generation by competitive bidding of tariff[30]. The CPEC is now bringing large generation capacity (according to their website 14 projects worth over $18 billion with a 11.1 GW capacity are at various stages of development/construction) but none of these have been awarded through international competitive bids or auctions.[31] All projects have been awarded through direct negotiations between the GOP and the Chinese government or the relevant project companies.[32]

In Pakistan the regulatory framework and policies typically provide for establishment of IPPs on BOO or BOOT basis for thermal projects. Whether a project is to be classified as BOO or BOOT is to be determined on a case to case basis, though practice dictates that BOO is more common for thermal projects established as IPPs primarily to permit the government to be able to retire plants following the end of their PPA term. All hydel projects established as IPP are to be developed on a BOOT arrangement.

2.5. Risk Allocation

The key project documents for Pakistani IPPs have been developed with an investor friendly and bankable risk profiles as can be seen from precedent transactions in Pakistan. Investors are generally insulated from underlying economic risks, and sufficiently long-term PPAs to cover plant life with PPAs modelled as take-or-pay contracts. They are further followed by express support of the government in the shape of sovereign guarantees for payment. The fundamental principle underlying the contractual framework is to limit, as far as possible, the risks borne by the SPV. Typical key project documents in case of a thermal IPP are:

i. Implementation Agreement;

ii. Power Purchase Agreement; and

iii. Fuel Supply Agreement.

In the case of renewable and hydel projects, the documents accordingly change to take into account the different nature of feedstock required to produce electricity. The project documents on the government side for renewable projects have been developed using the thermal power project documents. Nonetheless, all documents generally follow a common theme. They limit the

[30] 1 Bacon, R., 2019. Learning From Power Sector Reform: The Case Of Pakistan. [online] World Bank Group, p.9. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 8 May 2020].
[31] ibid
[32] ibid

risks faced by the developers and the government takes responsibility for the following risks.[33]

Economic Risk

Any change in exchange rates, inflation or costs of finance are considered economic risk factors.

Market Risk

As stated above, the current market structure is based on a single buyer. Under the term of the PPA currently in place the IPP sells power only to a single customer, i.e. CPPA. This contractual arrangement exposes IPPs to a single customer risk. This is supplemented by a sovereign guarantee issued by the GOP to secure the single customer's payment obligations to IPP. The only market risk the investors assume is the sovereign credit risk in the event the GOP fails to honour its obligations under the sovereign guarantee.

Political Risk

The GOP assumes risk has assumed political risk. This largely refers to the government guarantees, warranties and concessions made under the Implementation Agreement in respect of government and certain country risk events and any change of law that affects the performance of the PPA.

Project Company Risks

One of the key risks faced by the SPV during project development is of project completion and cost overruns during the construction phase. Under the precedent of Pakistani PPA this risk is borne by the SPV.

In addition, IPP is required to ensure that its facilities generate electricity according to technical specifications and deliver the required power to NTDC in accordance with agreed technical specifications and codes. This risk is borne by the SPV. Typically, the SPV will mitigate this risk by entering into a separate O&M arrangement, the cost of which is incorporated in the tariff.

2.6. Key Project Documents

Risk allocation under the Implementation Agreement

The key documents governing the terms and conditions on which a power project functions are the Implementation Agreement (IA), the Power Purchase Agreement (PPA), and the Fuel Supply/Gas Supply Agreement (FSA/GSA). These agreements are traditionally entered between the project company and an authority of the GOP, with the exception of the FSA/GSA which is entered between the project company and the supplier. These documents are executed after the entire process, as laid out in the respective policy has been followed and requisite approvals and licenses have been obtained. A brief summary of the key aspects and relevant risk profile is provided below.

[33] Moiz, Shafei & Iqbal, Sumera & Wang, Yong & Kamran, Shah Muhammad. (2017). Impact of Energy Sources and the Electricity Crisis on the Economic Growth: Policy Implications for Pakistan. Journal of Energy Technologies and Policy. 7. 7-29.

Implementation Agreement

An Implementation Agreement (IA) is an agreement traditionally entered between the GOP and the project company. They provide for direct contractual obligations and undertakings between the GOP and the project company. For present purposes, the Standardized Implementation Agreement Draft dated 15 May 2006 for Oil & Gas as published on the PPIB website is being analysed. This agreement is entered between the President of Pakistan, for and on behalf of the Islamic Republic of Pakistan, and the project company. A PPA is executed simultaneously with the IA. The main features are:

i. An overview of key terms in an IA are as follows.

   a. Terms concerning the implementation of the project.

   b. Terms concerning acquisition of the power plant site, transportation, and necessary consents.

   c. The obligations on GOP concerning support to be provided to the project company, including obtaining consents, security protection and assistance with immigration control.

   d. Terms concerning construction, operation, maintenance, and staffing.

   e. The terms concerning the guarantee provided by the GOP.

   f. Force majeure, termination, and resolution of dispute provisions.

   g. Terms concerning insurance, liability, taxation, import control, foreign currency, and various miscellaneous boilerplate provisions.

ii. The project company is obligated to design, insure, finance, acquire, construct, complete, commission, own, operate, maintain, and transfer the power project in accordance with all applicable laws of Pakistan, the company consents, the IA Agreement, and the Power Purchase Agreement. [Article III]

iii. The GOP is obligated to use its offices to support the project company's performance of its obligations, including, inter alia, ownership, operation and maintenance of the power plant. [Article V, Section 5.3]

iv. Certain provisions are made available concerning double jeopardy under the PPA in Article V, Section 7.3.

v. The GOP, including its entities, is restricted from taking any discriminatory action which materially and adversely affects the project, or the performance of the project company's obligations, or the enjoyment of its rights, or the interests of the investors or lenders under the project agreements. An exception is available for exercise of rights and obligations arising under the IA or PPA. [Article XII, Section 12.1]

vi. For the foregoing Section 12.1, it should be noted that the use of the term “non-discriminatory” or “discriminatory” is not intended to prohibit or limit in any way the GOP or any relevant authority from making rational distinctions between parties or from using measures, establishing conditions, or enforcing requirements that are, in each case, intended or designed to advance the purposes of the program being implemented by the GOP or relevant authority or of a consent. It is intended, however, to prohibit the use of governmental authority, over company consents, for example, to deprive the project company of the benefits of the IA or the PPA by the application of a higher standard to the project company (alone, or together with others in a small class) than to others similarly situated because of, for example, its foreign ownership, or to gain commercial or political advantage. [Article XII, Section 12.4]

vii. The GOP provides an undertaking that neither GOP, nor the power purchaser, or any public-sector entity will expropriate, compulsorily acquire, nationalize, or otherwise compulsorily procure (except as given in *Section 15.1* of IA) any ordinary share capital or material assets of the project company. However, this should not be construed as a waiver by the GOP or the power purchaser of the power purchaser’s exercise of its power of eminent domain, so long as it is exercised in accordance with the Laws of Pakistan and the effect of such exercise does not materially and adversely affect the Company’s ability to perform its obligations under and enjoy the benefits of the PPA or, without just and adequate compensation, adversely affects its use and enjoyment of the project site. An exception for this clause is available for exercise of rights and obligations arising under the IA or PPA. [Article XII, Section 12.2]

viii. In Article XII, Section 13.1, Force Majeure has been defined as “any event or circumstance or combination of events or circumstances (including the effects thereof) that is beyond the reasonable control of a Party and that on or after the Effective Date, materially and adversely affects the performance by such affected Party of its obligations under or pursuant to this Agreement (including a Party’s ability to deliver or receive energy from the Complex); provided, however, that, such material and adverse effect could not have been prevented, overcome or remedied by the affected Party through the exercise of diligence and reasonable care, it being understood and agreed that reasonable care includes acts and activities to protect the Complex from a casualty or other event that are reasonable in light of the probability of the occurrence of such event, the probable effect of such event if it should occur, and the likely efficacy of the protection measures”. In an attempt to simplify the definition; it means any event which is beyond the reasonable control of a party which occurs after the financial closing of the project, and in a material manner affects the performance of that party of its obligations under IA. Furthermore, the event should be one which the party could not avoid through exercise of diligence and reasonable care.

ix. The following events, if they satisfy the force majeure definition above, constitute a Pakistan Political Event; meaning a political event that occurs inside or directly involves Pakistan:

    a. “any act of war (whether declared or undeclared), invasion, armed conflict or act of foreign enemy, blockade, embargo, revolution, riot, insurrection, civil commotion, or act or campaign of terrorism or political sabotage; or

    b. any Lapse of Consent that shall have existed for thirty (30) consecutive days or more; or

    c. any strike, work-to-rule, go-slow, or analogous labour action that is politically motivated

and is widespread or nationwide;" [Article XIII, Section 13.1 (a) i-iii]

x. Further events include, provided they fulfil the force majeure definition:

   a. any Change in Law (as defined in Article I, Section 1.1); or

   b. Other events beyond the reasonable control of a Party, which include, but are not limited to:

      I. lightning, fire, earthquake, tsunami, flood, storm, cyclone, typhoon, or tornado; or

      II. any Lapse of Consent that shall have existed for less than thirty (30) consecutive days; or

      III. any strike, work-to-rule, go-slow, or analogous labour action that is not politically motivated and is not widespread or nationwide; or

      IV. any strike, work-to-rule, go-slow, or analogous labour action that is not politically motivated and is not widespread or nationwide; or

      V. fire, explosion, chemical contamination, radioactive contamination, or ionizing radiation; or

      VI. epidemic or plague." [Article XIII, Section 13.1 (b) & (c)]

xi. Expressly excluded force majeure events include, provided they are not a result of a force majeure event:

   a. "late delivery or interruption in the delivery of a machinery, equipment materials, spare parts or consumables (including fuel);

   b. a delay in the performance of any contractor; or

   c. normal wear and tear or random flaws in materials and equipment or breakdown in equipment." [Article XIII, Section 13.1 (d)]

xii. In case of any delay caused due to a force majeure event, provided a party complies with all requirements under various force majeure clauses in the IA, the affected party shall not be liable for, inter alia, any failure or delay in performing its obligations, other than a payment or security obligation, under or pursuant to the IA, during the existence of the force majeure event. [Article XII, Section 13.4]

xiii. Certain events shall constitute an event of default by the project company and shall allow the GOP to terminate the IA if they are not resolved within the permitted time period. However, any event resulting from (a) GOP's breach of IA, or the guarantee, or (b) a breach by the power purchaser of PPA or (c) a force majeure event (except in case of Section 14.1(a)(x)), shall not constitute an Event of Default. The events of default, as contained in Article XIV, Section 14.1

(a) i-x are:

a. failure of the Company to have achieved Construction Start within ninety (90) days after Financial Closing;

b. failure of the Company to achieve the Commercial Operations Date within twelve (12) months after the Required Commercial Operations Date;

c. after Construction Start but prior to the achievement of the Commercial Operations Date, the failure of the Company to prosecute the Project in a diligent manner for a period of thirty (30) consecutive days without prior notice to, and the prior written consent of the GOP;

d. after the Commercial Operations Date, an Abandonment by the Company without prior notice to and the prior written consent of the GOP that continues for a period of thirty (30) consecutive days;

e. other than the assignments to and by the Lenders contemplated under Section 11.2, the assignment or transfer of the Company's rights or obligations in the assets identified in Section 11.2(a) without obtaining the prior written consent of the GOP or the transfer, conveyance, loss, or relinquishment of the Company's right to own and/or operate the Complex or any material part thereof or to occupy the Site, to any Person (other than the power purchaser pursuant to the Power Purchase Agreement) without the prior written approval of the GOP;

f. except for the purpose of amalgamation or reconstruction (provided, that such amalgamation or reconstruction does not affect the ability of the amalgamated or reconstructed entity, as the case may be, to perform its obligations under this Agreement and further provided that such amalgamation has been agreed to by the GOP), the occurrence of any of the following events: (a) the passing of a resolution by the shareholders of the Company for the winding up of the Company; (b) the voluntary filing by the Company of a petition of bankruptcy, moratorium, or other similar relief; (c) the appointment of a provisional liquidator in a proceeding for the winding up of the Company after notice to the Company and due hearing, which appointment has not been set aside or stayed within ninety (90) days of such appointment; (d) the making by a court with jurisdiction over the Company of an order winding up the Company that is not stayed or reversed by a court of competent authority within ninety (90) days;

g. any statement, representation, or warranty by the Company in this Agreement proving to have been incorrect, in any material respect, when made or when deemed to have been made, and such failure or incorrect statement, representation, or warranty having a material and adverse effect on the Company's ability to perform its obligations under this Agreement or on the obligations or liabilities of the GOP under this Agreement; and

h. exercise by the Lenders of their remedies under the Financing Documents with respect to either the Complex, its assets or the pledged Ordinary Share Capital, such that either the Company or its management are removed by the Lenders from control of the Complex or the Company and the failure by the Lenders to deliver an Election Notice (as defined in Section 14.4) or to transfer the Complex and the rights and obligations

of the Company under the Agreement and the Power Purchase Agreement to a Transferee within two hundred and forty (240) days thereafter.

xiv. Certain events shall constitute an event of default by the GOP and shall allow the project company to terminate the IA if they are not resolved within the permitted time period. However, any event resulting from (a) a breach by the project company of the PPA or IA, or (b) a force majeure event (except in case of Section 14.1(a)(x)), shall not constitute an Event of Default. The Event of Default, as contained in Article XIV, Section 14.1 (b) i-x are:

a. the dissolution, pursuant to law of the power purchaser, except for an amalgamation, reorganization, reconstruction, or further privatization of the power purchaser, where the GOP without interruption guarantees the performance of the succeeding entity or entities on the same terms and conditions as the Guarantee or such other commercial security is provided for the obligation of the succeeding entity or entities that in the reasonable business judgment of the Company provides an adequate alternative to the Guarantee and all of the power purchaser's obligations under the Power Purchase Agreement are assigned pursuant to law or contractually assumed, through novation or otherwise, by one (1) or more entities, each with the lead capacity and appropriate commercial function to perform its obligations thereunder;

b. any default or defaults by the GOP in the making of any payment or payments required to be made by it hereunder or under the Guarantee on the due date for payment specified herein or in the Guarantee that continues unpaid for thirty (30) days;

c. any material breach or default by the GOP of or under this Agreement that is not remedied within thirty (30) days after notice from the Company to the GOP stating that a material breach of the Agreement has occurred that could result in the termination of this Agreement, identifying the material breach in reasonable detail and demanding remedy thereof;

d. any material breach or default by the power purchaser of or under the Power Purchase Agreement that is not remedied within thirty (30) days after receipt of a notice from the Company to the power purchaser, with a copy of the notice to the GOP that states that a material breach of the Power Purchase Agreement has occurred that could result in the termination of the Power Purchase Agreement, identifies the breach in reasonable detail and demands remedy thereof;

e. any change in any applicable Laws of Pakistan (A) making unenforceable, invalid, or void any material undertaking of the GOP or the power purchaser under this Agreement, the Guarantee, or the Power Purchase Agreement, or (B) making (1) it unlawful for the Company, the Lenders or the Investors to make or receive any payment, to perform any obligation or to enjoy or enforce any material right under this Agreement or any other document or agreement in the Project Agreements (other than a Change in Law for which compensation is provided in accordance with the Power Purchase Agreement), or (2) any such payment, the performance of any such material obligation or the enjoyment or enforcement of any such material right unenforceable, invalid or void as a result of any such change in law;

f. any change in any of the Laws of Pakistan placing any material restrictions or limitations (beyond those restrictions or limitations that are in existence on the date of the execution of this Agreement) on the ability of the Company to exchange Rupees for Dollars, or for Foreign Investors to repatriate, any capital, dividends, distributions or other proceeds from the Company (provided that such distributions do not arise in connection with a breach of this Agreement), which restrictions or limitations remain in place for more than one hundred and eighty (180) days without an arrangement being provided to exempt the Company or its Foreign Investors from all such restrictions and limitations;

g. the expropriation, compulsory acquisition, or nationalization by the GOP or any Public-Sector Entity of (i) any Ordinary Share Capital, or (ii) any material asset or right of the Company (except as contemplated by the Project Agreements);

h. any procurement by the GOP or any Federal Entity or any combination thereof of (i) any Ordinary Share Capital if the result would be for the GOP and/or one or more Federal Entities to acquire control of the Company or its management (and there shall be an irrebuttable presumption that the ownership by the GOP and/or any Federal Entity of more than twenty five percent (25%) of the Ordinary Share Capital shall constitute such control); or

i. any change in, or any change in the interpretation of, any of the Laws of Pakistan (including the Constitution of Pakistan and any other Laws of Pakistan that gives effect to the injunctions of Islam, being in the case of a decision of a court, a decision which is no longer in suspense as a result of an appeal) from and after the date of this Agreement having the effect of Section 14.2 (a) making (A) unlawful, unenforceable, invalid, or void any material undertaking of the GOP or the power purchaser under this Agreement, the Guarantee or the Power Purchase Agreement, as the case may be; or (B) unlawful for the Company to make or receive or the Lenders or the Investors to receive any payment (including interest), for the Company to perform any obligation or to enjoy or enforce any material right under this Agreement or any other Project Agreement in relation to the Project, or (C) any such payment, the performance of any such material obligation or the enjoyment or enforcement of any such material right becoming unenforceable, invalid or void as a result of any such change in the Laws of Pakistan, which in the case of (A) (B) or (C) above, has a continuing effect for more than one hundred and eighty (180) days without an arrangement being provided to exempt the affected party from the effect of such Change in Law.

xv. The project company cannot terminate the IA due to any default by the power purchaser under the IA without first giving, with respect to any such default, a copy of any notice required to be given to the power purchaser to the GOP subject to notice requirements. [Article XIV, Section 14.3 (a)]

xvi. The GOP cannot terminate the IA due to any default by the project company without first giving a copy of any notice required to be given to the project company, to the lenders under IA subject to notice requirements. [Article XIV, Section 14.4 (a)]

xvii. Upon expiration or earlier termination of the IA, the obligations which remain are those that

arose prior to or arise upon such expiration or termination and obligations that expressly survive such expiration or termination pursuant to this Agreement. The rights and obligations set out in Article X (foreign currency Exchange and Transfer of Funds), Article IX (Taxation and Import Controls), Article XVI (Resolution of Disputes), and this Article XV (Rights and Obligations of the Parties on Termination) shall survive any termination or expiration of the IA, until all these provisions are fulfilled and all funds payable hereunder by the GOP are received by the project company or the lenders upon the sale or other disposal of assets related to the project. This is a key term given the huge outstanding funds payable. [Article XIV, Section 15.3]

xviii. Subject to requirements as specified in the section, the GOP executes and delivers to the project company the guarantee, that is, the guarantee by the GOP of the payment obligations of the power purchaser under the PPA. [Article XVII]

a. The words of the guarantee, as provided in Schedule 3 Item 1.1, state: "In consideration of the Company entering into the Power Purchase Agreement with the power purchaser, the Guarantor hereby irrevocably and unconditionally Guarantees and promises to pay the Company any and every sum of money the power purchaser is obligated to pay to the Company under or pursuant to the Power Purchase Agreement that the power purchaser has failed to pay when due in accordance with the terms of that agreements, which obligation of the GOP shall include monetary damages arising out of any failure by the power purchaser to perform its obligations under the Power Purchase Agreement to the extent that any failure to perform such obligations gives rise to monetary damages."

b. The obligations of the guarantor under the guarantee are also absolute and unconditional and remain in full force and effect until all the covenants, terms, and agreements set forth in the PPA have been completely discharged and performed, unless waived by the project company in writing. [Schedule 3, Item 1.2]

c. The guarantee is also a continuing security that extends to cover the balance due to the project company at any time from the power purchaser under the PPA. It is also in addition to, and not in substitution for or derogation of, any other security that the project company may at any time hold in respect of the obligations of the power purchaser under the PPA. [Schedule 3, Item 1.3 & 1.4.1]

d. Once a demand has been made by the project company, and fulfils the criteria set out in Schedule 3, the GOP shall make the payment within ten business days. All late payments shall bear mark-up at an annual rate equal to the delayed payment rate. The delayed payment rate is defined in Article I, Section 1.1 as "[KIBOR/LIBOR] plus four and one half percent (4.5%) per annum, compounded semi-annually, calculated for the actual number of days which the relevant amount remains unpaid on the basis of a three hundred and sixty five (365) day year." [Schedule 3, Item 1.5.1]

e. The project company is also not obligated to exercise any remedies available to it, or to initiate any proceedings, or obtain any award in their favour before enforcing this guarantee. This means that the project company may call for enforcement of a guarantee without restoring to the dispute resolution mechanism. [Schedule 3, Item 1.5.2]

f. Furthermore, no set-off, counterclaim, reduction, or diminution of any obligation that the guarantor has or may have against the project company, nor any right of subrogation that the guarantor has or may have against the project company, shall be available to the guarantor against the project company in connection with any obligation under this guarantee. [Schedule 3, Item 1.8]

g. The GOP in relation to its guarantee also irrevocably and unconditionally states the following in Schedule 3, Item 1.9.3 (a) i-iii:

I. agrees that should any proceedings be brought against it or its assets, other than its aircraft, naval vessels and other defence related assets or assets protected by the diplomatic and consular privileges under the Laws of Pakistan (the "Protected Assets"), no claim of immunity from such proceedings will be claimed by or on behalf of the Guarantor, on behalf of itself or any of its assets (other than the Protected Assets) that it now has or may in the future have in any such jurisdiction in connection with any such proceedings;

II. waives any right of immunity which it or any of its assets (other than the Protected Assets) now has or may in the future have in connection with any such proceedings; and

III. consents generally to the jurisdiction of any court of competent jurisdiction for any action filed by the Company to enforce any award or decision of any tribunal which was duly appointed under this Guarantee to resolve any Dispute between the Parties (including, without limitation, the making, enforcement or execution against or in respect of any of its assets whatsoever (other than the Protected Assets)) regardless of its use or intended use, and specifically waives any objection that any such action or proceeding was brought in an inconvenient forum and agrees not to plead or claim the same. The Guarantor agrees that service of process in any such action or proceeding may be effected in any manner permitted by the law applicable to the aforementioned court."

IV. The project company also waives any and all rights it may have to enforce any judgement claim against the 'Protected Assets' in any court. [Schedule 3, Item 1.9.3 (b)]

V. The governing law for the guarantee shall be the laws of Pakistan. [Schedule 3, Item 6]

h. The duration of such a guarantee includes, inter alia, the time until which any amount owed to the project company by the GOP or power purchaser in relation to the guarantee is outstanding. [Schedule 3, Item 2.1]

xix. The governing law for the IA shall be the laws of Pakistan. [Article XVIII, Section 18.2*]*

xx. The IA may only be amended by an agreement of the parties in writing which is executed by duly authorized representatives. An amendment in the PPA shall not increase the liability of the GOP under the IA, unless such an amendment is approved in writing by the GOP. [Article

XVIII, Section 18.3]

xxi. It should be noted that mere failure of any party to not insist upon any performance of any terms and conditions in the IA shall not be construed as a waiver and all rights shall remain reserved, such as the right to sue.

xxii. Under Article XVIII, Section 18.13, the project company declares that it has not obtained or induced the procurement of the IA, the PPA, or any "contract, consent, approval, right, interest, privilege or other obligation or benefit" related to the IA or the project from the GOP or any public-sector entity through any corrupt or illegal business practice.

The above is a brief explanation of the IA for oil and gas fuelled power plants. A substantially similar standard IA is used for both hydro and coal powered power plants, with the following additions.

In the IA for hydropower plants, the following are major additional clauses:

i. The first major addition is the mention of an IA with AJ&K Government as one of the key project documents. There is also a tax exemption for profits gained in AJ & K. AJ&K related provisions also feature as in events of default for both the GOP and project company. Additionally, the AJ&K IA is also subject to the GOP written approval for certain conditions for termination.

ii. There are also additional clauses relating to Force Majeure, and a force majeure event includes any change in legal or constitutional status of AJ&K or the territories which form AJ&K. A material and adverse change in operational pattern/water flow of river/canal when compared with the historic pattern of water flow is also a force majeure event if it relates to the provision of water to the project.

iii. One of the key project agreements for hydropower projects is the Water Use Agreement, instead of the Fuel Supply Agreement.

iv. A protection has been given to the project company for non-availability of water in section 18.16 of this IA. If any failure to commission or operate the plant is due to the non-availability of water in a flow rate within the technical limits defined in IA, the project company is not liable for a failure or delay in performing its obligations under the IA. Similarly, it may claim an extension for such performance. However, this does not apply if the project company would have experienced such a failure even if the water was available.

v. Both the AJ&K IA and Water Use Agreement is also covered by the guarantee provided in this IA.

In the IA for coal, the following are major additional clauses:

i. The project company and its contractors have been given a right to import coal, subject to applicable duties.

ii. One of the key project agreements is the Coal Supply Agreement, as opposed to an FSA or WUA. The project company is also required to provide the GOP with a certificate of a duly authorized officer of the project company which sets out the name of the coal supplier and the

origin of the coal to be supplied under each CSA which will last for more than 12 months.

iii. There are also additional clauses relating to Force Majeure. An additional event under a Pakistan Political force majeure event is available if there is radioactive contamination or ionizing radiation as a result of another Pakistan Political force majeure Event. The non-availability of coal due to a force majeure event under the CSA, and non-availability of water under the WUA are both included as an force majeure event.

Power Purchase Agreement

A PPA is an agreement entered between the project company and the power purchaser in Pakistan. It provides for terms for, among other things, the establishment of the power plant and the sale of power. For present purposes, the Standardized Power Purchase Agreement Draft dated 15 May 2006 for Oil & Gas as published on the PPIB website is being analysed. The PPA and IA are executed simultaneously. The main features of PPA are as follows.

i. An overview of key terms in a PPA include:

   a. terms concerning the sale and purchase of energy and capacity, including the related compensation, payment and billing;

   b. terms concerning construction, control, and operation of the power plant;

   c. establishment and monitoring of metering systems, and testing and capacity ratings;

   d. force majeure, termination, and dispute resolution terms are also included; and

   e. terms concerning liability, indemnification, insurance and taxes.

ii. The power purchaser (PP) is obligated to pay for the declared capacity after the date on which project is commissioned, as given in the particular PPA. [Article III, Section 3.1 (b) (i)]

iii. The power purchaser also retains the right to send its representatives to observe the progress of the construction, interconnection, and the operation of the power project. The project company is also bound to assist in arranging all reasonable observation visits. [Article IV, Section 4.4]

iv. The project company is required to provide reasonable evidence to the power purchaser that it has procured from a reliable supplier and transport a fuel supply agreement, supplies of fuel, and the capacity to process, transport, store and handle such fuel for use at the project. The power purchaser shall also approve the pricing terms, including price adjustment or indexation, minimum take obligations and measurement of fuel units for sale under the FSA. [Section 5.14]

v. It is acknowledged in the PPA that for the purposes of determining the Net Electrical Output (NEO) of the project, the metering systems and back-up metering systems are required. The project company shall, at its own cost and expense, procure and install devices capable of recording the NEO of the project. This metering system and its backup shall also be jointly sealed by the parties to the PPA. This seal of the metering system may be broken by the power

purchaser upon 48 hours advance notice to the project company. [Section 7.1 & Section 7.4, and Section 7.5]

vi. The project company is also obligated to not tamper with the metering system installed at the project. In case of breach, the company shall, among other things, compensate the power purchaser for two times the amount or reasonably estimated amount of any overpayment by the power purchaser which resulted from the particular tampering. Such compensation constitutes liquidated damages to the power purchaser for any such breach, and subject to Section 16.2(h) and Section 16.4, is the sole remedy available to the PP. [Section 5.15]

vii. The project company is also bound to provide the power purchaser the relevant information regarding the schedule of testing the project on an on-going basis. An annual capacity test shall also be conducted. The project company is also bound to provide copies of all test results to the PP. The power purchaser is bound to keep these test results confidential for all purposes other than for administration and enforcement of the PPA. [Section 8.1, Section 8.4 and Section 8.8]

viii. For the purposes of calculating capacity payments, the available capacity declared is in any hour the declared available capacity under the PPA, subject to certain conditions. [Article IX, Section 9.1]

ix. The power purchaser is bound to pay the project company the energy payments in accordance with procedures specified in PPA for despatched and delivered net electrical output for the relevant month, subject to calculations provided in Schedule 1. [Article IX, Section 9.2]

x. All invoices under Article IX, including the capacity payments and energy payments, shall be paid in Pakistan Rupee. [Article IX, Section 9.6 (b)]

xi. A Force Majeure clause is present, substantially similar to the IA.

xii. The list of events which constitute a company event of default is provided below. However, no such event will constitute as one if it is caused in whole or in material part by a breach by the PP, or a default by the PP, under the PPA, or by the GOP under the IA, or if it is as a result of force majeure (with the exception of Section 16.1(c)). The list is reproduced below.

a. The failure of the Company:

I. to achieve the construction start date within ninety days following financial closing; or

II. to achieve the commercial operations date not later than four hundred days after the required commercial operations date.

b. After the construction start date but prior to the achievement of the Commercial Operations Date, the failure of the company to prosecute the project in a diligent manner or, following the Commercial Operations Date, an abandonment by the company, in each case, without the prior written consent of the power purchaser and which in each case continues for a period of thirty (30) consecutive days.

c. The company's failure (i) to pay any amount due from it under the provisions of Section 9.6 of this agreement by the due and payable date for the relevant invoice or to make any other payment when required to be made, in each case, that is not remedied within thirty-five (35) Days following notice from the power purchaser to the Company stating that a payment default has occurred and is continuing and describing such payment default in reasonable detail or (ii) to post and thereafter maintain security in the amount required under *Section 2.7* as required to be maintained by the Company under this Agreement.

d. Any breach by the Company of its obligations under Section 19.9 (Assignment).

e. Except for the purpose of amalgamation or reconstruction that does not affect the ability of the amalgamated or reconstructed entity, as the case may be, to perform its obligations under this Agreement, the occurrence of any of the following events:

I. any proceeding being validly instituted under the laws of Pakistan for the dissolution of the company that is not stayed or suspended in ninety days;

II. the passing of a resolution for the dissolution or winding up of the company;

III. the voluntary filing by the company of a winding up petition, or a request for a moratorium on debt payments or other similar relief;

IV. the appointment of a provisional liquidator in a proceeding for the winding up of the company after notice to the company and due hearing, which appointment has not been set aside or stayed within ninety days of such appointment; or

V. the making by a court with jurisdiction over the company of an order winding up the company which order is not stayed or reversed by a court of competent jurisdiction within ninety days.

f. Any statement, representation or warranty by the company in this agreement (or in a certificate delivered pursuant to Section 2.8) proving to have been incorrect, in any material respect, when made or when reaffirmed and such incorrect statement, representation or warranty having a material adverse effect on the company's ability to perform its obligations under this agreement or having a material adverse effect on the rights or obligations of the power purchaser under this Agreement.

g. Any material breach or material default by the company of this agreement (other than any breach or default referred to in the other sub - sections of this Section16.1), including any material breach or default in the performance of its obligation to act in accordance with Prudent Utility Practices, which is not remedied within thirty days after notice from the power purchaser, stating that a material breach or default under of this agreement has occurred and is continuing and identifying the material breach or default in question in reasonable detail.

h. Tampering on three or more separate occasions by the company or its contractors or their employees acting in the course of their employment with the metering system or the back-up metering system.

i. After the commercial operations date, the company's failure to maintain an average available capacity (excluding, for the purpose of calculating such average, any periods of scheduled outage) of 75% or higher of the contract capacity over any period of eighteen consecutive months, unless that failure is due to a major equipment failure, in which case the eighteen consecutive month period referred to above shall be thirty consecutive months; provided the company has commenced and is diligently continuing to remedy such major equipment failure during that period.

j. The exercise by the lenders of their remedies under the financing documents with respect to either the assets comprising the complex or any ordinary share capital pledged to the lenders under the financing documents such that the company or its management are removed by the lenders from control of the complex or of the company. The failure by the lenders or the agent to deliver a succession notice pursuant to Section 19.9(c) or to transfer the complex and the rights and obligations of the company under this agreement and the Implementation agreement to a transferee within two hundred and forty days after the company or its management are removed by the lenders from control of the complex or of the company.

k. Any material breach by the company of the implementation agreement that is not remedied within thirty days after notice from the power purchaser or the GOP to the company, which notice states that a material breach of such agreement has occurred and is continuing that could result in the termination of such agreement, and identifies the material breach in question in reasonable detail. [Section 16.1]

xiii. The list of events which are a power purchaser event of default is provided below. However, no such event will constitute as one if it is caused in whole or in material part by a breach by the project company, or a default by the project company, under the PPA, or if it is as a result of force majeure (with the exception of Section 16.2(b)). The list is reproduced below.

a. As a result of the amalgamation, reorganisation, reconstruction or privatisation of the power purchaser, pursuant to the Laws of Pakistan, the power purchaser's obligations under this agreement (or those of any successor to the power purchaser):

I. cease to be guaranteed under the guarantee or cease to be guaranteed on terms and conditions which in the reasonable business judgment of the company (taking into account, inter alia, the creditworthiness of the guarantor) provide an acceptable alternative to the guarantee; or

II. assigned or transferred pursuant to the laws of Pakistan or contractually assumed by an entity or entities (in whole or in part) which does not or do not have the legal capacity to perform such obligations or such entity's or entities' obligations are not guaranteed by the GOP pursuant to the guarantee or cease to be guaranteed on terms and conditions which in the reasonable business

judgment of the company (taking into account, inter alia, the creditworthiness of the guarantor) provide an acceptable alternative to the guarantee.

b. The power purchaser's failure to pay any amount due from it under the provisions of Section 9.6 of this agreement by the due and payable date for the relevant invoice or to make any other payment when required to be made, in each case, that is not remedied within thirty-five days following notice from the company to the power purchaser stating that a payment default has occurred and is continuing and describing such payment default in reasonable detail;

c. Except for the purpose of amalgamation or reconstruction that does not affect the ability of the amalgamated or reconstructed entity, as the case may be, to perform its obligations under this agreement and provided the obligations of the amalgamated or reconstructed entity, as the case may be, continue to be guaranteed under the guarantee, or continue to be guaranteed on terms and conditions which in the reasonable business judgment of the company (taking into account, inter alia, the creditworthiness of the guarantor) provide an acceptable alternative to the guarantee, the occurrence of any of the following events:

   I. any proceeding being validly instituted under the laws of Pakistan for the dissolution of the power purchaser that is not stayed or suspended within ninety days;

   II. the passing of a resolution for the dissolution or winding up of the power purchaser;

   III. the voluntary filing by the power purchaser of a winding up petition;

   IV. the appointment of a provisional liquidator in a proceeding for the winding up of the power purchaser after notice to the power purchaser and due hearing, which appointment has not been set aside or stayed within ninety days of such appointment; or

   V. the making by a court with jurisdiction over the power purchaser of an order winding up the power purchaser that is not stayed or reversed by a court of competent jurisdiction within ninety days.

d. Any statement, representation or warranty made by the power purchaser in this agreement proving to have been incorrect, in any material respect, when made or when reaffirmed and such incorrect statement, representation or warranty having a material adverse effect on the power purchaser's ability to perform its obligations under this agreement or having a material adverse effect on the rights or obligations of the company hereunder.

e. Any material breach or material default by the power purchaser of this agreement (other than any breach or default referred to in the other subsections of this Section16.2) which is not remedied within thirty days after notice from the company to the power purchaser, stating that a material breach or default has occurred under this agreement and is continuing, and identifying the material breach or default in question

in reasonable detail.

f. Any material default by the GOP under the implementation agreement or the guarantee, which default has not been remedied by the GOP within thirty days after delivery by the company to the power purchaser of a copy of the notice sent by the company to the GOP, which notice shall state that a material default has occurred under the implementation agreement or guarantee, as the case may be, and is continuing, and identify the breach or default in question in reasonable detail.

g. Any change in law making, as a result of such change:

I. any material undertaking or obligation of:

1. The power purchaser under this agreement; or

2. The GOP under the implementation agreement or the guarantee, unenforceable, invalid, or void; or

II. unlawful for the company to make or receive any payment, to perform any obligation or to enjoy or to enforce any material right or material benefit under this agreement, where in the case of clause (i) or clause (ii) above, the effect continues for more than ninety days.

h. Include only if the power purchaser is responsible for the construction of the power purchaser interconnection facilities: the failure by the power purchaser to complete and commission the power purchaser interconnection facilities within one hundred and fifty-five days following the required commercial operations date.

i. Tampering on three or more separate occasions by the power purchaser or its contractors or their employees acting in the course of their employment with the metering system or the back-up metering system. [Section 16.2]

xiv. In the event of a power purchaser or company event of default, either may send a notice of intent to terminate, which shall be subject to a cure period. If a default has not been remedied after the cure period, the PPA may be terminated by sending a notice of termination to the party in default. [Section 16.3 and Section 16.4]

xv. Upon expiration or termination of this agreement, the parties shall have no further obligations or liabilities under the PPA except for those obligations and liabilities that (a) arose prior to such termination, (b) expressly survive such termination, including without limitation, the obligation to pay amounts due under Sections 5.15, 16.7, Article XI, and liquidated damages under Section 9.4, and/or (c) survive such termination pursuant to Section 17.1. [Section 16.6]

xvi. The project company shall not seek to terminate the PPA as a result of any default of the power purchaser without first giving a copy of the notices required to be given to power purchaser to the GOP. [Section 16.9]

xvii. The governing law for the PPA shall be the laws of Pakistan.

xviii. The specific PPA and all information disclosed under the PPA or in connection to it shall be treated as confidential, and shall not be disclosed, subject to exceptions given in Section 19.10 (c). [Section 19.10]

The above was a brief explanation of the key terms of PPA for oil and gas fuelled power plants. Substantially a similar standard PPA is used for both hydro and coal powered power plants, but with a few additions and variations.

In the hydropower plant PPA, the following are the major additional clauses:

i. The first major addition, much like the IA, is the mention of an IA with the AJ&K government as one of the key project documents. AJ&K related provisions also feature as in events of default for both GOP and project company. Additionally, the AJ&K IA is also subject to GOP written approval for certain conditions for termination.

ii. Similarly, as in the IA, a protection has been given to the project company for non-availability of water in clause 5.16 of this PPA. If any failure to commission or operate the plant is due to the non-availability of water in a flow rate within the technical limits defined in PPA, the project company is not liable for a failure or delay in performing its obligations under the PPA. Similarly, it may claim an extension for such performance. However, this does not apply if the project company would have experienced such a failure even if the water was available.

iii. Much like the IA, there are also additional clauses relating to force majeure, and a force majeure event includes any change in legal or constitutional status of AJ&K or the territories which form AJ&K. A material and adverse change in operational pattern/water flow of river/canal when compared with the historic pattern of water flow is also an force majeure event if it relates to the provision of water to the project.

iv. One of the key project documents is the WUA, instead of the FSA.

The PPA for coal has substantially similar clauses with the main difference between the mention of coal at various places instead of fuel, and the mention of a CSA instead of FSA. There is also the inclusion of non-availability of coal due to a force majeure event under the CSA, or water due to a force majeure event under WUA, as a force majeure event in the PPA. The project company is also bound to ensure that the force majeure event clause in the CSA and the WUA is identical to the one in the IA and the PPA.

A draft tripartite agreement between the CPPA for and on behalf of ex-WAPDA distribution companies, the NTDC and the project company is also used now. It has a substantially similar text to the other PPA but with certain additions, including provisions for dispute between power purchasers and the NTDC, a clause covering implementation of expert determination or an arbitral award, and NTDC events of default. A force majeure event has also been added concerning “nationwide shortage of fuel that prevents the Fuel Supplier from providing adequate deliveries of fuel to the Complex for more than twenty-one days as determined by the Director-General Oil, Ministry of Petroleum and Natural Resources”. Since NTDC has been included as a party in this tripartite agreement, it plays a role in certain aspects alongside CPPA, and has certain rights and obligations. Some of these rights and obligations previously accrued to the power purchase only.

Fuel Supply Agreement

A Fuel Supply Agreement (FSA) is an agreement entered between the project company and the fuel supplier in Pakistan. It provides for terms for, inter alia, the supply of fuel for the use of the power plant. The presence of a suitable FSA is a prerequisite for signing a PPA. The main features are as follows.

i. An overview of key terms in FSA include terms concerning the sale and purchase of fuel, its quality and title, storage and delivery, pricing, payments, certain technical terms and standard terms such as force majeure, termination, and dispute resolution.

ii. Unless the failure of performance of the fuel supplier is excused under the terms of agreement, such as, inter alia, a force majeure event, the fuel supplier indemnifies the project company for any costs, damages, penalties or losses which are directly caused by the failure of the fuel supplier to deliver fuel which was ordered and paid for by the project company in accordance with the FSA. However, there are exceptions to this, inter alia, if the project company was to incur such cost, damage, penalty or loss regardless of the supply of fuel, then the fuel supplier is not liable or if the project company is compensated through a policy of insurance. This is subject to a limitation of damages clause.

iii. A force majeure clause similar to the one found in the PPA is also present.

iv. The fuel supplier may send a notice of termination for the following non-exhaustive list of events of default:

    a. if the project company abandons the power project as defined in the FSA for a period of ninety days without prior written notice, and prior consent of the fuel supplier;

    b. termination of the IA or the PPA on the basis of a ‘company event of default’; and

    c. any material breach by the project company which is not remedied within ninety days of notice from the fuel supplier.

* * * * * * *

3. IPP RELATED ISSUES IN PAKISTAN

3.1. Introduction

The first major milestone in the liberalization of the power sector in Pakistan was the award of the first IPP, namely the Hub Power Project or commonly referred to by the project company's name, HUBCO, a 1,292MW thermal power project. HUBCO was the first power project to be financed by the private sector in South Asia. Financial closure of the project took place in January 1995. It was a BOO project with a contract period of 31 years. The World Bank provided a Partial Risk Guarantee for $240 million in 1995. The project was commissioned in 1997. It was a model for the formulation of private power projects in Pakistan which has since generated substantial interest from international investors.[34]

In the four years of negotiating the Hub power deal, the GOP recognized the need to strengthen and fine-tune the measures put in place in 1988 for the promotion of private energy to take into account the feed-back received from private investors and the international financial community.[35] Refinement was also needed to make Pakistan internationally competitive in attracting financial resources, and to integrate in these measures the actions taken by governments to deregulate the economy, and increased reliance on the private sector.[36] The Task Force on Energy recommended in February 1994, a new policy for private energy which integrated all the measures, amendments and refinements introduced since 1988.[37] The generous terms offered to investors in the HUBCO deal became the basis of the 1994 Power Policy.[38] KAPCO was the first publicly owned thermal power plant that was privatized by the GOP under the 1994 Power Policy in 1996.

The 1994 Power Policy opened up the power market to the private sector, attracting $5 billion in investment and adding almost 4,500 MW of generation capacity.[39] Under this policy, 19 IPPs reached financial close for an additional 3400 MW though four projects, totalling 435MW were subsequently terminated. Pakistan earned high praise amongst international developers and financiers and was a model for private sector development in the power sector in the mid 1990s. It was described as "the best energy policy in the whole world" by the US Secretary of Energy following a trip to Karachi in September 1994. That same year, the HUBCO's project was named project finance "Deal of the Year" by Euromoney Institutional Investor.

The question then arises, when and how did Pakistan develop its complex relationship with the IPPs? One may argue, this began soon after the signing of the first PPA between WAPDA and HUBCO, notably following a change in government in 1996. The GOP was of the view that further increases in consumer tariffs would be politically difficult if there was no accommodation by IPPs to reduce their price to WAPDA for the power purchased. This was especially so given its perceptions that IPP prices were out of line with the international market, that IPPs are very profitable, and that there may have been corruption in some of the transactions approved by the

[34] Mukherjee, M. and Pratap, K., n.d. IMPACT OF THE GLOBAL FINANCIAL CRISIS ON INVESTMENTS IN SOUTH ASIA'S ELECTRIC POWER INFRASTRUCTURE. Energy Sector Management Assistance Program (ESMAP) and the World Bank, 56849-SAS.
[35] Staff Appraisal Report Pakistan Private Sector Energy Development Project II; Report No. 13006-PAK (World Bank)
[36] Staff Appraisal Report Pakistan Private Sector Energy Development Project II; Report No. 13006-PAK (World Bank)
[37] Staff Appraisal Report Pakistan Private Sector Energy Development Project II; Report No. 13006-PAK (World Bank)
[38] Kamal A. Munir & Salman Khalid, 2012. "Pakistan's Power Crisis: How Did We Get Here?," Lahore Journal of Economics, Department of Economics, The Lahore School of Economics, vol. 17(Special E), pages 73-82, September.
[39] Bacon, R., 2019. *Learning From Power Sector Reform: The Case Of Pakistan*. [online] World Bank Group, p.9. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 8 May 2020]

previous elected government. In 1997 against a worsening fiscal background and unwillingness to adjust retail tariffs, the government attempted to lower IPP payments through various committees of inquiry and sponsor-by-sponsor negotiations. Not only was this unsuccessful, it created confusion and fears of the GOP not honouring contracts. HUBCO was accused of corruption in securing the amendments to the PPA which resulted in a court mandated reduction in the capacity price to be paid by WAPDA. HUBCO denied that corruption had taken place and considered the charges as a means to coerce the company to lower its tariff. GOP alleged that the PPA amendments, which substantially increased the price of electricity produced during the first years of plant operation, were corruptly obtained or otherwise fraudulent.[40] In addition, in 1998 several other IPPs were issued notices of intention to terminate by the GOP on grounds of corruption and two on technical grounds which represented about two-thirds of private power capacity contracted.

Tariff and financial disputes between WAPDA and HUBCO and KAPCO seriously impeded the development of the power sector when the energy sector restructuring program under ADB was formulated and approved in 2000.[41] In 1998, a framework mechanism was introduced assisted by the World Bank for the GOP called “Orderly Framework for IPP Negotiations” to prevent further deterioration of the situation and settlement of issues with IPPs. These cases were eventually resolved, particularly in the case of HUBCO with the involvement of the World Bank and Pakistan to establish a framework for attracting IPPs.

It is in this context that the history of Pakistan’s relationship with the first IPP and several subsequent IPPs was set.

3.2. Investment regime

Pakistan significantly contributes to the overall economy of South Asia, but, for many years, it has been facing a severe energy crisis.[42] Pakistan’s current investment policy was issued in 2013 and foreign direct investment plays a key role in the country’s economic development like any other developing country. Pakistan has struggled with its current account deficit and depleting foreign reserves.

In addition to the overall investment policy of Pakistan, as discussed above, the IPPs have largely benefited from highly incentivized investment policies providing a cost-plus tariff methodology. Most governments saw IPPs as a means of attracting foreign direct investment in Pakistan and according to the statistics of the BOI, the power sector indeed has been a source of large foreign direct investment in Pakistan compared to other sectors. As foreign direct investment plays an important role in a country’s economic development the government in a bid to attract foreign investors established an attractive investment policy in the power sector. Whether that approach was right or wrong is perhaps easier to comment in hindsight, however, the circumstances prevalent at the relevant time should be taken into account. Given the competitive nature of the

[40]Fraser, Julia M..2005.Lessons from the independent private power experience in Pakistan (English). Energy and Mining Sector Board discussion paper ; no. 14 Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/729661468285358780/Lessons-from-the-independent-private-power-experience-in-Pakistan

[41] Performance Evaluation Report – Pakistan: Energy Sector Restructuring Program (2014) (Asian Development Bank)
[42] Latief, Rashid & Lefen, Lin. (2019). Foreign Direct Investment in the Power and Energy Sector, Energy Consumption, and Economic Growth: Empirical Evidence from Pakistan. Sustainability. 11. 192. 10.3390/su11010192.

emerging markets, it is not uncommon for foreign investors to engage in a forum-shopping exercise, in other words to carry out a country assessment to determine whether they ought to invest in a particular country as opposed to another. With a large number of developing economies and their inherent risks and issues, developing countries' governments put in place attractive investment policies for foreign investors and set up road shows to highlight their investment regime and attract the much-needed foreign capital. Even some of the more stable and rich economies, such as GCC countries also encourage foreign investment and have recently introduced various measures and incentives to attract foreign investment. In this juxtaposition and given the competition, how does Pakistan present itself as an attractive market for foreign investment?

A country's investment regime invariably represents its economic health and level of risk. These IPP investment policies have been credited as the root cause of the Circular Debt, which is one of the key issues affecting the Pakistani power sector today. However, in fairness, to a large extent these policies were the result of intense work of the public sector together with multilateral development banks and international financial institution who had lent GOP sovereign debt in an attempt to reduce the burden of cost intensive infrastructure projects on the public expenditure and to hopefully to divert funds to other critical developmental projects.

Credit ratings of major credit rating agencies are classified as follows.

	Moody's	S&P	Fitch	Rating Description
Investment Grade	Aaa	AAA	AAA	Prime
	Aa1	AA+	AA+	High Grade
	Aa2	AA	AA	
	Aa3	AA−	AA−	
	A1	A+	A+	Upper Medium Grade
	A2	A	A	
	A3	A-	A-	
	Baa1	BBB+	BBB+	Lower Medium Grade
	Baa2	BBB	BBB	
	Baa3	BBB-	BBB-	
Junk	Ba1	BB+	BB+	Non Investment Grade Speculative
	Ba2	BB	BB	
	Ba3	BB-	BB-	
	B1	B+	B+	Highly Speculative
	B2	B	B	
	B3	B-	B-	
	Caa1	CCC+	CCC+	Substantial Risks
	Caa2	CCC	CCC	Extremely Speculative
	Caa3	CCC-	CCC-	In Default with Little Prospect for Recovery
	Ca	CC	CC+	
		C	CC	In Default
			CC-	
	D	D	DDD	

Figure Source: Columbia Business School

Pakistan's current credit rating stands as follows[43]:

i. Standard & Poor's credit rating for Pakistan stands at B- with stable outlook;

ii. Moody's credit rating for Pakistan was last set at B3 with stable outlook; and

iii. Fitch's credit rating for Pakistan was last reported at B- with stable outlook.

In general, a credit rating is used by sovereign wealth funds, pension funds and other investors to gauge the credit worthiness of the country. This has a major impact on the country's borrowing costs and its country risk premium.

Credit rating of a country and its risk-free rate plays an important role in creating a conducive investment environment, particularly involving the public sector participation. Historically, Pakistan's credit ratings since the 1990s have remained largely between extremely speculative to non-investment grade speculative.

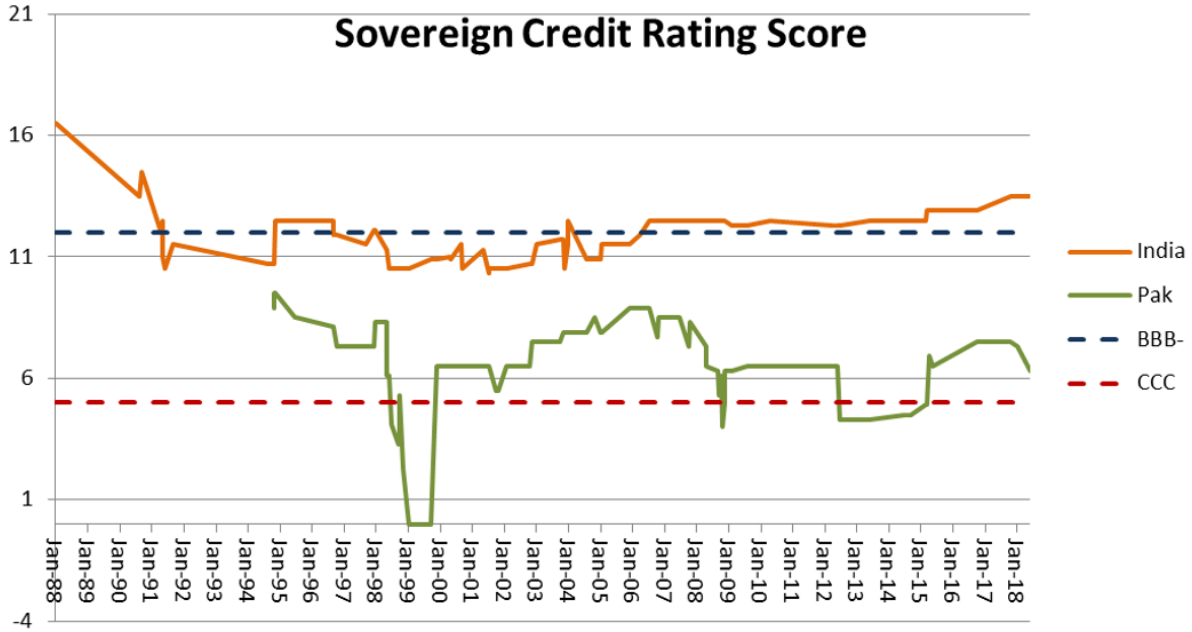

Figure source: https://www.pide.org.pk/psde/pdf/AGM34/papers/Jamshed-Y-Uppal.pdf

It is in this context that the overall IPP structure needs to be considered taking into account substantial public sector involvement in the IPP sector and payment obligations of the GOP.

It is notable to mention here that WAPDA for the first time secured an international credit rating by Fitch and S&P of B-, in preparation for a green Eurobond issuance.

3.3. Key issues affecting the power sector

The Pakistani power sector in general and the IPP sector in particular has faced several issues since the privatisation of the sector. Some of the high-level issues that have impacted IPPs in

[43] Tradingeconomics.com. 2020. Pakistan - Credit Rating. [online] Available at: <https://tradingeconomics.com/pakistan/rating> [Accessed 11 July 2020].

Pakistan are as follows.

Procurement of IPPs and corruption

The procurement of IPPs in Pakistan as mentioned above has remained a fair source of controversy. There has been little to no competition in the procurement of IPPs. The first IPP, HUBCO, had a negotiated PPA and tariff as it was before the sector was unbundled and NEPRA was introduced. Subsequently the policies for the power sector have been termed as overly incentivizing, guaranteeing exceptionally high returns to investors, risk profile heavily favouring the IPP and producing expensive electricity in general compared to other regional countries.

A similar issue was faced during the course of procurement of rental power projects in 2008-09, which remained the subject matter of persistent controversy and adverse media.

IPP Tariff

Post privatisation and establishment of the sector regulator, the tariff is determined by NEPRA at each stage of the power supply chain. NEPRA uses different pricing criteria at different stages of the supply chain. For the IPP's the tariff setting depends upon a rate of return where all the costs incurred by the IPP in their operations plus a reasonable rate of return are ensured in the tariff setting.[44]

The electricity generation or IPP tariff has been a source of contention in Pakistan irrespective of the power policy under which the IPPs were established. It is this tariff on which the state-owned power purchaser buys the generated electricity under the PPA. This is primarily due to the fact that Pakistan offered an indicative bulk tariff in its power policies with an indexation mechanism for fuel and inflation under its initial power policies – a trend that continued. The actual payment of tariff comprised two components, i.e. a "fixed" capacity price and a "variable" energy price. The capacity price was guaranteed whereas the variable energy price is dependent on the power dispatched. The policy guaranteed a fixed return over the life of the project regardless of the efficiency and performance of the plants.

The 1994 policy put the exchange risk and the responsibility of fuel supply on the off-taker. Subsequently, in 2002 Power Policy fuel supply risk was moved to the IPPs. This was again changed in the 2015 power policy where imported coal projects have the option of applying for a fuel supply agreement with the government. This risk allocation was also used as precedent in the wind power projects that were commissioned under the 2006 renewable energy policy; wind-risk was placed with the purchaser. However, the new tariffs for wind projects are now placing the wind risk with the private investors and IPPs. [45]

[44] Ullah, Kafait. (2013). Electricity infrastructure in Pakistan: an overview. 4. 11-26.

[45] Bacon, R., 2019. *Learning From Power Sector Reform: The Case Of Pakistan*. [online] World Bank Group, p.9. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 8 May 2020]

Policy	*Tariff Structure*
1994 Power Policy	● The power shall be purchased by WAPDA/KESC under a long-term contract covering the concession period. ● The GOP offered a Bulk Power Tariff of US Cents 6.5/kWh, paid in PKR, as an average for the first ten years for sale of electricity to WAPDA/KESC. ● A levelized tariff of US Cents 5.9/Kwh (Rs.1.776/kWh) over the life of the project was calculated as a final parameter for acceptance of the tariff. This was to provide flexibility to the sponsors to work out a year-wide tariff (resulting in the required levelized tariff) which matches their annual debt service requirements. ● A premium of US Cents 0.25/Kwh based on the energy sold to WAPDA/KESC during the first 10 years of project operations was allowed for the projects above 100 MW which were commissioned under this scheme by the end of 1997. ● The Bulk Power Tariff applied to all BOO thermal power projects, all hydro projects up to 20 MW and all other projects based on non-conventional/renewable energy sources. For hydel units, the levelized tariff was to be applicable for the first 30 years of the project life. ● For hydro projects exceeding 20 MW, the tariff was to be decided on a project to project basis with a 25% rate of return on equity. ● The tariff of US Cents 6.5/Kwh is an indicative tariff which was calculated on annual plant factor of 60%. The actual payment of the tariff comprised two components, CPP and EPP. ● Capacity price was required to be paid monthly and covered debt servicing, fixed operation and maintenance cost, insurance expenses and return on equity. The payment of CPP on a monthly basis would keep investors' profit insulated against variations in the quantum of energy purchased by WAPDA/KESC. ● The EPP was required to be paid in Rupee per kWh based on actual energy sold to WAPDA/KESC. This included an element of fuel price as a 'pass-through' item. As the CPP is assured as per terms of the Concession Agreements, there was no guarantee given for the purchase of a specified amount of power. However, non-purchase of electricity was not to affect the smooth operations and investors' profits as envisaged in the base tariff profile. ● A mechanism was provided for indexation/adjustment of certain tariff components based on Rupee/Dollar exchange rate, fuel price variations and inflation, as described in Annexure-I of the 1994 Power Policy. ● The following were necessary for tariff to be accepted for bulk power tariff: ● The average tariff for the first ten years does not exceed US Cents 6.5/Kwh (Rs. 1.952/Kwh) ● The annual base tariff does not exceed US Cents 8.33/kWh (Rs.2.5/Kwh) in the first year and US Cents 6.66/Kwh (Rs 2/Kwh) in any subsequent year. ● The levelized tariff for the life of the project does not exceed US Cents 5.91/Kwh (Rs. 1.776/Kwh).

1995 Power Policy		● The power shall be purchased by WAPDA under a long-term contract covering the concession period. The bulk power tariff would apply to all hydropower projects developed in the private sector. ● For hydropower plants up to 20 MW, a bulk power tariff of US Cents 6.1/Kwh was to be paid in Pak Rupee, as an average for the first ten years for sale of electricity to WAPDA, and a tariff of US Cents 5.57/Kwh for first 25 years (without FERI) was calculated as a final parameter for acceptance of tariff. It was to provide flexibility to the sponsors to work out a year-wise tariff (resulting in a tile required levelized tariff) which matches their annual debt service requirements. ● For hydropower Plants between 21 MW and 300 MW, a bulk power tariff of US Cents 6.0/Kwh was to be paid in Pak Rupee, as an *average for the first ten years for sale of electricity to WAPDA, and a levelized tariff of US Cents 4.7/Kwh for first 25 years of the project was calculated as a final parameter for acceptance of tariff. It was to provide flexibility to the sponsors to work out a year-wise tariff (resulting in the required levelized tariff) which matches their annual debt service requirements. The breakup of average tariff included (prices in US Cent/Kwh) Water Charges (0.233), Variable O&M (0.093), Escalable Component (1.404), and Non-Escalable Component (4.270) for a total of 6.00. The tariff was to be converted to PKR at financial close and indexed as per provisions of the policy.* ● *For hydropower plants of capacities above 300 MW, and all those plants with (seasonal) reservoirs, the bulk purchase tariff was to be decided on a case by case basis.* ● *The bulk power tariff included US Cents 0.233/Kwh as price for use of water by the private power company. This price was to be paid in equivalent Rupee, throughout the term of the PPA. It was payable to the concerned province as consideration for use of its natural resource and to provide resources for investment in the sector.* ● *The bulk purchase tariff was an indicative tariff which was calculated on an annual plant factor of 50%. The energy available from hydropower plants was to be given highest priority in load despatch.* ● *The payment would be made on the basis of actual energy sold to WAPDA during a month or, in case of non-despatch by WAPDA, for ninety five percent of the energy that could have been generated by the hydropower plant (based on average historic hydrology for that month).* ● *The "take or pay basis" was to ensure that the hydropower plant is given priority in load despatch as compared to a thermal source and that the investor/sponsor receives an assured minimum amount every month to meet the O&M, debt servicing, insurance charges and ROE etc.* ● *The amount calculated for the bulk power tariff was payable on a monthly basis.* ● *WAPDA was to deduct the price for use of water at the rate specified above from all payments made to the investor for purchase of energy.* ● *The following were necessary for tariff to be accepted for bulk power tariff when submitting the year-wise tariff profile for first 25 years of a project:* ● *For hydropower plants up to 20 MW capacity, if the average tariff for the first ten years did not exceed US Cents 6.1/Kwh, the annual* base tariff, without FERI for plants did not exceed US Cents 6.33/Kwh for the first year

		and US Cents 6.00/Kwh in any subsequent year, and the levelized tariff for the first 25 years of the project did not exceed US Cents 5.57/Kwh. ● For hydropower plants between 21 MW and 300 MW, the average tariff for the first ten years did not exceed US Cents 6.0/Kwh. The annual base tariff for plants did not exceed US Cents 6.33/Kwh for the first year and US Cents 6.00/Kwh in any subsequent year. The levelized tariff for the first 25 years of the project did not exceed US Cents 4.70/Kwh. ● The BPT consisted of four components, i.e. water charges, variable O&M component, the escalable component and the non-escalable component. The breakup of the tariff was following: (a) water charges. The price for use of water at US Cents 0.233/Kwh was included in the bulk power tariff and was to be paid in equivalent Rupees, (b) the variable O&M component included the variable O&M costs, (c) the escalable component included the fixed O&M costs, the insurance costs, the administrative cost and the return on equity etc. Once determined at the time of financial close, the base figure was to remain unchanged during the project for 25 years and only indexation would be provided as per procedure, and (d) the non-escalable component included the debt servicing charges including payments of principal, interest and other fees to the lenders. This component would decline with the passage of time as the loans are repaid. ● The terms were specified on which indexation/adjustment of the bulk power tariff were available.
2002 Power Policy		● The tariff was denominated in PKR. ● Bidders were to quote tariff in two parts: (1) EPP, and (2) CPP. ● The RFP could specify a maximum percentage of the overall tariff for the capacity component. The CPP in case of hydel projects, which traditionally have a relatively low EPP, will be approximately 60% to 66% and the EPP will be approximately 40% to 34% of the levelized tariff. ● The CPP will be expressed in Rs/kW/month; the EPP in Rs/kWh. ● The CPP will be paid provided the plant is available for despatch to standards defined in the PPA. The EPP will be paid based upon the amount of kWh of energy despatched. ● In order to ensure sustained interest of the Sponsor during the entire life of the project, the sum of EPP and non-debt related CPP (computed on a kWh basis at the reference plant factor specified in the RFP) will remain constant or increase over time. The debt-related CPP stream may match the loan repayment stream. ● The EPP was to include the Water Use Charge. ● The EPP for thermal projects consisted of fuel component based on fuel price and variable operation & maintenance charges as stated in the RFP or quoted by the bidder. ● Bidders could include separate components in the CPP and the EPP which are subject to adjustment only for variations in the exchange rate between the Pakistan Rupee and US Dollar, between the reference date and the date of payment. ● Adjustment for exchange rate fluctuations will be effected quarterly. Exchange rate fluctuations in excess of 5% during any month will be allowed.

	● Escalation for dollar components to cover dollar inflation will not be provided. However, bidders may include components in the EPP and CPP, which are escalable for Pakistan Rupee inflation. Escalation, except for water use charges, will be effected quarterly. ● All sponsors were required to submit yearly tariff profiles in real terms at time of bidding.
2015 Power Policy	● The tariff will be offered in two parts: (1) EPP; and (2) CPP. ● The EPP will comprise fuel cost/water use charge, variable O&M and any variable component determined by NEPRA. ● The EPP will be paid based on the amount of kWh (Rs./Kwh) delivered at the point of delivery. ● The CPP will comprise Fixed O&M, Return on Equity, Debt Servicing, Insurance, Cost of Working Capital, and any fixed component determined by NEPRA. ● The CPP will be expressed in Rs./Kwh or Rs./kW/month which is payable provided the plant is made available for despatch by the company as per the standards defined in the PPA. ● The tariff will be denominated in Pakistan Rupee. ● To mitigate the exchange rate variation risk, specified adjustments for exchange rate variations of US Dollar, Pound Sterling, Euro and Japanese Yen shall be allowed. The adjustment related to debt servicing shall be allowed for the aforesaid currencies. ● To ensure sustained interest of the sponsor during the entire life of the project, the sum of EPP and non-debt related CPP (computed on a kWh basis at the reference plant factor) will remain constant or increase over time. The debt-related CPP stream may match the loan repayment stream, except in case of upfront tariff.

Circular Debt

Intricately linked to the issue of tariff, the issue of Circular Debt. ECC has defined the Circular Debt as follows:

"Circular debt is the amount of cash shortfall within the CPPA, which it cannot pay to power supply companies. The overdue amount is a result of: (a) the difference between the actual cost and the tariff determined by NEPRA which is the distribution company's loss over and collections under that allowed by NEPRA, (b) the delayed or non-payment of subsidies by government, and (c) delayed determination and notification of tariffs. It is the government's policy to reduce, limit to a certain amount which would be reduced over time, and eliminate the causes of the circular Debt."[46]

The general perception is that the Circular Debt is a direct result of the tariff regime of the IPPs, in other words state-owned utilities are forced to purchase expensive power through the IPPs. In addition to the generation tariff, the high cost of circular debt is attributable to excessive transmission and distribution losses are a key cause of Pakistan's significant circular debt

[46] National Power Tariff and Subsidy Policy guidelines 2014

problem.[47] Also, the CPPA is unable to recover full value from the DISCOs and therefore is unable to pay back the IPPs. in order to pass those amounts onto power generators. DISCOs cannot recover all billable amounts and hence are unable to pay CPPA in full, coupled with theft of electricity. A difference between the high cost of generation and lower tariffs for some consumers creates a deficit. Government payments to cover the difference are often delayed, a point that is directly relevant to the credit rating of the State and the public sector entities.

In an attempt to retire the Circular Debt, the GOP established PHPL as a special purpose vehicle to park long term debts of the government owed to the power sector. PHPL uses government guarantees to borrow from commercial banks, typically 5–7 year borrowing at KIBOR+2 percent, with the proceeds used to reduce CPPA liabilities to producers. Servicing of PHPL loans is partly made through a surcharge in the tariff, equivalent to around PKR 40 billion annually, that covers around ½ of the servicing costs. The remaining amount is covered by diverting power sector revenues, which again generates additional arrears.[48]

Contractual Issues

The late payment culture in the public sector at large, coupled with a substantial Circular Debt owed by CPPA and government liability in general to IPPs creates additional contractual complications under the PPA and the Sovereign Guarantee provided by the GOP under the implementation agreements with the IPPs.

The delay in payments not only triggers a late payment charge of about KIBOR+4 percent but if the amount owed to the IPP exceeds five months then the IPP is entitled to suspend the dispatch of power and remain entitled to payment of the capacity payments under the PPA.

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[47] *Pakistan's Power Future Renewable Energy Provides a More Diverse, Secure and Cost-Effective Alternative* (2018) Institute for Energy Economics and Financial Analysis

[48] IMF Country Reports 19/380 *Pakistan: First Review Under the Extended Arrangement Under the Extended Fund Facility and Request for Modification of Performance Criteria Press Release*; Staff Report; and Statement by the Executive Director for Pakistan (International Monetary Fund).

4. POWER SECTOR AUDIT, CIRCULAR DEBT RESOLUTION AND FUTURE ROAD MAP

4.1. March 2020 Report by the Committee for Power Sector Audit, Circular Debt Resolution and Future Road Map

The Prime Minister's Inquiry Commission on Debt had started probing IPPs for allegedly making huge ungainly profits. Officials from the Power Division, PPIB, CPPAs and NEPRA were requested to appear in inquiries carried out by the national anti-graft body. There was a perception that the anti-graft body was attempting to exert pressure on investors to review the tariffs under their PPAs. According to media reports the investigation centred on whether the IPPs had presented falsified, deceptive and fraudulent figures on account of the costing factors in order to obtain a high tariff. There were also speculations that NEPRA officials were hands in glove with the IPPs and accepted the falsified and fraudulent costs without verification and without checking the efficiency level of the power production units.[49] Interestingly, NEPRA, in its annual statutory state of the industry report for 2018 also commented on the role of NAB. It stated that almost all projects on which NEPRA had made determinations in the past were questioned by the NAB (National Accountability Bureau), and the way the investigations are being conducted, it has completely stifled the morale of NEPRA professionals. It further stated that the matter had come to the jurisdiction of NEPRA and the boundaries beyond which NAB may not intervene. It further stated that a holistic approach is required to preserve the confidence of the sector in general and that of NEPRA in particular.[50]

In August 2019, the Prime Minister constituted a committee headed by former SECP chairman Muhammad Ali, and comprising representatives from ISI, FIA and SECP and other members. The committee submitted its detailed findings and recommendations to the Prime Minister in its report title "Power Sector Audit, Circular Debt Resolution and Future Roadmap". The mandate of this committee was to examine the causes of high cost of electricity in the country, a review of the IPPs and ways to resolve the circular debt and inefficiencies of the transmission and distribution system and further suggest a roadmap for the power sector structure.

The report carried out an analysis of IPPs established under various policies and a review of their profitability and dividends and calculated purported excess payments made to each IPP by the GOP and its power sector utilities. It also addressed circular debt commenting on the high cost of generation, transmission and distribution deficiencies and regulatory and fiscal inefficiencies and measures to deal with the existing stock of circular debt and the way forward. The report also proposed a future road map and an implementation plan in respect of its review.

Below is a summary of the key issues identified in the report, though this document does not intend to delve into technical detail of the transmission and distribution inefficiencies.

4.2. Profitability of IPPs and excess payments

The report addresses the profitability of the IPPs established under various regimes and their tariff calculation method.

[49] Thenews.com.pk. 2020. Investors In Pakistan's Power Sector Under Siege. [online] Available at: <https://www.thenews.com.pk/print/516064-investors-in-pakistan-s-power-sector-under-siege> [Accessed 24 July 2020].
[50] Nepra.org.pk. 2020. [online] Available at: <https://nepra.org.pk/publications/State%20of%20Industry%20Reports/State%20of%20Industry%20Report%202018.pdf> [Accessed 24 July 2020].

1994 Power Policy

Under the 1994 Power Policy, a bulk power tariff in US Dollars indexed to the Pakistani Rupee was offered by the Federal Government as an upfront tariff. The report notes that a review of the profits and dividends from the available financial statements for the 1994 Power Policy thermal IPPs was carried out that showed that almost all IPPs reported enormous profits. It further notes that large chunks of the profits were withdrawn in the form of dividends. The report notes that the recovery of equity in the form of dividends was as high as up to 22 times the initial equity injection.

The report further states that six IPPs have reported an average annual return of more than 60% and four IPPs have earned an annual return of around 40%.

2002 Power Policy

In respect of IPPs established under the 2002 Power Policy, the report states that it reviewed financial information from COD until 30 June, 2018 or 31 December, 2018 depending upon the accounting year end of the IPP under review. It further stated that the financial statements revealed that:

i. almost every IPP set up under that policy reported exorbitant profits;

ii. large chunks of the reported profits were withdrawn in the form of dividends by the sponsors of IPPs; and

iii. the investment payback period for most projects was extremely short, ranging between 1-4 years.

It further reported that a review of NEPRA's tariff determinations for twelve IPPs revealed that all of them had been allowed an IRR of 15% with US Dollar indexation. The report states that the Guidelines for Determination for Independent Power Producers issued by the Federal Government in November 2005 require that tariff should be determined allowing a "reasonable" IRR on equity, and IRR should be equal to the long term interest rates based on auction of 10 year Pakistan Investment Bond held during the last six months plus a premium to be determined by NEPRA. It reported that the accounting profit of the twelve IPPs under review amounted to Rs. 203 billion, which, after being adjusted, amounted to Rs.152.40 billion. The report stated that the figures are higher than the allowed regulatory profit at 15% USD IRR which would work out to Rs. 92.21 billion and after adjusting for the negative impact of a project, the difference came to Rs. 64.22 billion.

It is suggested that this occurred for the following reasons:

i. savings on account of fuel costs in effect plants being more efficient than being reported and O&M expenses; and

ii. duplication in currency depreciation in ROE, NEPRA allowing a ROE of 15% in Rupee in its tariff while relying on 10.2% yield of 10-year Pakistan Investment Bond (PIB) as the risk-free rate. This duplication took place on account of a decision of the ECC dated 23 May 2007 permitting Rupee to Dollar indexation irrespective of whether the equity invested was

in local or foreign currency.[51] The report notes that the interest rate differential between the risk free rate under the PIB and USD interest rate took into account any impact of future depreciation of the Rupee against the Dollar. Therefore, subsequent to the decision of the ECC, the continued provision of IRR on the basis of Rupee based Pakistan Investment Bond along with USD indexation led to duplication of premium of Rupee depreciation.

The report further states that NEPRA had allowed a return to IPPs based on 15% US Dollar IRR, assuming payment of return on an annual basis. The report states that CPPA pays the CPP to IPPs, including ROE, on a monthly basis. Because of this mismatch between the timing of payment envisaged by NEPRA for computation of IRR which is on an annual basis versus the actual payments by CPPA on monthly basis, the IRR earned by these IPPs works out to be 16%, which is 1% higher than the 15% IRR allowed by NEPRA. A similar comment is made in the report in respect of allowance for debt repayments to IPPs by NEPRA on a quarterly basis, however, CPPA makes actual payment of CPP to IPPs, including debt repayments, on a monthly basis. This mismatch between the timing of payment envisaged by NEPRA for computation of debt service component on a quarterly basis versus the actual payments made on a monthly basis, leads to additional working capital availability for the IPPs. The report notes that the cost of working capital is already a part of the tariff awarded to these IPPs in general and this amounted to duplication.

The report notes that according to NEPRA's tariff determination, the RFO based power plants were required to maintain fuel inventories sufficient to operate the complex for 30 days at 100% load at all times. For this purpose, the IPPs were allowed a cost of working capital component within the tariff. However, a review of the fuel inventory data for these IPPs revealed that they have largely not maintained their fuel inventory levels, even though these IPPs were receiving payment from CPPA based on predetermined fuel inventory levels.

The report makes reference to other unidentified savings by IPPs. It is not clear what these unidentified savings are and how these unidentified savings were calculated to comment on the approach taken by the committee.

2015 Power Policy (Coal Based Plants)

The report analysed the two imported coal-based power projects namely Huaneng Shandong Ruyi (Pak) Energy - Sahiwal and Port Qasim Electric Power Company. It excluded public sector IPPs, comprising RLNG plants, namely Haveli Bahadur Shah Power Project and Balloki Power Project, which are owned by Federal Government, and Quaid-e-Azam Thermal Power Pvt. Ltd. (Bhikki) owned by the Government of Punjab although NEPRA finalized upfront levelized tariffs for imported and local coal projects along with corresponding efficiencies and project costs.

The report noted that NEPRA had granted excess project costs allowance to the two projects under review for following reasons:

i. actual construction period of 27 - 29 months being less than the 48 months' time assumed by NEPRA in its determinations; and

[51] ECC decision dated 23 May 2007, GOP:
"(vii)The Return on Equity should be allowed in one currency i.e. US Dollars. All Return on Equity (for foreign exchange and rupee-based equity) be converted to equivalent US Dollars amount at reference exchange rate (as noted in NEPRA's determination) and adjusted for variations in USD/Rs rates as presently being done for return on foreign component of equity."

ii. misrepresentation by the sponsors of both IPPs as interest payments against these borrowings were lower than those reported to NEPRA.

The report notes that the Sahiwal project had recently commenced. The report further noted that the ROE of the project is indexed with US Dollar and further assuming that US Dollar appreciates against the Rupee at an average rate of 6% per annum, the project would receive an excess payment of Rs. 291.04 billion over the next 30 years. The report further noted that NEPRA had corrected the error of construction period and assumed actual construction period to compute return during the construction period in respect of the Port Qasim project.

The report further noted that mismatch in payment timing and tariff assumptions affected the actual IRR and provided the projects with excess working capital.

Moreover, the report also stated that expected overpayment to public sector RLNG plants would also need to be rectified by NEPRA before their privatization.

Renewable Power Plants (2006 and 2013 RE Policies)

Wind

Renewable projects work on a feed-in or upfront tariff. The report notes that there is minimal difference between the annual return earned based on adjusted profit and the ROE allowed as per tariff of these IPPs. However, the report noted anomalies in the tariff determinations of wind IPPs and suggested immediate rectification. It noted that energy generated in excess of the minimum benchmark would lead to additional tariff payments in a predetermined ratio which includes debt and interest components. With respect to production over and above the minimum benchmark, the IPP will be able to recover debt and interest (beside O&M and ROE) over and above the amount that actually has to be paid to the lenders. According to the report, the actual power generation did not meaningfully exceed the minimum benchmark during the operational period under review. The report noted that though this had not resulted in any excess payments thus far, this tariff determination methodology would be problematic in the future as any payment above the production benchmark will effectively translate into excess payment because the debt and interest components are already fully recoverable in the fixed costs guaranteed up to the production benchmark.

The report further noted that mismatch in payment timing and tariff assumptions affected the actual IRR and provided the projects with excess working capital.

Solar

The committee reviewed NEPRA's tariff determinations including its internal workings, assumptions and calculation of IRR. The tariff is single-part, i.e. EBT which includes debt repayment and ROE to the sponsors.

The report notes that under the solar tariff regimes, the power producer ought to have recovered the entire cost of debt interest, O&M, insurance and ROE provided they operate the plant at the minimum benchmark. Any energy generated in excess of the minimum benchmark leads to additional tariff payments in a predetermined ratio. Payment of the debt and interest components are already accounted for at the net annual capacity factor. Therefore, if the IPP operates in case

of excess generation, it will be able to recover debt and interest over and above the amount that is actually payable to the lenders.

The report noted that though this had not resulted in any excess payments, going forward, this tariff determination methodology could be problematic as payments above the generation benchmark will effectively translate into excess payment because the debt and interest components are already fully recoverable in the fixed costs guaranteed up to the production benchmark.

Cogeneration Framework 2013

NEPRA had allowed a return to the Bagasse IPPs based on 15% US Dollar IRR to be paid annually. In reality, the IPPs are paid their CPP on a monthly basis by CPPA, which includes ROE. Due to this mismatch between the timing of payment for computation of IRR, the IRR earned by these IPPs is higher than the IRR allowed by NEPRA as in the case of other IPPs noted in the report.

The report noted that bagasse power plants under review were producing electricity in excess of the plant factor used by NEPRA for tariff determination, however that matter is now pending determination by the Power Division following a ruling of the Islamabad High Court.

Conclusion

The report notes that IPPs have earned exorbitant returns generally attributable to:

i. misinformation - information shared by IPPs at the time of tariff determination and COD adjustment was not commensurate with actual performance; and

ii. weakness in governance - weak regulatory oversight and non-reconsideration of incentives offered by the GOP.

The report recommends that, in respect of:

i. misrepresentations and misreporting claims – an amount of Rs. 64.22 billion should be recovered from the IPPs since the tariff was awarded under a cost-plus regime where an IPP is only entitled to a regulatory return and no justification has been identified in the tariff documentation allowing the IPPs to receive an excess payment on account of fuel, O&M and other factors. This should be adjusted against the outstanding dues of each IPP parked in CPPA's books;

ii. wind and solar projects - the sharing mechanism be reviewed and only the ROE component along with fixed O&M should be allowed on marginal generation beyond allowed net capacity factors in all existing upfront determinations as well as in all future determinations;

iii. co-generation projects - fixed cost and debt servicing as a component of payments made for generation above the 45% benchmark are essentially excess gains, which should be recovered, and corrective measures should be taken by NEPRA to address this issue in future;

iv. 2015 Power Policy projects - the return payment formula be corrected to reflect actual

construction time;

v. tariff of coal projects be adjusted;

vi. IRR oversight issue - payment made on this account should be recovered and this error may be rectified in all future tariff determinations/payments;

vii. debt repayment terms and inventory shortfall oversight - payment made on account of debt repayment and inventory shortfall should be recovered and this error may be rectified in all future tariff determinations/payments. CPPA, under the supervision of NEPRA, should ensure compliance of PPA provisions including the requirement of minimum fuel inventory for which cost of working capital has been allowed to the IPPs and any non-compliance should be adjusted against the tariffs;

viii. duplication of currency depreciation in ROE - the excess amount should be recovered and for future recommended a switch from US Dollar to Rupee based returns;

ix. excess profitability - claw back of payments and for future, claw back mechanisms to be expressly introduced whereby extra profit made by an IPP on account of improved efficiency is shared with the consumers in a certain predetermined ratio. Such claw back mechanism will be possible when existing tariffs are reduced to levels reflective of the true and prudent cost of operations of generating companies;

x. shift from take or pay contract provisions – identifies take of pay provisions in the PPAs between as a major factor contributing to the unsustainably high cost of electricity and suggested a move to take and pay PPAs; and

xi. possible retirement of expensive plants.

The report further recommended that NEPRA should commence proceedings either on its own motion or on an application of an interested party in respect of the tariffs. Further, the report suggests that as a matter of Pakistani law, the misrepresentation of material existing facts made by one person to another with knowledge of its falsity and for the purpose of inducing the other person to act, and upon which the other person relies with resulting injury or damage amounts to fraud. It noted that tariff determination being equivalent to a decree of a civil court under Section 40 of the NEPRA Act, therefore, the principles governing a decree procured through fraud would potentially be applicable in the case of tariff determination which can be proved to have been procured through fraud or misrepresentation. The report suggests that an order/decree may also be held voidable at the option of the party adversely affected by it, after it has been established by the relevant authority to be fraudulent. This entails both civil and criminal implications for the party which has acted fraudulently and may also lead to termination of project agreements.

4.3. Circular debt

The report states that the problem was triggered by a sharp rise in the cost of generation fuelled by:

i. a surge in international oil prices;

ii. an increased share of furnace oil or RFO in electricity generation; and

iii. Rupee depreciation.

According to the report, at the micro level, the flow of circular debt is attributable to high cost of generation, transmission and distribution inefficiencies and regulatory and fiscal inefficiencies. The high cost of electricity generation remains a major problem due to its compositional mix which has been changing with a shrinking EPP as a variable cost and growing fixed cost in terms of CPP. The report notes that in addition to the above issues attributable to IPPs, host of other factors have contributed to this high cost of electricity generation, such as:

i. snowballing of capacity payments to IPPs;

ii. net hydel profit;

iii. transmission constraints:

iv. minimum plant factor provision for RLNG based plants;

v. gas price anomalies; and

vi. financing cost of circular debt.

The report suggested that substantial savings can be made which would help deal with Circular Debt in case the tariff structure is revised to a take and pay regime instead of the existing take or pay.

The report recommended that a detailed forensic audit may be conducted in order to establish the true set-up and operational costs of IPPs leading to a comprehensive settlement package comprising:

i. recovery of purportedly excess payments made so far to the IPPs;

ii. conversion to Rupee based revised tariffs;

iii. elimination of take or pay contracts;

iv. extension of repayment period of project debts along with reduction in interest rates thereon; and

v. reducing LPS rate with retrospective effect, etc.

The report recommended that the above savings relating to the past periods would yield reduction in the outstanding stock of circular debt. The report also notes that eliminating the outstanding stock of circular debt is critical to stopping its further build-up, which is currently paid by obtaining financing and incurring further debt to pay for the existing debt through PHPL.

4.4. Comments on the report

The comments herein are not intended as a critique of the committee's report and efforts but merely an independent analysis of the report and how it impacts the sector and what steps are actually needed of the stakeholders to resolve the key issues affecting the power sector. From a neutral standpoint, the report identifies certain key issues particularly in the context of governance issues in general, an appraisal of the incentives under current investment regime, further development of the market and approach on critical issues linked to the Circular Debt.

However, there are certain shortcomings in the report as well; most probably linked to the fact that the committee did not have a budget to engage appropriate consultants in the field. It is also interesting to note that none of the members of the committee disagreed with any aspect of the report and appears to have been issued unanimously. Interestingly, it also involved representatives of the ISI and the FIA, though no representative of NAB was a member of the committee nor any member represented the IPPs or the IPPA. Given the environment in which the committee was set up and the NAB investigations that had commenced around IPPs it is understandable why the sponsors are sceptical of the committee and the report and the way the media has presented the report. Naturally, from a legal perspective one can understand if the sponsors of IPPs feel that they have been condemned unheard. Alongside, these projects and their lenders have been exposed to reputational risks. On the face of it, the report appears to be an attempt similar to the 1997-98 era approach that the then government had taken against IPPs. Given the current environment and political pressure on the government to address the electricity crises and manage the sovereign debt together with ongoing NAB investigations in the affairs of IPPs, it is not surprising that IPPs have been wary of the matter. The committee's report has definitely set the foundation for future accountability inquisitions and have certainly tainted the power sector as corrupt. Many IPPs may find the approach taken by the GOP as somewhat coercive as the GOP aims to renegotiate lower tariffs using the report as a basis and alleviate some of the challenges it is facing in the power sector. It is not surprising that the report also proposes to the GOP to renegotiate tariffs with IPPs and other key provisions of the PPAs. Some of the IPPs established under various power policies however did enter into memoranda of understanding with the Committee for Negotiations with Independent Private Power Products established by the GOP aimed at reducing the tariff. To the extent that there is tangible evidence that an IPP misrepresented under its PPAs and their tariff submissions or otherwise breached any contractual, legal or statutory provision, the government entities should enforce what they would consider as their strict legal rights.

It is important for the GOP to understand where and what went wrong that led to the current power sector situation and also to learn from its past experience. This will help set things straight for such a vitally important sector to the economy and the public. Whether the report should be a basis to compel the IPPs to change their tariffs ought to be considered carefully by the GOP as that potentially has other far reaching impacts in the short-to-long run as it involves complex legal issues particularly as the sector has substantial foreign investment.

Profitability of IPPs

The report appears to make a general remark that all IPPs made enormous profits. This comment is made in respect of IPPs under 1994, 2002 and 2015 power policies.

The report does not set out any basis or benchmark on which this determination of “enormous” profit is made. The report further states that large chunks of the profits were withdrawn from the companies in the form of dividends thereby insinuating an act of malfeasance or misfeasance of some sort or that there was some other restriction on them to distribute that money to their shareholders. It should be noted that some of the IPPs in question are not privately held but public limited companies traded on the stock exchange and the net effect of those distributions has been to the public shareholders. Even otherwise and from a purely legal standpoint, the provisions of the Companies Ordinance, 1984 and the present Companies Act, 2017 commercial companies are permitted to distribute profits of their business as dividends between the shareholders in the manner approved by the corporate governance structure. Also, there is no regulatory restriction on IPPs to distribute their net profits as dividends to their shareholders. The report states that dividends of IPPs were as high as up to 22 times the initial equity injection, which insinuates that there must have been some wrongdoing. This statement ignores the principles of gearing in project finance structures that are used globally in such transactions. The report ignores that large scale and capital-intensive PPP modelled infrastructure projects are developed on project finance models rather than usual corporate finance models. The NEPRA tariff model assumes a leveraged project, as is typical in such transactions. In fact, the power policies have considered this very nature of project development by prescribing that financing of the projects will be in the form of equity and debt to be arranged by the sponsors. For example, the 2015 Power Policy prescribes both a minimum and maximum equity of 20% and 30% respectively. It provides that if equity is more than 30% of the capital cost, equity in excess of 30% will be treated as debt to provide a more consistent approach to calculation of risk on equity and beta equity for IPPs. The National Electric Power Regulatory Authority (Benchmarks for Tariff Determination) Guidelines, 2018 prescribes the same limits for capital structure though it states that all capital structures for the purposes of tariff will be approved on a debt-equity ratio of 80:20 unless there is a formal requirement by a project lender for a different capital structure. This is also relevant to the tariff determination formula. Given the regulatory and policy constraints on the maximum initial equity permitted for an IPPs, a blanket statement to the effect that dividends of some IPPs were as high as 22 times the initial equity seems out of place. This ignores that over the course of project term the debt portion is reduced, and the equity portion increases. This means that over time there are more distributable funds for the shareholders subject to restrictions on distribution in the financing arrangement. While most IPPs are financed on long term debt or 10 or more years there is no restriction on SPVs to prepay their debt for business efficiency. Naturally, this permits the shareholders to take advantage of the freed-up income of the business and receive higher dividends. In any business, not just IPPs, once the business has recovered its costs and debt is paid off, the dividends increase substantially.

The report does not state how it arrived at the conclusion that six IPPs have reported an average annual return of more than 60% and four IPPs have earned an annual return of around 40%. and what the committee considered to be average annual return. While making all the above statements, the report does not comment on how the devaluation of the Rupee against the Dollar impacted the cash flows keeping in view that the rupee has lost substantial its value from 1994 till date.

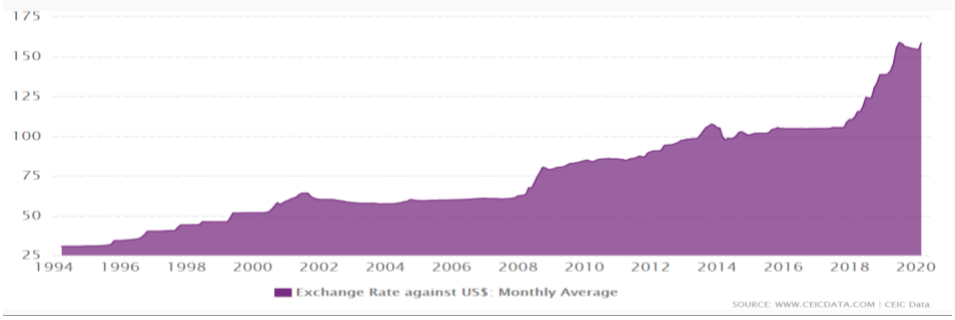

Figure Source: https://www.ceicdata.com/en/indicator/pakistan/exchange-rate-against-usd

Investment Payback Period and IRR

In respect of the 2002 Power Policy projects, this report appears to make stereotype comments similar in respect of the 1994 projects. The report does make an additional comment that the investment payback has been extremely short without providing more details on the basis of calculation of the investment payback period and whether it was the initial equity or the entire project cost that was recovered within that period.

The Guidelines for Determination for Independent Power Producers provides an IRR of 15% with US Dollar indexation in determination of tariffs. The tariff is determined by NEPRA by using determined models and calculation formulas. The allowance of 15% IRR by NERPA is a decision determined on the basis of taking into account the risk-free rate determined under the 10 years of Pakistan Investment Bank and addition of a risk premium. It is not clear whether the report intends to suggest that the IRR of 15% is on the high side.

While the tariffs are indexed to the US Dollars, though payable in Rupee, the report does not comment how volatility and erosion of the Rupee's value against the Dollar over the past several years is catered in determining the figures arrived at in the report. The Rupee is free floating against the Dollar. Operating in an environment in which floating rates are used, as in most non-oil driven economies and with particularly impaired credit score such as Pakistan, there are significant risks when making decisions on investments, operations, divestments or other factors with implications on capital or returns. The key risk is local currency volatility; in an attempt to make Pakistan more attractive to foreign investors in general the GOP assumed the currency volatility risk in the power sector tariffs as a matter of policy. Being unhedged in such a volatile environment can be extremely risky. Floating rates bring other risks that need to be considered. Hedging in floating rate markets is a more complex decision largely because the increased uncertainty makes it more costly.[52]

Also, there is no reference to benchmark rates and whether the GOP and its state utilities took any steps to hedge the foreign exchange risk in respect of the IPPs tariffs. It is worth considering that despite extreme volatility in the Rupee and Dollar exchange rates, over the past twenty plus years no government was either advised or considered the possibility of hedging the currency risk on the dollar indexed tariff. Ideally, the report should have calculated figures in US Dollars on account of the tariff being US Dollar indexed and then commented on their impact. The approach

[52] Euromoney. 2020. MENA And Pakistan: Have A Cross-Border Business? Time To Consider Currency Hedging. [online] Available at: <https://www.euromoney.com/article/b1jf8j4vqwybk3/mena-and-pakistan-have-a-cross-border-business-time-to-consider-currency-hedging?copyrightInfo=true&copyrightInfo=true> [Accessed 24 July 2020].

of commenting on figures in purely Rupee terms where the tariff is based on a US Dollar indexation substantially impairs the credibility and outcome of the review of the committee.

Misrepresentation and misreporting

The report suggests that this is attributable to savings on account of fuel costs as the plants were more efficient than reported for the purposes of tariff calculation and savings on O&M costs. Under the regulatory framework either tariff is offered by the government on a predetermined upfront basis or the relevant sponsors or IPP would apply for determination of its tariff. In determination of the tariff, under the 2002 Power Policy EPP for thermal projects comprised of fuel component based on fuel price and variable operation & maintenance charges as provided by the sponsors or IPP unless it was through competitive bidding. Tariffs are determined by NEPRA under the mandate granted to NEPRA under the NEPRA Act and specifically in accordance with the National Electric Power Regulatory Authority (Tariff Standards and Procedure) Rules, 1998. These rules also prescribe the standards and the test to be applied by NEPRA in determining tariffs under Section 17 of the rules.

Section 17 (iv) of the rules provides that:

“tariffs should include a mechanism to allow licensees a benefit from, and penalties for failure to achieve, the efficiencies in the cost of providing the service and the quality of service”.

The sponsors or the IPP is required to substantiate the claimed tariff by means of evidence. To the extent that an IPP intentionally misled NEPRA on the costs of its O&M operations to that extent NEPRA may be justified in re-determining the tariff of that IPP along with taking regulatory action prescribed by law. However, the answer may not be that straightforward. The situation arises where an IPP optimizes its operations so as to reduce the impact of its O&M costs. It would then have to be considered whether the optimization generates more working capital for the IPP or whether that has an overall cost saving effect for the life of the project. In any case, this hints towards poor governance and a deficit in regulatory oversight by NEPRA. In part, the idea for having adversarial manner staged tariff hearings where determinations are made on the basis of standards and the legal tests is for NEPRA to independently review and stress test the information presented before it and to allow NEPRA to come to an independent and judicious determination.

Furthermore, the report states that there is duplication in currency depreciation in ROE, NEPRA allowing a ROE of 15% in Rupee in its tariff. Without addressing whether a 15% ROE amounts to duplication in currency depreciation and distinction between IRR and ROE, the formula for determining the tariff is set by NEPRA in accordance with the policy of the GOP. To the extent that a particular policy or tariff determination formula was set incorrectly again is a governance issue. From an independent standpoint, the IPPs accepted the formula applied by NEPRA in accordance with the GOP policy and this formula was then applied consistently across the board to all IPPs that were established under that policy. From a legal perspective there is a fair probability that the GOP and state entities would be estopped from claiming this position.

Mismatch of tariff assumptions and payments timelines

Irrespective whether the mismatch has a material impact on the tariff, this again points towards shortcomings in governance and lack of regulatory oversight. Again, the IPPs accepted the formula applied by NEPRA. To the extent this formula was then applied consistently across the

board to all IPPs under the policy in question there is a fair probability that the GOP and state entities would be estopped from claiming this position.

Inventories shortfall

To the extent RFO based plants failed to maintain required fuel inventories amounts to shortcomings in governance, poor contract management and lack of regulatory oversight. The question which then arises will be to consider the effect of this under the relevant PPA and from a regulatory perspective.

Coal and RLNG plants

Irrespective whether the mismatch has a material impact on the tariff, this again points towards shortcomings in governance and lack of regulatory oversight. Again, the IPPs accepted the formula applied by NEPRA. To the extent this formula was then applied consistently across the board to all IPPs under the policy in question there is a fair probability that the GOP and state entities would be estopped from claiming this position. Also, if any action that attempts to exclude public sector IPPs until only near privatisation would most likely give rise to a claim of discrimination by private sector IPPs.

Above benchmark performance in wind and solar

According to the report in case of wind and solar regimes, the power producer ought to have recovered the entire cost of debt interest, O&M, insurance and ROE provided they operate the plant at the minimum benchmark. Energy generated in excess of the minimum benchmark leads to additional tariff payments in a predetermined ratio and duplication in payment of the debt and interest components as they are already accounted for at the net annual capacity factor. Therefore, if the IPP operates in case of excess generation, it will be able to recover debt and interest over and above the amount that is actually payable to the lenders.

It appears that the report does not adequately take into account the unavailability of reliable feedstock for wind and solar projects. If a project's actual net capacity factor falls short of the required benchmark the project investors earn less than the government-allowed returns.[53] Also, the report fails to appreciate that the predetermined ratios for over generation have been set in place to allow any benefit from excess generation, i.e. over the minimum benchmark is shared with the consumer through the power purchaser. It would be a policy and governance issue whether NEPRA and GOP intend to establish a separate formula for excess generation.

Circular Debt and recommendations of the report

It is important for the GOP to address issues affecting its power sector and the burgeoning Circular Debt. The report identifies various issues affecting the circular debt together with certain technical aspects such as transmission constraints and inefficiencies of the network, plant factor issues and regulatory and fiscal pitfalls. The report also identifies certain constitutional issues relating to net hydel profit and gas price anomalies. This document does not intend to delve into technical issues and the constitutional issues involved in the built up of the Circular Debt.

[53] *Green Finance in Pakistan - Asian Development Bank*; ADBI Working Paper Series October 2018 (Sadia Malik et al)

The report suggested that substantial savings can be made which would help deal with Circular Debt in case the tariff structure is revised to a take and pay regime instead of the existing take or pay. The report recommended that a detailed forensic audit may be conducted in order to establish the true set-up and operational costs of IPPs leading to a comprehensive settlement package comprising:

i. recovery of purportedly excess payments made so far to the IPPs;

ii. conversion to Rupee based revised tariffs;

iii. elimination of take or pay contracts;

iv. extension of repayment period of project debts along with reduction in interest rates thereon; and

v. reducing LPS rate with retrospective effect, etc.

The report recommended that the above savings relating to the past periods would yield reduction in the outstanding stock of circular debt.

Another important factor that has led to the large Circular Debt are poor collections and performance of DISCOs, together with line losses.

Performance of DISCOs

The DISCOs struggle to collect revenues and meet regulatory targets for transmission and distribution losses, default on their payments to the power supply chain, and the sector has to be periodically bailed out by the government once losses accumulate to intolerable levels.[54]

Circular Debt is created in the power sector when end-customers (both public and private) do not pay their electricity bills to DISCOs, and the GOP is not able to fully furnish its commitment to fund subsidies. As a result, the DISCOs are unable to pay their purchase cost to the CPPA, who is in return unable to fill its obligation to power generation companies. And the power generation companies in effect fail to pay fuel suppliers. The fuel suppliers in turn default on their payments to refineries, gas producers, and international fuel suppliers.

The term ‘circular debt’ is based on the fact that two gas utilities, OGDCL and PSO are also in government ownership.[55]

Closely linked to this issue of Circular Debt and something that report does not discuss is the delay in payments to IPPs by the CPPA and the effect of that. Delay in payments by the CPPA creates paucity of short-term liquidity because of the huge amounts of receivables from the power purchaser.

[54] Bacon, R., 2019. *Learning From Power Sector Reform: The Case Of Pakistan*. [online] World Bank Group, p.9. Available at: <http://documents.worldbank.org/curated/en/403611557151850485/Learning-from-Power-Sector-Reform-The-Case-of-Pakistan> [Accessed 8 May 2020]
[55] C. Trimble, N. Yoshida, and M. Saqib, 2011

These receivables lead to the shortage of working capital resulting in hindrances to purchase fuel to keep the units running.[56]

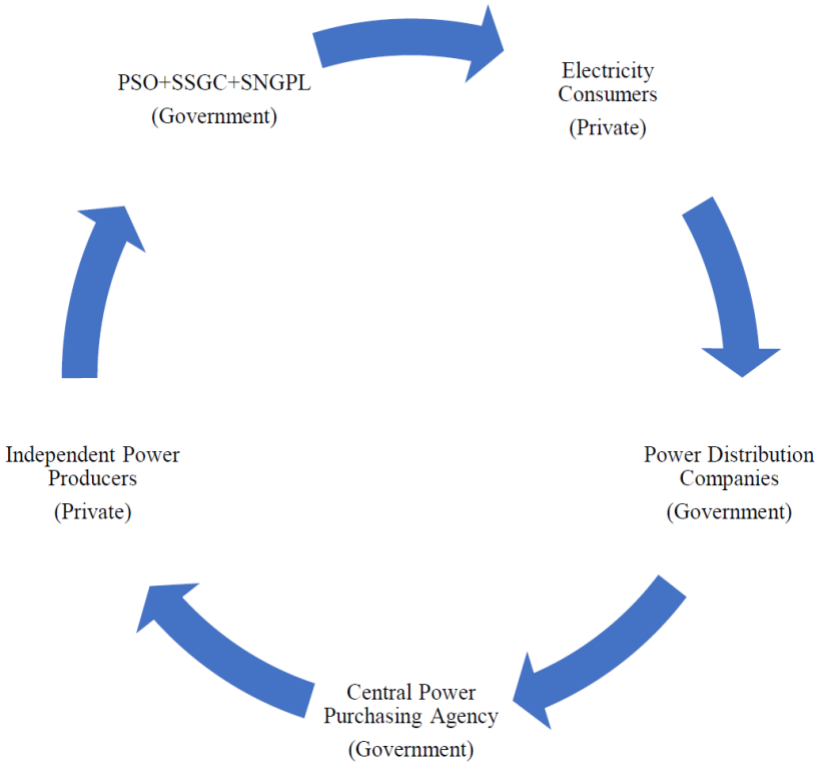

Figure: Cash flow cycle in the power sector and development of Circular Debt.
Figure source: Circular Debt in Power Sector of Pakistan: Impact and Remedial Measures (Amjad Hafeez)

One of the largest defaulters of DISCOs are federal and provincial governments and their entities. Governmental departments and entities are known to have a culture of poor payment. This culture of consistently failing to pay current liabilities on time coupled with corruption, in part, is responsible for Pakistan's poor credit rating that in effect creates a poor investment environment. Any effort by the GOP to address the current overly incentivizing investment environment would be futile if the GOP fails to reduce the sovereign risk premium and improve the overall credit rating of the country. Government departments and companies should be encouraged to clear their current liabilities on time and to obtain independent credit ratings. As mentioned above, only recently did WAPDA for the first time secured an international credit rating by Fitch and S&P.

Snowballing of capacity payments to IPPs

The report considers that snowballing capacity payments to IPPs is a critical issue in respect of the Circular Debt. The report simply suggests that the tariff structure and risk profile of the PPAs should be changed. Whether the government may simply change the risk profile and PPA structures does not have a straight-forward answer. It is a thorny question and would require a level of compromise by not only the IPPs but also their lenders. Merely enforcing a change of this nature would render the government vulnerable to potential disputes with IPPs and their lenders and in case of foreign

[56] HAYEE, A., 2020. Ipps: Investor'S Perspective – Business Recorder. [online] Fp.brecorder.com. Available at: <https://fp.brecorder.com/2019/09/20190904515270/> [Accessed 24 July 2020].

direct investment possibly expropriation claims. The government should carefully consider this approach before taking any step.

Also, an important point that the report misses to make is the split of the capacity payments between the private and public sector producers. According to certain projections for 2021 private sector IPPs that are the subject of the committee's report only account for 13% of all capacity payments.

PROJECTED CAPACITY PAYMENTS*

	Capacity Tariff (Usć/kWh)	Capacity (MW)			Capacity Payments (PKR Bn)		
		2021	2023	2025	2021	2023	2025
Governemnt Owned							
WAPDA Hydro - Old	1.18	6,902	6,902	6,902	111	111	111
WAPDA Hydro - New	5.33	2,379	2,379	3,789	172	172	274
Nuclear - Old	3.50	615	615	615	29	29	29
Nuclear - New	6.50	654	2,854	2,854	58	252	252
GENCOs	0.94	4,307	4,967	5,627	55	73	91
RLNG	1.64	4,626	4,626	4,626	103	103	103
Total Government Owed		**19,483**	**22,343**	**24,413**	**528**	**740**	**860**
CPEC							
Thar	3.89	601	3,571	3,571	32	188	188
Imported Coal	3.15	3,735	4,035	4,035	160	173	173
Total CPEC		**4,336**	**7,606**	**7,606**	**191**	**361**	**361**
Thermal IPPs (1994) (incl. Hubco & KAPCO)	**1.37**	**5,178**	**3,842**	**3,842**	**96**	**70**	**70**
Thermal IPPs (2002)	**1.03**	**2,754**	**2,754**	**2,754**	**38**	**38**	**38**
Renewables (incl. Bagasse)	**5.38**	**2,096**	**3,954**	**3,954**	**153**	**285**	**285**
Hydel IPPs	**5.33**	**530**	**1,326**	**2,294**	**38**	**96**	**166**
TOTAL		**34,377**	**41,825**	**44,863**	**1,045**	**1,590**	**1,781**
Total Capacity Payments of 1994 & 2002 Policy Plants [PKR Bn (% of Total)]					**134 (13%)**	**109 (7%)**	**109 (6%)**

*Capacity payments have been estimated

Financing costs of Circular Debt

Pakistan approaches its Circular Debt issue in a unique way. While part of the Circular Debt stock are receivables from customers including federal and provincial governments, the annual financial cost in respect the outstanding Circular Debt stock of PKR 1,800 billion as of Dec-2019 works out to nearly PKR 270 billion. To retire the Circular Debt stock, the GOP established PHPL as a wholly owned company. The object of PHPL is to inject liquidity in the power sector. PHPL uses government guarantees to incur additional debt from commercial banks, typically 5-7 years borrowing with the proceeds used to reduce the CPPA liabilities to the IPPs. Servicing of PHPL loans is partly made through surcharge in the tariff, which typically covers around half of the

servicing costs. The remaining amount is paid by diverting power sector revenues. [57] In short, with poor collection and government incurring additional debt on commercial terms to pay off existing debt the government has found itself in a debt trap and hence the befitting name of Circular Debt.

Any tangible solution intended to address the Circular Debt should focus on eliminating the issues responsible for creating this situation. The GOP's current approach of retirement of Circular Debt by incurring additional debt is most likely to have long term consequences on the financial strength of the sector as a whole and any future power policy that it may intend to develop.

Also, it is not clear whether the CPPA, DISCOs or the GOP have put in place any currency hedge arrangements to secure against the risk and volatility of the Rupee to the US Dollar.

Conversion to Rupee based revised tariffs

Another important point within the context of the financing cost of the Circular Debt is that the report does not state the effect of the devaluation of the Rupee that has caused the Circular Debt to raise. This will require sound financial policies by the GOP to ensure that the Rupee does not slide further.

There is a suggestion in the report that the tariff structure should move away from a Dollar indexation to a Rupee based tariff. While the GOP may be open to do that in terms of a future policy it may not be that straightforward for projects already established under policies providing a Dollar indexed tariff unless there is a level of concession by the IPPs and their lenders. In a typical project financing almost any decision in respect of a key project document or matter requires lenders' consent. Most of these projects have been financed on a syndicated basis and would require the consent of more than just one of the lenders.

In respect of a future power policy whether the Rupee based tariff is acceptable to investors, in a sector that has attracted the highest level of foreign direct investment, is something that time would tell.

There is also a perception that the sector policies have allowed return in Dollars irrespective of whether the equity being invested was in a local or foreign currency. No person would deny that power plants are capital intensive projects. It needs to be put in context why the Dollar indexation was used and whether the Rupee based tariff would work. Most long lead and critical plant and equipment such as turbines are not manufactured locally and have to be imported. Also, long term service agreements must be entered into with these foreign suppliers that would be valued in foreign currency, most likely Dollars. Also, in most cases the EPC cost of a project is in Dollars as many times international EPC contractors are involved though Pakistani EPC contractors through their involvement as subcontractors on some of the legacy projects have now developed good experience in carrying out projects of this nature. Then there is the involvement of international lenders and export credit agencies, who would lend in Dollar or other foreign currency to the SPV and would have to be repaid in that foreign currency; financial models for the financing and the gearing is carried out in Dollars and for the purposes of capital structure though money may be received in Rupees it would be calculated against a benchmark Dollar value. Project companies

[57] IMF Country Reports 19/380 Pakistan: *First Review Under the Extended Arrangement Under the Extended Fund Facility and Request for Modification of Performance Criteria Press Release;* Staff Report; and Statement by the Executive Director for Pakistan (International Monetary Fund).

would have to carry out currency risk hedges as being unhedged against the Rupee's floating rate entails substantial risk. Hedging in floating rate markets is a more complex decision largely because the increased uncertainty makes it more costly.[58] Given the country's currency devaluation risk and credit rating the risk premium would most likely be much higher than the present risk premium of about 4% against a Dollar indexation.

IPPs and their lenders would incur substantial costs and would have to engage consultants to reassess the risk profile and changes to the financing model. Whether the new risk and financing model is acceptable would have to be considered. To an extent they may even attempt to pass the cost of that to the GOP, which may not be acceptable to the government. Any future approach by the GOP in this regard requires a careful consideration.

Elimination of take or pay contracts and changes to LPS

The report proposes to replace the current regime of take or pay PPAs with a take and pay regime. Again, while the GOP may be open to do that in terms of a future policy it may not be that straightforward for PPAs already in place. The report also proposes to reduce the LPS rate with retrospective effect. This would be a significant deviation from the existing risk profile of the PPA and the policies under which the projects were established. This will require concessions by the IPPs and their lenders. As mentioned above, any decision in respect of key project documents requires lenders' consent. Most of these projects have been financed on a syndicated basis and would require the consent of more than just one of the lenders.

IPPs and their lenders would incur substantial costs and would have to engage consultants to reassess the risk profile and changes to the financing model. Whether the new risk and financing model is acceptable would have to be considered. To an extent they may even attempt to pass the cost of that to the GOP, which may not be acceptable to the government. Any future approach by the GOP in this regard requires a careful consideration.

Memoranda of Understanding with IPPs

On 14 August 2020, Prime Minister Imran Khan took to twitter congratulating the nation and declaring that his government is fixing the damaging structure inherited in the power sector and that after long negotiations with IPPs, the government had signed new agreements with IPPs. The net effect, the GOP claims, is that the tariff will be reduced and other onerous provisions will be removed. This will resultantly alleviate the challenges being faced by the power sector.

In effect, rather than amending the PPAs and the IA, what had happened was that several IPPs established under various power policies entered into memoranda of understanding with the Committee for Negotiations with Independent Private Power Products established by the GOP. What is important to consider is what these memoranda of understanding entail and their legal effect.

First, these agreements take the shape of a memorandum of understanding. Essentially, the agreement contained there is subject to various caveats and does create any binding legal

[58] Euromoney. 2020. MENA And Pakistan: Have A Cross-Border Business? Time To Consider Currency Hedging. [online] Available at: <https://www.euromoney.com/article/b1jf8j4vqwybk3/mena-and-pakistan-have-a-cross-border-business-time-to-consider-currency-hedging?copyrightInfo=true&copyrightInfo=true> [Accessed 24 July 2020].

obligations for the IPPs or the GOP. The template memorandum of understanding document prepared in this regard states that the terms set out therein are subject to approval of NEPRA, the Federal Cabinet and the IPP's board of directors and other necessary corporate approval. It further states that the terms of the memorandum do not amount to an amendment or alteration of the PPA or IA entered into by the respective IPP. It further states that after obtaining all required approvals such as NEPRA, Federal Cabinet and corporate approvals of the IPPs, the parties will agree and document details and procedures of these understanding following which the same will be submitted to NEPRA and CPPA and will be followed by legal documentation to reflect the amendments to the relevant agreements. It further states that the MOU is valid for six months and will stand terminated upon signing of the relevant agreements.

Second, the memorandum proposes the following substantive changes:

i. for oil fired:

   a. projects the future savings in fuel shall be shared on a sliding scale starting from 70:30 in favour of the power purchaser for the first 0.5% efficiency improvement above the NEPRA determined benchmark efficiency followed by 50:50 for the next 0.5% and 40:60 for any efficiency above that;

   b. the power purchaser will not share any efficiency losses;

   c. any future savings in O&M shall be shared 50:50 after accounting for any reserves created, or to be created, for major overhauling, to be reviewed by power purchaser or NEPRA as mutually agreed. If the reserve for major overhaul remains unutilized, it shall be shared in the ratio of 50:50 between the power purchaser and the IPP;

   d. in case the major overhaul expense exceeds the reserves available at the time of major overhaul, the difference shall be carried over to the future years;

   e. the power purchaser will not share in O&M and major overhaul losses.

ii. for gas fired projects:

   a. fuel and O&M shall be taken as one consolidated line item and any future net savings shall be shared 60:40 in favour of the power purchaser and IPP respectively, after accounting for any reserves created, or to be created for major overhaul if the reserve for major overhaul remains unutilized, it shall be shared in the ratio of 60:40 between the power purchaser and the IPP;

   b. In case the major overhaul expense exceeds the reserves available at the time of major overhaul, the difference shall be carried over to the future years;

   c. power purchaser shall not share fuel, O&M and major overhaul losses.

iii. to ensure that the actual efficiency is matching the efficiency reported in the financial statements, the power purchaser shall appoint a reputable international independent consultant to perform a one-time detailed heat rate test for all IPPs, for which the GOP and IPPs' representatives shall agree on the TORs, standards and corrections required;

iv. for all future invoices, Delayed Payment Rate ("**DPR**") under the PPA shall be reduced to KIBOR + 2% for the first 60 days after the due date, and thereafter at KIBOR + 4.5% as per the PPA;

v. for IPPs where Gas Supply Agreement is signed with an entity with significant ownership of GoP, same DPR rates shall be payable by the IPP to gas supplier. Further, for all invoices, the power purchaser shall ensure that payments follow the PPA mandated waterfall or first in first out (FIFO) payment principle;

vi. for foreign equity investment presently registered with SBP, the ROE including Return on Equity During Construction ("**RoEDC**") shall be 12% per annum, and for local investors, the RoE including RoEDC shall be changed to 17% per annum in PKR on NEPRA approved equity at CoD calculated at USD/PKR exchange rate of PKR 148/USD, with no future USD indexation. The miscalculation of IRR, on account of periodicity of payments, has been addressed through reduction in return component;

vii. the GOP shall actively support the creation of competitive power markets. All projects shall convert their contracts to take and pay basis, without exclusivity, when Competitive Trading Arrangement is implemented and becomes fully operational, as per the terms defined in the license of each IPP. In the interim period, CPPA shall work towards providing access to the bilateral market at the earliest;

viii. to assess if an IPP has made any excess profits, the reconciled numbers between the Committee and the IPPs engaged in this exercise, shall be submitted to NEPRA. As a legal body vested with the authority for tariffs, NEPRA shall hear and decide this matter in accordance with the 2002 Power policy, tariff determination and PPA, and provide for a mechanism for recoveries, where applicable; and

ix. the power purchaser and GOP shall devise a mechanism for repayment of the outstanding receivables with agreement on payment of receivables within an agreed time period which shall be reflected in the final agreement to be signed. The power purchaser shall ensure adherence to its contractual obligations.

Conclusion

While the recommendations of the report may seem popular and even necessary from the GOP's perspective to reduce financial stress on the already stretched public account, the government should consider the recommendations, potential approach and future course of action very carefully. Pakistan is already facing a US Dollar 5.9 billion award given by ICSID in the Reko Diq case and remained unsuccessful in defending itself in Karkey Rental Power on the merits of the

dispute which led to an award of about $800-900 million. In each case, the project was scrapped following bribery and corruption allegations that were not substantiated during the course of the proceedings.

By re-examining these PPAs, particularly in a unilateral manner, the government will harm investor confidence and send an extremely negative signal to prospective investors. The GOP should learn from some of its historic and recent experiences, as in the case of rental power projects, that led to an international investment arbitration and a dispute award against Pakistan. It is understandable that the GOP intends to address the issues in the sector and the situation it is facing though the means of doing so would have to be carefully assessed and a plan ought to be drawn that balances the interests of all stakeholders. Governments can also do a great deal to facilitate private financing for projects by providing a legal and judicial framework that is conducive to private contractual activity. The entering into memoranda of understanding appears to be a positive approach though their net effect is yet to be seen keeping in view these memoranda are subject to approvals by NEPRA, GOP and the IPPs. Any approval of the IPPs would be subject, of course, to the approval of their lenders. To what extent international and local lenders have been involved in the entire process is something yet to be seen.

All in all, the regulatory framework should be clear and consistent, and policy should aim to keep the macroeconomic environment stable. Instability can wreak serious havoc, as it did in Pakistan in 1998, when the then government sought to cancel a number of IPPs, alleging corruption, against a background of macroeconomic uncertainty that had eroded the financial ability of the public power utilities to fulfil their commitments. [59] There are a number of ways to compensate for that. A weak domestic legal and regulatory environment, will inevitably entail additional transaction and financing costs for projects and still leave a project vulnerable to unexpected adverse developments.[60]

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[59] *Project Finance in Developing Countries Number 7 Lessons of Experience* (IFC)
[60] *Project Finance in Developing Countries Number 7 Lessons of Experience* (IFC)

5. REGIONAL COUNTRIES' EXPERIENCE WITH IPP

5.1. India

History

India and Pakistan shared a common electricity framework pre-partition. Following a long development of the sector and important milestones, such as the progressive interconnection of the Regional Grids. India issued in 2003 the Electricity Act, which came into force on 15 June 2003. The Act replaces the Electricity Act 1910, the Electricity Supply Act 1948 and the Electricity Regulatory Commission Act 1998. The Act has been amended in 2003 and 2007. The Act describes its own objectives as follows:

"An Act to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry, promoting competition therein, protecting interest of consumers and supply of electricity to all areas, rationalization of electricity tariff, ensuring transparent policies regarding subsidies, promotion of efficient and environmentally benign policies, constitution of Central Electricity Authority, Regulatory Commissions and establishment of Appellate Tribunal and for matters connected therewith or incidental thereto."

In relation to the subject matter of this report, the consolidation of rules and regulations and the creation of a competitive licence-free energy production market under the oversight of a regulator are the most salient features of the Act.[61]

From a constitutional point of view, electricity is a "concurrent matter", i.e. both state government and central government are competent and involved in regulating and making decisions in relation to the sector.

Regulator

The Electricity Regulatory Commission Act, 1998 established the Central Electricity Regulation Commission ("**CERC**") to be responsible for setting the tariffs of centrally owned or controlled generation companies. In parallel, the same Act introduced a provision for the states to establish State Electricity Regulation Commissions ("**SERC**"). The CERC primarily manages the financial aspects of the sector, whilst the Central electricity Authority regulates the technical aspects.

CERC's primary objective is to support and promote a competitive and efficient power market by encouraging the adoption of sound policies and pursuing the removal of barriers to entry and other hurdles that may impede or delay projects.

CERC also adjudicates disputes involving generating companies or transmission licensees, a specific Appellate Tribunal was set up to hear appeals against the decisions of CERC and SERCs.

Market Structure

India started building regional grids in the 60's, these regional grids were interconnected over time

[61] Entry 38, List III of Schedule 7 of *the Constitution of India*

to create five regional grids to allow transmission of electricity surplus between states. Such regional grids were then progressively connected to establish a National Grid.

The market was completely reformed by the Electricity Act 2003, which led to unbundling and privatisation of both generation and distribution companies and towards a more open access to the market for investors. The Electricity Act devised a multi-buyer, multi-seller model effectively creating power trading. Power generation became a delicensed activity, allowing investors freedom in choosing any type of fuel (nuclear power projects being the only exception).

In 2015, India had reached a power surplus nation and in 2017 a net exporter of electricity. In the meantime, renewable energy plants for the first time surpassed traditional plants.

Cycle of an IPP

In generation (except nuclear power), transmission, distribution of electricity and power trading sectors, up to 100% foreign direct investment is allowed. Only in the event that the award to the foreign entity appears detrimental to public interest or national security, the bid may be rejected.

Although generation is a delicensed activity, construction, operation and maintenance of a plant require a number of permits and approvals with respect to environmental protection, labour laws, land acquisition etc. Plants are also subject to technical standards and numerous other requirements in all phases of the project.

The standard structure for power generation projects revolves around long term power supply agreements. For coal/gas and hydro projects, procurement can be either by:

i. competitive bidding; or

ii. negotiated route.

If competitive bidding is adopted, the tariff is established through the bidding process and then formalised by the relevant electricity regulator and incorporated in model agreements, including the PPA.

If, conversely, the negotiated route is preferred, the tariff is determined by the relevant electricity regulator after taking into consideration the circumstances of the specific project.

The tendency is to move away from the negotiated route and utilise the competitive bidding system instead for the procurement of electricity.

Up to 2013, competitive bidding was based on either of two modes of procurement, defined as Case 1 and Case 2. In Case 1, the producer was tasked with obtaining all project assets (including land) and approvals for construction, operation etc, whilst, in Case 2 procurements, these had to be managed by the distribution licensee.[62]

The standard documents were not entirely sufficient to address potential investors' concern in

[62] *Standard Bid Documents for Tariff Based Bidding Process for Procurement of Power on Long Term Basis by Setting up of Power Stations at Specified Location and/or Fuel.* Available at *http://www.cercind.gov.in/030206/case2.pdf*

respect of, among other things, fuel prices indexation and uncertainty re approvals and land allocation.

Revised standard bidding documents and guidelines were issued in 2013 to address such concerns and amendments were made in 2015. They provide for two project models:

i. Design-build-finance-own-operate (DBFOO); and

ii. Design-build-finance-operate-transfer (DBFOT).

The standard bidding documents provide for a more comprehensive regulation, pass-through of variable charges (including cost of fuel) to consumers, detailed construction, operation and maintenance standards.[63]

A separate set of bidding documents were produced for so-called ultra-mega power projects, for which the DBFOT appeared unable to attract investors. In this scenario, the government provides part of the land and the captive coal block on a long term lease.

Future Developments

The government is actively promoting renewable energies through an ad hoc incentives package to attract investors.

In addition, there is a need to make the entire electricity production sector a more attractive investment proposition for the private sector. Relatively low ROI in connection with many projects, reported delays in payments to generators by government owned distribution companies and lengthy contractual disputes are among the issues to be addressed. The draft New Tariff Policy 2020 should assist in allaying such concerns by rationalising tariffs and supporting open competition.

A proposed amendment to the Electricity Act (April 2020) would provide for the establishment of the Electricity Contract Enforcement Authority as the authority with exclusive jurisdiction to settle matters related to the performance of obligations under a contract for the sale, purchase, or transmission of electricity (disputes on tariffs are excluded)[64]. The draft national energy policy based on a 2017 report by NITI Aayog (the government's think tank) covers a time span until 2040. The focus is on renewable energy; increase of per capita energy consumption and reduced fossil fuel imports. The draft policy urges to prioritise efficiency, regulatory oversight, support to FDI, environmental concerns and human resource development in the sector.

Conclusion

The initial response in India to IPPs mirrored concerns which are expressed in Pakistan today. Despite the first power policy gaining approval at the highest level, many in the government remained strongly opposed to "extravagant concessions" offered to IPPs, and felt the power purchase agreements were outrageously lop-sided, with unjustifiable risks being borne by the

[63] Ministry of Power - *Model Bidding Documents* – November 2013
[64] The Electricity (Amendment) Bill, 2020 – Draft for Comments – Available at https://powermin.nic.in/sites/default/files/webform/notices/Draft_Electricity_Amendment_Bill_2020_for_comments.pdf

government. The broad consensus later expressed was that while the initial power policy was "flawed", it was the "most promising option" at that time. The role of World Bank in driving reform in the power sector also remained questionable.[65] However, with the delicensing of the power generation in 2003, India's generation has increased considerably to becoming a power surplus country in 2017. The role of private sector remains important, with private utilities being responsible for 46% of the total electricity produced in 2018.

Despite this, the Indian electricity sector faces considerable challenges with energy deficit, peak deficit, declining capacity utilisation, higher tariffs, delayed payment by DISCOs and scarcity of coal. In light of India's aim of rapid industrialisation and urbanisation which will increase the demand for power, the power sector may require serious reform.[66]

The Indian electricity sector faces a number of challenges, in ways similar to Pakistan such as. permits, improvement of the management and execution of projects and manpower training. Also, it faces similar challenges relating to a more efficient payment collection system and there exists a disbalance balance in the accounts of the distribution system.

5.2. Oman

History

In the 90's, with the rise in the country's need for electricity, the government of Oman began considering private participation and unbundling of the sector. In 1999, the government approved a far-reaching restructuring of the sector, aimed at improving the efficiency and reliability of the system. The key features included the unbundling of electricity generation, transmission, distribution and supply. The same strategy provided for the participation and investment of the private sector, including foreign companies, to move away from the traditional model of government funded generation plants.

The first project to be developed in cooperation with the private sector was the Manah power plant (1996).

In 2004, Oman issued the Law for the Regulation and Privatisation of the Electricity and Related Water Sector (Royal Decree 78/2004, as amended and hereinafter the "**Omani Sector Law**"), which comprehensively regulates the electricity (and desalination) sector. The Omani Sector Law applies, among other things, to IPPs, Independent Water Projects as well as Independent Water and Power Projects. Oman decided that independent projects in relation to the production of electricity and desalinated water were to be regulated in a similar fashion and this survives to date.

The Omani Sector Law introduced a system whereby all power generation plants are to be developed by the private sector. Details of ownership structure and contractual framework are set out in Section 4. The model has proven rather successful.

[65] Dubash, N. and Rajan, S., 2001. *The Politics Of Power Sector Reform In India*. [online] World Resources Institute. Available at: <http://pdf.wri.org/power_politics/india.pdf> [Accessed 5 September 2020].
[66] Mishra, P., 2019. *OVERVIEW OF THE POWER SECTOR*. [online] PRS Legislative Research. Available at: <https://www.prsindia.org/sites/default/files/parliament_or_policy_pdfs/Overview_of_the_Power_Sector_final_web.pdf> [Accessed 5 September 2020].

The Authority for Electricity Regulation, Oman

To ensure the efficiency and transparency of the market, the Omani Sector Law established the Authority for Electricity Regulation, Oman ("**AER**"). AER is an independent entity, not related to nor dependent from any government entity, whose mission is to protect the interests of the government, the investors and the consumers.

AER is responsible, among other things, for the licensing of sector companies and reviewing their compliance, for ensuring competition, for monitoring the market and for promoting and supporting the privatisation policy and the other sector policies from time to time.

The presence and activity of an authority with administrative and financial independence such as AER has played and continues to play an important role in encouraging private investment in the sector.

Market Structure

The electricity sector in Oman is not yet fully interconnected and comprises three separate systems:

i. the Main Interconnected System ("**MIS**") in the north of Oman;

ii. the system of the Rural Areas Electricity Company ("**RAEC**"); and

iii. the Dhofar Power System ("**DPS**").

The MIS is the largest of these systems and covers the governorates of Muscat and Buraimi, and most of the governorates of Al Batinah, Ad Dakhiliyah, Ash Sharqiyah and Ad Dhahirah. The MIS comprises thirteen power generation facilities, owned and operated by separate companies, the transmission grid, owned and operated by Oman Electricity Transmission Co, and three distribution networks, owned and operated by Muscat Electricity Distribution Co, Mazoon Electricity Co and Majan Electricity Co67. The three distribution network operators also act as "licensed electricity suppliers", supplying customers in their respective areas. The MIS is interconnected with the electricity system of Petroleum Development Oman and with the system of the Emirate of Abu Dhabi and other Member States of the GCC Interconnection Authority via the Abu Dhabi Interconnect.

The DPS supplies electricity in the southern areas of the country. Full integration of the Dhofar Power System (DPS) and the MIS is expected by 2023 and is aimed at improving efficiency, with the related financial benefits, and harnessing the renewable energy potential of such southern areas. The remaining areas are supplied by the RAEC.

Oman Power and Water Procurement Company ("**OPWP**") is responsible for securing the electricity production in the country and is the single buyer of electricity from all IPPs.

Its role is to aggregate the power requirements of licensed electricity suppliers and to economically

[67] OPWP "*7 Year Statement (2018-2024)*". Available at https://www.omanpwp.om/PDF/7%20Year%20Statement%20Issue%2012%202018-2024.pdf

procure the required power in bulk from generation/production facilities connected to the MIS. OPWP is required to ensure that sufficient power generation resources are available to meet demands. OPWP purchases power from multiple producers via power purchase agreements (PPAs).

With regards to pricing structure, the Omani Sector Law provides for the imposition of (a) permitted tariffs (b) cost reflective tariffs. All electricity supply tariffs are approved by the Council of Ministers. From January 2017, cost reflective tariffs apply to government, commercial and industrial users with yearly consumption exceeding 150 MWh.

Lifecycle of an IPP

OPWP has an Economic Purchase Obligation, meaning that it must procure new capacity in an economic way, usually through a competitive tender. The authority ensures that these competitions are conducted in a fair and transparent manner. New proposed IPPs once identified are promoted to local and international companies in the form of tenders floated by OPWP as and when the requirement arises. The process usually involves a pre-qualification phase.

The basic structure is explained as follows in standard OPWP Tender Documents.

i. The project company will be responsible for the design, finance, construction, testing, commissioning and operation of the Project under a BOO[68] framework.

ii. OPWP will purchase power from the project under a 15 year PPA commencing from the scheduled commercial operation date.

iii. MOG[69] will supply natural gas to the project under the NGSA.

iv. The project company will comply with the prevailing laws at all times during the construction and operation of the plant.[70]

The company or consortium to which the tender is awarded and the project company will be required to enter into a number of agreements, which include:

i. Project Founder(s) Agreement

ii. Power Purchase Agreement

iii. Usufruct Agreement

iv. Electrical Connection Agreement

v. Natural Gas Supply Agreement

Immediately after the award of the tender, the company or consortium is required to establish a

[68] *Build, Operate, Own*.
[69] Ministry of Oil and Gas.
[70] OPWP - *Outline Format - Request for Proposals for the development of an Independent Power Project.* Available at https://www.omanpwp.om/Docs/Outline%20example%20IPP%20RFP.pdf

project company in Oman to own and operate the IPP. The project company must be established as a closed joint stock company. The Commercial Companies Law (Royal Decree No. 18/2019) requires such companies to have a minimum of three shareholders and a paid up share capital of not less than RO 500,000 (US$ 1,300,000).

Article 15 of the Omani Sector Law grants non-Omani shareholders in companies carrying on regulated activities under the Omani Sector Law the right to own 100% of the share capital of the Project Company. The Foreign Capital Investment Law (Royal Decree 50/2019), which came into force in January 2020 effectively abolished the mandatory requirement of Omani shareholding in locally established companies in most business sectors but the decision to allow 100% foreign ownership at the time of issue of the Omani Sector Law, when having a certain share of Omani participation in each company was a general obligation which testifies the strong intention to attract foreign players in the market.

The project company is granted a usufruct by the government in respect of the land required for the project. The usufruct is by default for a term of 25 years and renewable and the Usufruct Agreement provides for the payment of an annual consideration by the Project Company.

The project company will be required to comply with the local Grid Code, which requires compliance with applicable Oman Electrical Standards.

Upon completion of the construction and commissioning phases, the IPP reaches commercial operation date and commences selling power to OPWP.

Most project agreements provide for the obligation to approve an IPO of the project company, whereby a percentage of the project companies' share capital (at least 35%) must be offered for public subscription around the fourth anniversary of the commercial registration date of the project company, coupled with the conversion of the company from a closed to a public joint stock company and the admission of its shares to listing on the Muscat Securities Market. Listings of IPPs (and IWPs) have proven very successful, and often have been manifold oversubscribed. Investors are mainly attracted by the long term governmental commitment to buy via the PPAs and by the generous dividend policies usually adopted by the project companies.

Future Developments

Power 2022, a procurement initiative by OPWP, revolves around a two-stage competitive tender for long-term PPAs that commence in 2022. Stage one is a qualification process for four existing plants, whereby such plants can commit to offer capacity at or below OPWP’s benchmark price for a contract term of 4-15 years. Depending on OPWP’s evaluation of the stage one offers, additional bidders may (or may not) be invited to tender in stage two by bidding for new PPAs, which will be offered in any case to the lowest qualifying bids. Bidders that are not awarded PPAs will have the option to participate in the new Wholesale Spot Market, scheduled to launch in 2020 and in the following procurement round Power 2024.

Renewable Energy (RE) Development. OPWP started issuing tenders in respect of large solar PV projects in 2017. The purpose of this series of RE IPP tenders is to assist in achieving the 10% of electricity from renewable sources by 2025. The opportunities include solar, wind and waste-to-energy. The contractual framework and project structure reflect the established IPP structure.

Spot Market. OPWP is developing a wholesale electricity Spot Market for the MIS in order to improve the efficiency of the sector and offer opportunities to participate in the market to alternative generators, which are not parties to PPAs or whose PPAs with OPWP have expired following completion of the original term. OPWP, under the supervision of AER is developing the applicable rules and the Spot market is expected to be launched by the end of 2020[71].

Conclusion

As of today, the private sector owns 100% of the generation capacity in the MIS and plans are being developed to expand the privatisation of transmission and distribution companies. Oman therefore is one of the most advanced GCC countries when considering the sector privatisation. The results of these policies appear to have been satisfactory and the new developments indicate a will to re-balance the allocation of risks between government and project companies and further open the market to competition.

The constant participation of AER, an independent and proactive regulator entrusted with wide ranging powers, continues to contribute towards improving the performance of the sector and maintain confidence of investors and stakeholders. As such Oman represents a successful experience with IPPs.

5.3. Saudi Arabia

History

The organisation of the Saudi electricity market began in the early 60's with the establishment of the Department of Electricity Affairs as a department of the Ministry of Commerce. The main responsibilities of the department included the regulation of the electricity generation and the issue of licences and permits. The electricity sector was subsequently entrusted to the new Ministry of Industry and Electricity, which included an Industrial Affairs Agency and an Electricity Affairs Agency, the latter tasked with coordination, regulation and planning. In 1976, the Electricity Corporation was established to coordinate the electricity plans in the Development Plan.

Up to 1981 the electricity generation was transferred to four regional Saudi Consolidated Electricity Companies ("**SCECOs**"). This led to the development of the network throughout the country. Areas not covered by the SCECOs, were managed by the General Electricity Corporation.

In 1998 The Government, through the merger of all the Saudi electricity companies, established the Saudi Electric Company ("**SEC**"). The purpose of this restructuring was to improve the sector by increasing the efficiency and performance of the sector. From the governmental point of view, competence in respect of Power and Water was allocated in 2003 to the Ministry of Water and Electricity. Relevant legislation was then issued to create a comprehensive legal framework, including:

i. Electricity Law issued by Royal Decree No M/56, 22 November 2005; and

ii. Implementing Regulations and Charter of the Electricity & Cogeneration Regulatory

[71] OPWP *Spot Market Summary.* Available at https://www.omanpwp.om/Docs/Spot%20Market%20Development%20Summary%20(Updated).pdf

Authority (No.154) issued by the Council of Ministers in 2007.

Regulator

The regulator of the Saudi electricity sector is the Electricity & Cogeneration Regulatory Authority ("**ECRA**"), established pursuant to Council of Ministers Resolution No. 236 of 200172. ECRA is responsible for regulating the desalination and electricity sectors and other sectors such as wastewater treatment and district cooling. The mission statement of ECRA is summarised in Art. 3 of its Charter:

"The Authority shall regulate and supervise the Electricity and Desalinated water Industry, monitor its performance, co-ordinate between the relevant institutions, entities and Licensees in order to establish a regulatory and procedural framework that is necessary for performing Electricity Activities and water desalination at high levels of quality and reliability with appropriate Prices and Tariffs that support sustainable development." Among the means to reach the goals set out in Art. 3, a pre-eminent place is reserved to the encouragement of the local international and local private sector to invest and participate in the development of the industry. ECRA undertakes to protect the private investments and to enable the investor to realise a fair economic return through a fair and transparent Price and tariff structure to be applied until the establishment of a competitive electricity market. The creation of such market and its future oversight are also among the prerogatives of ECRA."

While aiming at creating adequate, reliable and reasonably priced supply in a fair and transparent framework, ECRA further undertakes to protect public interest and consumers' rights.

The main responsibilities of ECRA for the purposes of this research include:

i. issuing licenses for generation, transmission, distribution, retailing and trading of electricity;

ii. monitoring licensees' compliance with their license requirements and conditions;

iii. coordination of the infrastructure of the electricity industry and development of the expansion plans of these industries;

iv. assessment of tariffs charged for supply of electricity, periodic review of these tariffs, proposing (as needed) new tariffs to the government, protecting interests of stakeholders in the industry, investigating and resolving complaints by involved parties, and improving industry performance; and

v. developing and issuing best practice codes and standards, ensuring adequacy of the R&D activities of the electricity industry, promoting energy conservation measures and handling other relevant technical matters in coordination with the relevant authorities.[73]

Market Structure

[72] ECRA website [online] Available at https://www.ecra.gov.sa/en-us/ECRARegulations/Regulations/Documents/Electricity%20Law.pdf [Accessed 17 May 2020]
[73] ECRA website [online] Available at https://www.ecra.gov.sa/en-us/Pages/default.aspx [Accessed 17 May 2020]

The Saudi market structure is a bundled single-buyer structure. SEC owns many of the power generation plants and nearly all transmission and distribution networks. Power generation is open to the private sector, with respect to privately owned generation assets, SEC is the sole purchaser.

The main generation companies are SEC and several private companies including Saline Water Conversion Corporation, Saudi Aramco, Tihamah, Power and Utility Company for Jubail and Yanbu (MARAFIQ), Water and Electricity LLC (WEC) and several large industrial firms. Distribution is managed exclusively by the SEC, creating a vertically integrated monopoly.[74]

Over time, although the government had been responsible for all power sector investment, the financial situation had led to a much greater attention to IPPs and private investment in general. The generation from non-governmental sources is increasing and by 2018 reached 30%. IPPs have supported the government finances by providing capital (in full or in part as SEC tends to still hold a majority stake in the project), thereby reducing the burden of government investment, establishing more cost competitive projects and generally implementing projects in a more time efficient manner.[75]

Cycle of an IPP

In 2014 the Board of Directors of SEC created the "Energy Trading and New Ventures" unit, which aims to develop IPP projects, follow up on their implementation, manage the electricity sale and purchase agreements and participate with the Regulators in the development of the market. The unit is split into three departments, including the IPP & Renewable Energy department. Sector's main objective is to plan, execute, and follow-up the development of private sector investments in IPP Projects, including the bidding process, qualification, and selection of developers.

The Electricity Law sets the framework for IPPs without distinction between conventional and renewable energy sources. The government intends to depart from a structure where the SEC owns the majority stake of the production companies and encourage private investment up to 100% of the equity in each project.

IPPs are awarded on the basis of competitive bidding, usually preceded by a request for expressions of interest and a pre-qualification process. The projects are usually based on the BOO model and involve long term Power Purchase Agreements (up to 25 years) with SEC. Each project is currently built, owned and operated by a joint venture company between the investor(s) and SEC, established in the form of a Saudi closed joint stock company. SEC guarantees power purchase, provides fuel and makes available land and infrastructure to connect the project to the grid.[76]

Future Developments

The electricity market features prominently among the main sectors the Saudi government intends

[74] Camos, Bacon, Estache, and Hamid (2018) *Shedding Light on Electricity Utilities in the Middle East and North Africa Insights from a Performance Diagnostic* [online] Available at *http://documents.worldbank.org/curated/en/193561510134322792/pdf/121006-PUB-PUBLIC-PUBDATE-11-07-17.pdf* [Accessed 14 May 2020]
[75] Apicorp (2018) *Saudi Power Sector: reforms underway, Vol. 3, No. 13* [online] Available at http://www.apicorp-arabia.com/Research/EnergyReseach/2018/APICORP_Energy_Research_V03_N13_2018.pdf [Accessed 16 May 2020]
[76] Oxford Group (2010) *The Report: Saudi Arabia*

to reform as part of its Vision 2030, the main aims of which are to diversify the economy and allow for greater participation of the private sector. With respect to the power, Vision 2030 intends to reduce government spending by reducing subsidies and creating an efficient electricity market funded to the greatest extent possible by private investment.

Having realised the geographic and meteorological potential for the production of renewable energies, the Saudi authorities have committed to accelerating the development of the renewable energies sector and have issued a number of tenders for PV and Wind Power tenders via the Renewable Energy Project Development Office. These tenders relate to 100% investor owned projects (with no government participation/funding), on BOO model and with long term PPAs.

From a more general point of view, Saudi has been considering for a rather long time the possibility of unbundling and "splitting" SEC in a number of power-generating companies, one transmission company and one distribution company. This would be the first step towards the liberalisation of the electricity sector. The resulting generating companies may then be listed on the Saudi Stock Exchange, thereby leading to (at least partial) privatisation.
In the new model, the government would maintain its role of sole buyer and owner of the transmission and distribution networks in an unbundled sector. Therefore, the market structure would become more similar, e.g. to the Omani model and allow for further reforms such as the creation of a competitive market.

Conclusion

Electricity consumption in Saudi Arabia has risen dramatically over the past 20 years due to a number of factors such as higher income levels, population, urbanisation, economic growth, and subsidised electricity prices. The Saudi government has invested heavily in generating capacity to meet the demand. However, reforms are needed also in light of the budgetary concerns that have been affecting the country since oil prices have declined in 2014. The Saudi sector requires a new structure to meet demand by improving efficiency, reduce subsidies (thereby increasing prices as low prices have led to overconsumption) and, most importantly, create a more modern market with greater participation of the private sector.

The reaction of consumers to price hikes is difficult to predict and, together with the uncertainty on the renewable energies integration and the general future of the electricity market shows that the overhaul of the sector will require careful planning and application of international best practices.

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6. MANAGING DISPUTES IN THE POWER SECTOR

6.1. Introduction

There are several model PPA and IAs in place in Pakistan. Each category of power generation has its own PPA and IA that takes into account the peculiar issues of that project category, e.g. thermal (oil and gas), hydel, wind, solar and coal etc. The GOP also recently introduced a new model trip-partite agreement proposed to be entered between CPPA, NTDC and the IPP considering the restructured power procurement model where NTDC is no longer the power purchaser. Though there are several categories of precedent PPA and IA, the dispute resolution clause set out in each category of model documents is substantially the same.

The dispute resolution clauses set out in the incumbent model PPA and IA have evolved as new power policies were formulated from time to time. The initial power policies provided English law as the governing law of the projects documents and provided for arbitration in London. As the sector experience developed, this was then changed to Pakistani law and arbitration with a choice of place of arbitration. In the case of direct agreements in respect of the PPA and IA where foreign lenders are participating in a project the governing law of those direct agreements is English law.

The position under the PPA and the IA for resolution of disputes is substantially the same. Both agreements provide for a multi-tiered dispute resolution mechanism, which can be broken down in the following:

i. negotiation between contract counterparties providing 30 days negotiation period;

ii. failing negotiation, reference of the dispute for an expert determination; and

iii. final resolution of the dispute by way of international arbitration under the LCIA Rules of Arbitration or UNCITRAL Arbitration Rules as may be applicable with the place of arbitration in Lahore or London subject to a threshold amount.

Under certain prescribed circumstances, it is possible for the parties to refer a dispute for resolution directly by way of arbitration instead of referring the matter first to an arbitrator. Also, while the expert's determination of each matter referred to him would not be final and binding under certain circumstances, an expert's determination is considered final and binding. The expert's determination is considered final and binding particularly in respect of certain technical matters.

6.2. Dispute resolution mechanism under the PPA

The following are the key provisions of the dispute resolution clauses set out in the current standard PPA. Under the model tri-partite PPA both the power purchaser and NTDC are considered together.

i. Upon the occurrence of any dispute, the power purchaser and the IPP are required to undertake discussions in good faith within 30 days of a notice in writing by either party to try and resolve the dispute.

ii. If the parties cannot resolve their dispute within the prescribed period of time, then either party may refer the dispute to an expert for an expert determination of the dispute. An

expert determination as a general rule under Pakistani law is not considered equivalent to an arbitration award. Thus, the laws and principles relating to commercial arbitration do not apply. Any evidence or statements made during this determination cannot be used in any other proceedings.

iii. As a general rule, expert determinations under these agreements are not considered binding on the parties provided that a party commences the arbitration procedures within 75 days of the expert's decision. If no arbitration proceedings are commenced within this time period, then the expert's determination shall become final to the extent permitted by applicable law. It should be noted that for those disputes which are required to be resolved by an expert, the decision shall be final and binding on the parties, unless a manifest error or fraud has occurred.

iv. Under certain circumstances, the parties may be able to skip the expert determination process and refer their dispute directly for arbitration. Under the PPA and the IA, provided that the matter in dispute is not one that must be referred for an expert determination under the agreements, either party may refer dispute directly to arbitration. However, if an expert determination has commenced and a determination is not given within the time period prescribed then the arbitration proceedings may be started by either party. The matters that must be referred first for an expert determination comprise matters such as: testing disputes, force majeure disputes, disputes related to drafting operating procedures, and payment disputes.

v. Subject to the requirements stated above, any dispute arising out of or in connection to these agreements shall be settled by arbitration in accordance with arbitration rules of the LCIA, as in effect on the date of the relevant agreement. The dispute will be resolved by a sole arbitrator pursuant to the rules.

vi. If a dispute cannot be settled under the LCIA arbitration rules as the application of the LCIA rules may result in an award that is not enforceable in Pakistan, the dispute will be settled by arbitration under the Rules of Arbitration of the United Nations Commission on International Trade Law or the UNCITRAL Rules. The dispute will be resolved a sole arbitrator appointed in accordance with the UNCITRAL Rules.

vii. The arbitration shall be conducted in Lahore, Pakistan. However, this does not mean that the legal place or seat of the arbitration is Lahore as recently held in the recent *Atlas Power et al v NTDC*[77] case, which is explained below. The agreements provided two means of calculating the threshold amount to determine whether the place of arbitration should be London or Lahore. According to the latest tri-partite PPA, if the dispute is greater than US$4 million or the amount of the dispute together with amount of all previous active disputes in arbitration is in excess of US$6 million then the arbitration must be conducted in London, unless agreed otherwise by the parties. The amount set out in other agreements slightly varies though this would be finally a matter to be agreed between the parties at the time of entering into the relevant documents. If the dispute is concerning the legality, validity or enforceability of the agreement or any material provision, or concerning the termination of the agreement, then it must also be conducted in London, unless agreed otherwise by the

[77] *Atlas Power Ltd & Ors v National Transmission and Despatch Company LTD* [2018] EWHC 1052 (England and Wales High Court) (Commercial Court).

parties. If a dispute is not eligible to be conducted in London either party may conduct a dispute in London, or any other place in the world as agreed by the parties, as long as the party requiring such location pays all costs of arbitration in excess of costs which the other party would have incurred in Lahore.

viii. Furthermore, the party requiring that arbitration be conducted in London (or such other location outside Pakistan agreed by the Parties) may seek a determination that the dispute or the defence thereof is spurious and without any merit whatsoever, and upon such a final and binding determination, any amounts paid to the other party to cover such excess costs shall be returned to the paying party.

ix. An arbitrator for a dispute cannot be a national of the jurisdiction of either party, or of the jurisdiction of any investor which directly or beneficially owns 5% or more of the ordinary share capital in the SPV. The arbitrator also cannot be an employee or agent or former employee or agent of the parties, any lenders or any investors in the SPV which directly or beneficially owns more than 5% of the ordinary share capital.

x. The arbitration clause in the agreements shall have an overriding effect on any arbitration clause or provision to the contrary or otherwise in any BIT to which Pakistan is or may become a party. The effect of that being that the dispute resolution clause would supersede the dispute resolution clause in a BIT. Whether from a legal and practical perspective, that provides any protection to the GOP is something that would have to be seen.

xi. Furthermore, the power purchaser and NTDC under the trip-partite PPA (and the power purchaser only under the bilateral PPA) also agree to waive sovereign immunity in respect of its assets though certain assets of the power purchaser are deemed to be protected and hence excluded from the possible enforcement proceedings. In particular, the power purchaser and NTDC:

xii. agree that should any proceedings be brought against it or its assets, other than the grid system, electric generation assets and equipment, electric distribution assets or other assets necessary for the fulfilment by the power purchaser of its duties and responsibilities under Regulation, Transmission, and Distribution of Electric Power Act (XL) of 1997 (or the law creating any successor, assignee or permitted transferee of the power purchaser), and the transmission licence issued to it by NEPRA (Protected Assets) in any jurisdiction where such assets or property of the power purchaser are located to enforce any award or decision and no claim of immunity from such proceedings shall be made by or on behalf of the power purchaser and NTDC on behalf of itself or any of its assets (other than Protected Assets) that it now has or may in the future have in any such jurisdiction in connection with any such proceedings;

a. waives any right of immunity that it or any of its assets (other than Protected Assets) now has or may in the future have in any jurisdiction in connection with any such proceedings; and

b. consents generally to the jurisdiction of any court of competent jurisdiction for any action filed by the project company to enforce any award or decision of any arbitrator who was duly appointed under the agreement to resolve any dispute between the parties (including the making, enforcement or execution against or in respect of any of its assets whatsoever (other than the Protected Assets) regardless of its use or

intended use) and specifically waives any objection that any such action or proceeding has been brought in an inconvenient forum and agrees not to plead or claim the same. The power purchaser and NTDC also agree that service of process in any such action or proceeding may be effected in any manner permitted by the law applicable to the aforementioned court.

xiii. The SPV also unconditionally and irrevocably consents generally to the jurisdiction, with respect to itself and any and all of its assets and property that it now has or may hereafter acquire, of any court of competent jurisdiction for any action filed by the power purchaser to enforce any arbitral award or decision made pursuant to arbitration conducted under the agreement. The SPV waives its right to object to the venue of any action or proceeding brought as consented in the particular clause and further waives any objection that any such action or proceeding has been brought in an inconvenient forum and agrees not to plead or claim the same. The SPV agrees that service of process in any such action or proceeding may be effected in any manner permitted by the law applicable to the aforementioned court. The SPV irrevocably waives any and all rights it may have to enforce against the Protected Assets.

6.3. Dispute resolution mechanism against the GOP under the IA

As stated above, the dispute resolution mechanism set out in the IA is substantially the same as in the PPA. They key differences are as follows, which are on the basis that the profile of the parties to the IA and PPA is different, in terms that the IA is entered between the IPP and the GOP.

i. There is no mandatory list of matters that must be referred to an expert in the first instance for an expert determination before an arbitration may be commenced.

ii. Possibility that threshold amounts that determine the place of arbitration may differ.

iii. Furthermore, the GOP also agrees to waive sovereign immunity in respect of its assets though certain assets of the power purchaser are deemed to be protected and hence excluded from the possible enforcement proceedings. In particular, the power purchaser:

   a. agrees that should any proceedings be brought against it or its assets, other than the aircraft, naval vessels and other defence relates assets or those assets that are protected by diplomatic and consular privileges (Protected Assets) in any jurisdiction where such assets or property of the GOP are located to enforce any award or decision and no claim of immunity from such proceedings shall be made by or on behalf of the power purchaser on behalf of itself or any of its assets (other than Protected Assets) that it now has or may in the future have in any such jurisdiction in connection with any such proceedings;

   b. waives any right of immunity that it or any of its assets (other than Protected Assets) now has or may in the future have in any jurisdiction in connection with any such proceedings; and

   c. consents generally to the jurisdiction of any court of competent jurisdiction for any action filed by the project company to enforce any award or decision of any arbitrator who was duly appointed under the agreement to resolve any dispute between the

parties (including the making, enforcement or execution against or in respect of any of its assets whatsoever (other than the Protected Assets) regardless of its use or intended use).

iv. The SPV also unconditionally and irrevocably consents generally to the jurisdiction, with respect to itself and any and all of its assets and property that it now has or may hereafter acquire, of any court of competent jurisdiction for any action filed by the power purchaser to enforce any arbitral award or decision made pursuant to arbitration conducted under the agreement. The SPV waives its right to object to the venue of any action or proceeding brought as consented in the particular clause and further waives any objection that any such action or proceeding has been brought in an inconvenient forum and agrees not to plead or claim the same. The SPV agrees that service of process in any such action or proceeding may be effected in any manner permitted by the law applicable to the aforementioned court. The SPV irrevocably waives any and all rights it may have to enforce against the Protected Assets.

6.4. Power Sector FDI and bilateral investment treaties

FDI is currently one of the main growth factors in developing economies. Generally, FDI is defined as a direct equity investment in an economy. The "foreign" element is linked to the geographic and legal residence of the investor, who invests in another country by acquiring control on a business registered and resident in such other country.

The BOI issued its first investment policy in 1997. Up to that date, foreign investment was allowed only in the manufacturing sector. The 1997 policy opened a number of new business sectors to foreign investors, including infrastructures, agriculture and services. This policy contributed to the integration of Pakistan in the international markets and started a season of development of FDI in Pakistan. FDI averaged 2651.26 USD Million from 2010 until 2016, reaching an all-time high of 3184.30 USD Million in 2010 and a record low of 2099.10 USD Million in 2012.

Currently, Pakistan allows repatriation of capital, capital gains, dividends and profits. Foreign investors may avail foreign loans for financing cost of import of plant and equipment and are allowed unlimited local borrowing for working capital. The 2013 BOI Investment Policy abolished the previously applicable minimum capital requirements for all sectors. Currently, there is no minimum investment requirement or restriction on the share of foreign equity allowed, with the exception of the airline, banking, agriculture, and media sectors. Foreign investors in a number of sectors, including services and infrastructure may retain 100% equity throughout the life of the investment and are allowed to repatriate 100% of profits. [78]

Specifically, the electricity sector has been an important component of the FDI. The power and energy sector in fact has received over time the comparatively greatest amount of the total FDI (approx. 35%), followed by the communication and financial business sectors. FDI in the sector has contributed to a significant extent to the overall development of the Pakistan economy. FDI in Pakistan has followed the general trend of the Pakistani economy, reducing greatly around 1998/1999 as a result of the political situation. Once the political situation and the international relations of the country improved, the FDI started once again to grow, particularly between 2005 and 2008, following the general trend. In more recent years, the tendency was confirmed: Pakistan

[78] http://emergingpakistan.gov.pk/opportunities/foreign-direct-investments/

has been rather successful in attracting FDI by offering incentives and a more secure business environment.

Among the main FDI projects created in Pakistan since 2014, many are power plants of different types. The main FDI investors originate from a variety of countries, including the United Kingdom, the United States and, increasingly, China. [79]

Bilateral Investment Treaty

A bilateral investment treaty is a treaty establishing the terms and conditions for private investment by nationals and companies of one state in another state. The general aim is to promote cross border investments by providing beneficial conditions and protection on a reciprocity basis to the nationals of the contracting parties.

Pakistan has entered into Bilateral Agreements on Promotion and Protection of Investment with more than 40 countries including a number of countries from the European Union, the Gulf Co-operation Council and the Asian region. Many were entered into in the mid-90s.

The domestic legal framework includes the Foreign Private Investment (Promotion and Protection) Act, 1976 and the Furtherance and Protection of Economic Reforms Act, 1992. The main terms of these treaties can be summarised as follows:

i. each contracting state must encourage investments in their respective territories by investors of the other contracting state;

ii. each contracting state must ensure non-discrimination between local investors and investors from the other contracting state, including treatment in respect of compensation for losses due to war or national emergency;

iii. each contracting state must ensure free transfer of investments, and repatriation of project income of any kind;

iv. the treaties provide for a dispute settlement mechanism to settle disputes:

   a. between the contracting states with respect to the interpretation of the treaty; and

   b. between a contracting state and an investor from the other contracting state.

6.5. Pakistan's recent experiences involving investor state and commercial disputes

Pakistan has been involved in number of international disputes both involving public international and commercial matters. Some of these commercial disputes have been more recent and their adverse decisions against Pakistan has put in limelight the country, its legal resources and experience of handling such sophisticated international commercial disputes. Some of these disputes have been before the ICSID where adverse awards against Pakistan have affected its

[79] *Rashid Latief & Lin Lefen, 2019. "Foreign Direct Investment in the Power and Energy Sector, Energy Consumption, and Economic Growth: Empirical Evidence from Pakistan," Sustainability, MDPI, Open Access Journal, vol. 11(1), pages 1-21, January.*

reputation, particularly when the country is actively seeking to increase its FDI.

The Pakistani power sector has been a source of contention since the award of the first IPP. While, each government has claimed that the previous government has taken decisions driven by corruption in introducing and implementing power sector policies, little real changes have been on the policy front as little to no real changes were introduced in the project procurement and risk allocation profiles.

This section looks at some select international commercial disputes in which the GOP was involved. These cases pertain to the first IPP, also known as the Hubco case, the Karkey case pertaining to a rental power projects, the NTDC case, Atlas Power et al v NTDC and the Reko Diq mining dispute. This section will consider how the corruption argument has been used by the GOP on past disputes and how that argument has been considered by international dispute resolution bodies. The Karkey and Reko Diq decisions rendered by ICSID arbitral tribunal involving Pakistan are worth mentioning in this section as both involved allegations of corruption, and termination of the agreements by the GOP and the declaration of those agreements as void ab initio by the Pakistani courts.

The Hub Power Company Limited (Hubco) Versus Pakistan WAPDA ("Hubco Case")[80]

Hubco was the first IPP in Pakistan. The Hubco PPA was executed in 1992 between Hubco and WAPDA. The events surrounding the Hubco dispute are not very different from the current circumstances, i.e. a political change in Pakistan and allegations of corruption in the award and procurement process of the IPP. This followed a unilateral demand by the newly formed government for reduction in the tariff agreed in the PPA.

Given the situation, where it appeared to Hubco that the GOP may unilaterally attempt to revise its agreed tariff or otherwise affect its rights under the PPA, in 1998, HUBCO claimed a dispute and invoked the arbitration clause under the PPA. Hubco requested the ICC for constitution of an arbitration tribunal to decide the dispute.

The clause 15 in the Hubco PPA provided as follows.

"15.1 Government Law:
The rights and obligations of the parties wider or pursuant to this Agreement shall be governed and construed according to the laws of England.

15.2 Disputes Procedure:
If any dispute or difference of any kind whatsoever (the "Dispute") shall arise between WAPDA "the respondent's and the Company in connection with or arising out of this Agreement, the parties shall attempt to settle such dispute in the first instances within forty-five (45) days by, discussions between the Company and WAPDA.

15.4 Arbitration:

(a) If the dispute cannot be settled within forty-five (45) days by discussions and referral to an expert is not required by this Agreement, or if referral to an expert was required but the dispute was referred for arbitration in the circumstances set out in section 15.3(g) then the dispute shall

[80] *THE HUB POWER COMPANY LIMITED (HUBCO) v. PAKISTAN WAPDA* [2000] PLD 841 (Supreme Court).

be finally settled under the provisions of sections 15.4 to 15.7.

(b) If and when GOP has implemented the convention on the Settlement of Investment Disputes between States and National of other States (the "Convention") any dispute arising out of or in connection with agreement shall (regardless of the nature of the dispute but without prejudice to the provisions of this Agreement requiring any matter to be referred to an expert for final determination) be referred to arbitration and finally settled in accordance with- the Convention and the Rules of Procedure for Arbitration Proceedings of the International Centre for Settlement of Investment disputes (the "Centre") established by the Convention (the "ICSID Rules") and the parties hereby consent to arbitration thereunder. The parties are agreed. that Company shall be deemed to be a foreign controlled company for the purposes of Article 25(2)(b) of the Convention so long as not less than thirty per cent. (30%) of the shares of the Company are held by Foreign Investors. Arbitration proceedings conducted pursuant to this section 15.4(b) shall be held in London, England.

(c) Unless and until GOP has implemented the Convention by an Act or an Ordinance confirmed by an Act, or if, for any other reasons the dispute cannot be finally settled pursuant to the terms of the Convention, .any dispute shall be finally settled by arbitration in London, England under the rules of Arbitration of the International Chamber of Commerce (the "ICC Rules") by one or more arbitrators assented in accordance with the ICC Rules.

(d) No arbitrator appointed pursuant to section 15.4(b), section 15.4 (c) or section 15.4(d) shall be a national of the jurisdiction of either party to this Agreement or of the jurisdiction of any of the Initial shareholders nor shall any such arbitrator be an employee or agent or former employee or agent of any such person.

(e) The language of any arbitration under section 15.4(b) section 15.4(c) or section 15.4(d) shall be English."

The arbitration agreement provided for arbitration in London under the ICC Rules until the time the GOP implemented the ICSID Convention. WAPDA contended that under the PPA the parties had envisaged that issues of fraud and corruption were referable only to the Pakistani courts. WAPDA took the position that the dispute involved issues of fraud and corruption and hence should not be decided by arbitration but instead those issues should be referred to the local courts and commenced proceedings in the Pakistani courts.

The dispute between the parties went up all the way up to the Pakistani Supreme Court to determine whether issues of fraud and corruption where referable to arbitration or not. The Supreme Court, by a majority of justices on a split of 3-2 held that "…allegations of corruption in support of which the above-mentioned circumstances do provide prima facie basis for further probe into matter judicially and, if proved, would render these documents as void, therefore, we are of the considered view that according to the public policy such matters, which require finding about alleged criminality, are not referable to Arbitration".

The Supreme Court held that "the dispute primarily relates to very existence of a valid contract and not a dispute under such a contract." On the basis of this decision, the Supreme Court restrained Hubco from pursuing the arbitration under PPA.

The minority decision applied the doctrine of separability and held that the arbitration agreement

was separate from the main agreement. They held that even if the validity of the agreement in question was challenged, the arbitration agreement will be treated as a separate agreement and can be relied to determine the validity of the main agreement. As a result, they held that allegations of invalidity, including serious allegations of the agreement being void ab initio, were perfectly capable of being referred to arbitration. The minority decision noted that the award, once pronounced, shall be brought to Pakistan for execution and the parties would be open to challenge the award at that time on any ground permissible under Pakistani law.

It is interesting to note that in the Hubco matter the GOP also made a corruption and impropriety allegation against one of the World Bank staff members involved on the project.[81] Following a further political change in Pakistan in 2000, the GOP, WAPDA and Hubco entered into a settlement agreement mediated by the World Bank. By way of the settlement agreement it was agreed that all disputes between the parties were resolved and both WAPDA and Hubco withdrew all civil and criminal cases and international arbitration proceedings against each other.[82]

The involvement and decision of the Supreme Court in the Hubco case is considered by international commentators and jurists as aggressive[83] that contributed to a perception that the local courts cannot be perceived as neutral. This in turn adversely impacted investor confidence.

Karkey Karadeniz Elektrik Uretim A.S. and Islamic Republic of Pakistan (ICSID Case No. ARB/13/1) ("Karkey Case")

The Karkey case is another dispute relating to power projects. Particularly, this case was in relation to a rental power project and concerned the Rental Power Projects Policy 2006. During a period of severe electricity crisis being faced by Pakistan and following a political change, PPIB issued an international competition process inviting proposals for establishment of rental power projects under the Rental Power Projects Policy. Karkey Karadeniz Elektrik Uretim A.S, a Turkish power generation company, submitted a bid in response to the competition process which was subsequently approved.

In 2012, the Supreme Court of Pakistan while exercising original jurisdiction in a case that became known as rental power projects corruption case, rendered a judgment declaring that all rental power projects, including the one between Karkey and GOP, were void ab initio and illegal as having been obtained in a non-transparent manner.[84] The Supreme Court also ordered the PPA for all rental projects, including that of Karkey to be rescinded. An investigation by NAB was also ordered into potential corruption by the RPP sponsors and various public officials. The Supreme Court made no finding of corruption anywhere in the judgement though it did hold that corruption could not be ruled out.

In April 2012, an inquiry was launched against Karkey by NAB. NAB placed the names Karkey's management team on the ECL thereby prohibiting them from leaving Pakistan. In addition,

[81] Julia M..2005.Lessons from the independent private power experience in Pakistan (English). Energy and Mining Sector Board discussion paper ; no. 14 Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/729661468285358780/Lessons-from-the-independent-private-power-experience-in-Pakistan

[82] DAWN.COM. 2020. Hubco, Wapda To Withdraw Cases. [online] Available at: <https://www.dawn.com/news/1576/hubco-wapda-to-withdraw-cases> [Accessed 11 July 2020].

[83] International Project Finance and Arbitration with Public Sector Entities: When is Arbitrability a Fiction? Mark Kantor available https://core.ac.uk/download/pdf/144225943.pdf [Accessed: 4 July 2020]

[84] Human Rights Cases No. 7734-G/2009, 1003-G/2010 and 56712 of 2010 in the matter of Alleged Corruption in Rental Power Plants etc. 2012 SCMR 773

Karkey's bank accounts were frozen. Further, NAB determined a liability of US$183.5 million against Karkey and demanded that be paid within 48 hours.

In May 2012, Karkey issued GOP a notice of dispute under Pakistan-Turkey BIT. Following that in October 2012, NAB issued a no-objection letter to Karkey confirming that NAB was satisfied that Karkey had no liability under the anti-corruption legislation and that NAB had completed and closed its inquiry in respect of Karkey. Subsequently, a caution or attachment that was placed on the vessels owned by Karkey was also lifted though practically those vessels remained detained by the GOP. The caution over the vessels was re-imposed and the Supreme Court directed NAB to recover US$120 million from Karkey. NAB informed Karkey that the vessels had been detained as security for payment. The Supreme Court also ordered NAB to pursue criminal liability and arrest persons involved in the tender process. Thereafter in January 2013, Karkey filed an investor state arbitration request before the ICSID against the GOP on the basis of alleged violations by the GOP of the Pakistan-Turkey BIT and the expropriation of Karkey's investment by the Pakistani state.

Pakistan's defence in the ICSID arbitration, among other things, relied heavily on illegality of the investment, breaches of Pakistani laws, fraud, and corruption and corrupt practices by Karkey.

The ICSID arbitral tribunal considered Pakistan's defence and the allegations made by the GOP that Karkey's investment was tainted by corruption. The tribunal made certain important determinations which would be serve useful guidance in respect of taking similar defence strategies on future disputes. In short, all allegations of corruption by Pakistan against Karkey were rejected by the tribunal. The ICSID tribunal noted that the allegations did not even come close to being sufficient to demonstrate that Karkey was involved in corruption. The tribunal made 26 findings in its final award, which were all against Pakistan.

Pakistan had claimed that the standard for proving that Karkey was involved in corruption was an ordinary balance of probabilities. Karkey had taken the position that the standard of proof for allegations of corruption was high and that an allegation must be proved by clear and convincing evidence, as that is the standard under international law. The tribunal found that the seriousness of accusation in the present case, including the fact that it involves officials at the highest level of GOP at the time, requires clear and convincing evidence. The tribunal noted that there is consensus amongst international tribunals regarding the need for a high standard of proof of corruption. However, the tribunal noted that in the case, had they accepted GOP's position and applied an ordinary balance of probabilities they would have still reached the same conclusion they did.

Furthermore, the ICSID tribunal held that with respect to the burden of proof the GOP had the responsibility for discharging the burden of proof with respect to its allegations of corruption pursuant to the well-established principle *onus probandi incumbit actori,* i.e. the party that asserts must prove. The tribunal noted the burden of proof may shift with respect to corruption and fraud to Karkey should the tribunal be satisfied that there is unequivocal or otherwise unambiguous apparent evidence in this regard.

In regard to requirements for finding of corruption under Pakistani law, the tribunal noted that it could not ignore GOP's allegations that Karkey's investment was obtained through corruption, and thus was not in conformity with Pakistani law, and hence not protected by the Pakistan-Turkey BIT. The tribunal held that Pakistani corruption laws may apply to irregularities arising in a public procurement, and that, a person (including Karkey and/or its directors) would have "committed the

offence of corruption and corrupt practices" under Section 9(a) of the NAO, inter *alia,* if such person accepts, obtains or offers any valuable thing for inadequate consideration from a person he or she knows is (or is likely to be) concerned in a business transaction within which they are involved under Section 9(a)(ii) of the NAO. The tribunal analysed the four counts of corruption alleged by Pakistan against Karkey.

First, the tribunal found that GOP failed to demonstrate that the alleged person was involved in anything that could qualify as corruption, apart from alleged suspicions and "red flags" which are not sufficient to indicate, far less prove, the occurrence of corruption. Second, the tribunal was not satisfied that the so-called "red flags", consisting solely of questions, were of sufficient weight and credibility to shift Pakistan's burden of proving its allegations of corruption to Karkey, so as to require Karkey to exonerate itself. The tribunal was unable to find in the elements included in Pakistan's questions, "red flags" suggestive of corruption, such as to transfer the burden of proof, still less any positive proof of corruption. It also noted that "moreover, suggesting, as in question (k), that a Minister could have been corrupted by an amount of AED 350,000 (less than US$100,000) in relation to a project of a value of several hundreds of millions of US Dollars is not convincing, in particular when it has been shown that it corresponded more or less to the compensation of Mr. Zulqarnain [Karkey's local representative in Pakistan] to whom the amount was actually paid."

Third, the tribunal found nothing disproportionate in the payment of five plane tickets (in the total of approximately €3,000.00) for a delegation of Pakistani government officials in the context of a visit to Karkey's headquarters to witness the development of the project. They held that such payment is not sufficient for a finding of corruption and/or as a "valuable thing" offered by Karkey for inadequate consideration under Section 9 of the NAO.

Fourth, the tribunal found that there was no evidence of corruption on the record related to Karkey's alleged investment and that Pakistan's last minute allegations related to the "*scheme*" were based on manoeuvres by persons who may or may not have been identified which were more probably aimed at extorting money from Pakistan or at derailing the arbitration proceedings than at genuinely allowing corruption to be established. They held that this cannot lead to a finding of corruption or even a shifting of the burden of proof. Even if the Tribunal were to apply the "*balance of probabilities*" standard as proposed by Pakistan, the Tribunal found that there is insufficient evidence to demonstrate that it was more likely than not that Karkey was involved in the practice of corruption.

The ICSID tribunal while assessing the impact of the Pakistani Supreme Court's decision regarding RPP, and responding to Pakistan's suggestion that it is treated as authoritative and only can be ignored if a denial of justice is made out, quoted the International Court of Justice in the Diallo[85] case as implicitly indicating that an international tribunal is not bound by the finding of a national jurisdiction exception in exceptional circumstances by stating that "exceptionally, where a State puts forward a manifestly incorrect interpretation of its domestic law, particularly for the purpose of gaining an advantage in a pending case, it is for the Court to adopt what it finds to be the proper interpretation,"

The tribunal held that since corruption was never proved, Pakistan cannot rely on the Supreme

[85] ICJ, Case concerning *Ahmadou Sadio Diallo*, *Republic of Guinea v. Democratic Republic of the Congo*, Judgment of 30 November 2010, ICJ Reports 2010, p. 639

Court judgment in so far as it refers to the breach of procurement laws as it was Pakistan's officials who are supposed to have breached the law and/or decided not to apply the procurement laws. It also noted that Supreme Court played an active part in several of the acts attributable to the Pakistani state and that are presented by Karkey as a general pattern of breaches of the Pakistan-Turkey BIT.

The tribunal held that it did not consider itself to be bound, as an international tribunal, by the finding of the Pakistani Supreme Court that Karkey's RPP Contract was void *ab initio.* However, it held that the Judgment would not be ignored, and it would be considered by the tribunal as a factual evidence. The tribunal rejected Pakistan's contention that Karkey's investment was established in material breach of fundamental principles of Pakistani law and that it was contrary to Article I(2) of the Pakistan-Turkey BIT.

The tribunal, while deciding upon jurisdiction, and claims by Pakistan that illegality in the making of the investment would deprive the tribunal of jurisdiction pursuant to the Pakistan-Turkey BIT, held that:

i. in respect of Karkey's alleged investment established by way of fraud or misrepresentation in breach of under the Pakistan-Turkey BIT, the tribunal found that Pakistan failed to adduce evidence to support the occurrence of either fraud or misrepresentation; and

ii. in respect of Karkey's alleged investment established by way of mis-procurement in breach of the Pakistan-Turkey BIT, the tribunal found that GOP had consistently maintained in proceedings before the Pakistani Supreme Court that Karkey's investment was properly established in accordance with Pakistani laws and GOP would be estopped from arguing that the investment should be deemed invalid on the basis of a breach of those laws.

Most significantly, the ICSID tribunal noted that a host State cannot avoid jurisdiction under a BIT by invoking its own failure to comply with its own domestic law. In respect of Karkey's claim of expropriation of its investment, the tribunal held that Pakistan had expropriated Karkey's investment through its Supreme Court's decision which declared the contract to be *void ab initio*. The acts and decisions of the Pakistani Supreme Court, which decision the tribunal found arbitrary, are attributable to the State and as such accepted by Pakistan. Thus, Pakistan deprived Karkey of the use and enjoyment of its contractual rights, including Karkey's right to terminate the agreement and as such that interfered with the free transfer of Karkey's investment. This expropriation of Karkey's contractual rights was held to be an event for which Karkey was entitled to compensation from the Pakistani state.

Atlas Power Limited, Halmore Power Generation Company Limited, The Hub Power Company Limited, Liberty Power Tech Limited, Nishat Chunian Power Limited, Nishat Power Limited, Orient Power Company (Private) Limited, Saif Power Limited, Sapphire Electric Company Limited v. National Transmission and Despatch Company Limited ("NTDC Case") [86]

In 2017 nine Pakistani IPPs and NTDC filed a lawsuit before the English courts seeking an anti-suit injunction against NTDC restraining it from challenging a partial final award issued in an LCIA arbitration in a dispute between those IPPs and NTDC under their respective PPAs. This

[86] *Atlas Power Ltd & Ors v National Transmission and Despatch Company LTD* [2018] EWHC 1052 (England and Wales High Court) (Commercial Court).

eventually led to a determination by the English courts regarding the seat of arbitration under Pakistani PPAs.

The seat or legal place of arbitration is crucial point in an arbitration. The law of the seat of arbitration determines the applicable procedural law of the arbitration and governs the question of validity, enforceability of the award and grounds for nullification of the arbitral award.

The central issue before the English courts was whether or not the Pakistani courts had supervisory jurisdiction over the LCIA arbitration between NTDC and the respective IPPs. The IPPs contended that the seat of the arbitration is London and that hence the English courts had exclusive supervisory jurisdiction as the courts of the seat of arbitration. NTDC contended that (i) the courts of Pakistan have at least concurrent jurisdiction, even if the seat is London; and alternatively (ii) if there can be only one supervisory jurisdiction, being exclusively that of the courts of the jurisdiction where the seat of the arbitration is located, the seat must therefore be Lahore, Pakistan. The PPA did not provide expressly provide for seat of arbitration of the dispute. As the parties had not agreed upon a seat in writing in the PPA, under the LCIA Rules of Arbitration unless otherwise determined by the LCIA Court the default seat of arbitration is London. The LCIA Court in fact determined in these arbitrations that the seat of arbitration was London.

The judge of the Queen's Bench Division (Commercial Court) in the NTDC Case held that the seat of the arbitration was London, and not Lahore. He granted a final anti-suit injunction and restrained the NTDC on a permanent basis from challenging the partial final award given in the LCIA arbitration in proceedings in Lahore, Pakistan, or anywhere other than England and Wales. The judge further noted that "it would have been open to NTDC to mount a challenge to those determinations under section 67 (and possibly sections 68 or 69) of the 1996 [Arbitration] Act, but no such application was made and, even now, there is no challenge to the Award on the basis that the seat was not London."

As the determination was made by the English courts in respect of the precedent PPA arbitration clause, the effect of this judgment is that all future disputes under these PPA and future PPAs (unless the arbitration clauses are amended) may be deemed to be seated in London, England. Any challenge to the award would also have to be made before the English courts and would be accepted if it satisfied the test for annulment under the English Arbitration Act.

6.6. Key takeaway

The factual circumstances leading up to an international commercial dispute particularly involving a state or state owned enterprises are important. It is important to bear in mind how the exercise of judicial and executive power can lead to catastrophic results if not done in properly and accordance with domestic law and contractual obligations or where such powers are exercised in an apparently arbitrary manner. According to the cost schedule filed in the Karkey case, on behalf of the GOP, as of 8 June 2016, the GOP had incurred legal and expert costs of GBP10,372,878. At the exchange rate at the time, this amounted to roughly PKR 1.6 billion.

Another important takeaway is that a host government cannot simply allege malfeasance or corruption against the investors to avoid seemingly unfavourable contractual arrangements. An international arbitral tribunal will not simply rely on domestic court decision but will re-examine the matter and must be satisfied independently that there was actual corruption for the agreement to be avoided.

The recent disputes involving the GOP and decisions have adversely impacted not only investor confidence but also Pakistan's sovereign credit rating. Pakistan reportedly managed to avoid the financial obligations determined in the Karkey Case with the help of the Turkish President Recep Tayyip Erdoğan. An announcement made by Karkey stated:

"Considering the friendly relations between Turkey and Pakistan, and the economic and political situation in Pakistan, it has been resolved that an amicable solution to the enforcement of the arbitral award rendered in favor of our company in 2017, and the settlement of all other disputes pending in different jurisdictions between our company and Pakistan, would only be possible by means of a non-monetary reconciliation." [87]

However, till date it is not clear whether Karkey agreed to receive any compensation or what non-monetary compensation was granted to Karkey.

A systematic government effort involving various state agencies, even aggressive and apparently arbitrary court decisions, would be seen by an international tribunal as evidence of a State's intention to expropriate the investment. This can have devastating consequences. The use for investigative and anti-graft authorities and State clandestine agencies in commercial matters, as in the case of the "Report on the Power Sector by the Committee for Power Sector Audit, Circular Debt Resolution and Future Road Map" that makes recommendation regarding renegotiation of contractual documents would most likely be considered as evidence of GOP's intention to expropriate investments of the IPP. The GOP has issued sovereign guarantees under the relevant IAs. There is a risk that an abrupt approach by the GOP in respect of IPPs may result in demands under the sovereign guarantees by the IPPs in respect of their debts owed by the state utilities. This would unnecessarily complicate the legal and financial position of the GOP, when it is already struggling with the retirement of the circular debt.

Whatever actions the GOP considers taking in respect of the IPP sector, it must take a considered and cautious approach that is legally tenable and does not create any unnecessary commercial and legal risks for Pakistan. The steps the GOP takes in this regard will not only impact investor confidence in Pakistan but will determine the future FDI inflow for the near to mid-term future.

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[87] Law360.com. 2020. Pakistan Settles $846M Dispute with Turkish Energy Co. - Law360. [online] Available at: <https://www.law360.com/articles/1216990?copied=1> [Accessed 11 July 2020].

7. PAKISTAN'S POSSIBLE WAY FORWARD

7.1. Market structure and competition

While almost all power policies have provided for competitive bidding, in practice a substantial number of the IPPs were set up as solicited projects. The main reasons for this approach though are not very clear but it does raise substantial concerns on the overall power procurement process. This can in part be linked to the fact that there have been no clear or robust power procurement plans and PPIB and NEPRA ought to have played a more pro-active role in preparing and executing the power plans.

A competitive bidding process that is tariff price driven provides greater transparency, reduces risk of corruption, provides the government or procurer with better value for money and encourages competition. By implementing projects following a competitive bidding process, the GOP and its utilities would be able to procure power on a cheaper basis rather than through solicited proposals. In this regard, Oman provides a very good example and success story of procuring power projects through a competitive bidding process.

Pakistan should invest in developing an appropriate market structure according to its own peculiar requirements. This means that project documents and their risk profile should be developed taking into account local requirements. The GOP should focus on improving the efficiency and payment culture within its utilities sector and press for independent credit rating of its state utilities involved in the power procurement process. Once a stable credit rating is achieved, it would then permit the GOP to remove the requirement of a sovereign guarantee. It makes little sense for the GOP to have restructured the sector into various companies and still be substantially liable for their payment obligations. Also, this will help address issues of circular debt which has been a concern for some time. No tangible change in the sector can happen until and unless the GOP finds a method of addressing the issue of creation and clearing of circular debt rather than simply booking it under PHPL.

Another important point for the GOP to consider in its IA is to introduce a requirement for mandatory public offering of the shares of the IPPs following certain number of years after either project award or COD. This would not only help reduce cartelisation risks but also allow the public to share the benefits of such projects and improve circulation of money into the economy. In effect, this would make the functioning and management of IPPs more transparency in the functioning of the IPPs as public listed companies are subject to more stringent corporate governance requirements.

The GOP should focus on improving transmission losses and increasing the overall efficiency of the sector. This requires technical re-evaluation of the system and to consider whether the national grid system is performing in the manner intended. Also, the GOP should focus on creating the electricity spot market as the regulatory framework exists. This too will foster competition and development of a more efficient system.

7.2. Negotiation with IPPs

As stated above, the GOP in August 2020 entered into several memoranda of understanding with IPPs with the hope of reducing the financial burden on the power sector. The entering into memoranda of understanding appears to be a positive approach though their net effect is yet to

be seen keeping in view these memoranda are subject to approvals by NEPRA, GOP and the IPPs. Any approval of the IPPs would be subject, of course, to the approval of their lenders as is typical in project finance transactions. To what extent international and local lenders have been involved in the entire process is not clear and their reaction is something yet to be seen.

However, what is worth noting is that the 2015 Power Policy accounts for the largest installed capacity of 8,253MW. It is also under this policy that most of the Chinese or CPEC projects have been established. It is not clear whether any of the IPPs from commissioned under the 2015 Power Policy have entered into a memorandum of understanding with the GOP's committee. It seems that the committee is still in talks with these IPPs. This may be crucial as projects established under the 2015 Power Policy have the most impact as their PPAs would remain in force for the longest term compared to the IPPs set up under other projects. No significant relief would follow unless the IPPs established under the 2015 Power Policy agreed to reduce tariffs or other charges.

7.3. Pakistan's dispute experience and investor confidence

Pakistan's experience with sophisticated, international commercial disputes has been poor, when its sole argument has been an allegation of corruption. These disputes have resulted in large financial penalties which have further worsened Pakistan's economic woes. International arbitral tribunals, who contractually will be competent to adjudge such disputes, have also showed willingness to disregard decisions of national courts concerning findings of corruption. Our disputes experience also shows that where we terminated contracts in the past in Karkey and Reqo Diq case, we did not only fail to substantiate any corruption allegations, but we even failed to place the burden on the other party to disprove the allegations. The arbitral tribunals, while electing to use a standard higher than normal balance of probabilities, went to state that we failed to prove our claims even on a balance of probabilities. The past decisions have also held that corruption allegations will need to be attributable to an individual party in order to be proven. This means that even if the favourable terms in a power policy were procured by a particular party, they cannot be held against other parties to which corruption is not attributable.

It should also be noted that the cost of these disputes has not only come in a monetary form, but also has impacted our reputation and harmed investor confidence. Power sector is an important source of FDI, and for future projects, investors and lenders will be wary of entering the market if they fear unilateral termination. It should also be kept in mind that a reason for providing favourable terms was to make our projects bankable in midst of competition regional economics, and instances of unilateral termination will further make it difficult to ensure our projects are bankable.

In this regard, GOP's attempt to negotiate and gain consent of IPPs to alter power purchase arrangements is a welcome step. While the MOUs entered are a preliminary arrangement which still require government and board approvals, it is recommended that GOP continues to follow this course and amicably reaches a fair and mutually beneficial outcome.

7.4. Power Policy

Pakistan has definitely had few power policies. What the GOP proposes to do with the sector is substantially different from the past power policies. In short, whether the GOP should develop a new power policy is something that should be seriously considered. A new power policy that does not address issues related to the state-owned utilities will bring about little tangible change.

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GLOSSARY OF TERMS

AEDB	Alternative Energy Development Board
BIT	Bilateral Investment Treaty
BOO	Build-Own-Operate
BOOT	Build-Own-Operate-Transfer
CAPEX	Capital expenditure
CoD	Commercial Operation Date
CPEC	China-Pakistan Economic Corridor
CPP	Capacity Purchase Price
CPPA	Central Power Purchasing Agency (Guarantee) Limited
Circular Debt	The amount of cash shortfall within the Central Power Purchasing Agency (CPPA), which it cannot pay to power supply companies
DISCO	Distribution and supply company
EBT	Energy Based Tariff
ECC	Economic Coordination Committee of the Federal Cabinet of GoP
ECL	Exit Control List of Pakistan
EPC	Engineering, procurement and construction
EPP	Energy Purchase Price
EUR or €	Euro currency
FIA	Federal Investigation Agency
GBP	British Pound Sterling
GENCO	Power generation company
GoP	Government of Pakistan
Hubco	Hub Power Company Limited
ICC	International Chamber of Commerce
ICSID	International Centre for Settlement of Investment Disputes
ICSID Convention	Convention on the Settlement of Investment Disputes between States and National of other States
IPP	Independent Power Producer
IPPA	Independent Power Producers Association
IRR	Internal Rate of Return
ISI	Inter-Services Intelligence Directorate
KAPCO	Kot Addu Power Company Limited
KIBOR	Karachi inter-bank official rate
KESC	Karachi Electricity Supply Corporation Limited
K-Electric	K-Electric Limited
LCIA	London Court of International Arbitration
LIBOR	London Inter-bank Offer Rate
LPS	Late Payment Surcharge
Market Operator Rules	National Electric Power Regulatory Authority (Market Operator Registration, Standards and Procedure) Rules, 2015
NEPRA Act	Regulation of Generation, Transmission and Distribution of

	Electric Power Act, 1997
NEPRA Amendment Act	Regulation of Generation, Transmission and Distribution of Electric Power (Amendment) Act, 2018 amending the NEPRA Act
MW	Mega Watt of electricity
NAB	National Accountability Bureau
NAO	National Accountability Ordinance, 1999
NEPRA	National Electric Power Regulatory Authority
NTDC	National Transmission and Dispatch Company Limited
O&M	Operations and maintenance
OGDCL	Oil & Gas Development Company Limited
PEDO	Pakhtunkhwa Energy Development Organization
PEPCO	Pakistan Electric Power Company Limited
PHPL	Power Holding Private Limited
PPDB	Punjab Power Development Board
PPIB	Private Power Infrastructure Board
PPP	Public private partnership
PSO	Pakistan State Oil Company Limited
RFO	Residual Fuel Oil
RLNG	Regasified Liquefied Natural Gas
RoE	Return on equity
RPP	Rental Power Projects
SECP	Securities & Exchange Commission of Pakistan
SPV	Project company incorporated as a special purpose vehicle
UNCITRAL	United Nations Commission on International Trade Law
USD or US$	United States Dollars
WAPDA	Water and Power Development Authority

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