



NATIONAL POWER PARKS MANAGEMENT COMPANY (PRIVATE) LIMITED

Ministry of Energy (Power Division), Government of Pakistan
Malik Plaza, 2nd Floor, 7-C/1, M.M. Alam Road, Gulberg III, Lahore

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May 24, 2019

No. NPPMCL- HBS/CEO/2019/-----13165

The Registrar
National Electric Power Regulatory Authority
NEPRA Tower, Ataturk Avenue (East) G-5/1
Islamabad

Subject: **MODIFICATION OF TARIFF DETERMINATION OF NATIONAL POWER PARKS MANAGEMENT COMPANY (PRIVATE) LIMITED FOR ITS 1230.54MW (GROSS) POWER PROJECT AT HAVELI BAHADUR SHAH DATED MAY 24, 2019 ("THE DETERMINATION")**

Dear Sir,

Reference is made to NEPRA's Tariff Determination in Case No. NEPRA/TRF-358/NPPMCL-2016 dated 09 August 2016 whereby the Authority had determined the Cost-plus Tariff of National Power Parks Management Company (Private) Limited (the "Company") for its 1230.54 MW (Gross) RLNG power plant located at Haveli Bahadur Shah, Jhang.

The Company hereby files petition for Modification of Tariff Determination under Section 7 and 31 of NEPRA Act and Rule 3(1) of the NEPRA (Tariff Standards & Procedure) Rules, 1998 and all enabling provisions of law for kind consideration and decision of the Authority.

Pay Order No.02444665 of Rs. 1,694,240/- against the fee for modification of Tariff Petition is attached herewith.

Regards,

Dhanpat Kotak
Chief Executive Officer



BEFORE

THE NATIONAL ELECTRIC POWER REGULATORY AUTHORITY (NEPRA)

IN THE MATTER OF

TARIFF DETERMINATION IN CASE No. NEPRA/TRF-358/NPPMCL-2016 DATED 09 AUGUST 2016 FOR 1230.54 MW (GROSS) POWER PROJECT AT HAVELI BAHADUR SHAH, DIST. JHANG OF NATIONAL POWER PARKS MANAGEMENT COMPANY (PRIVATE) LIMITED

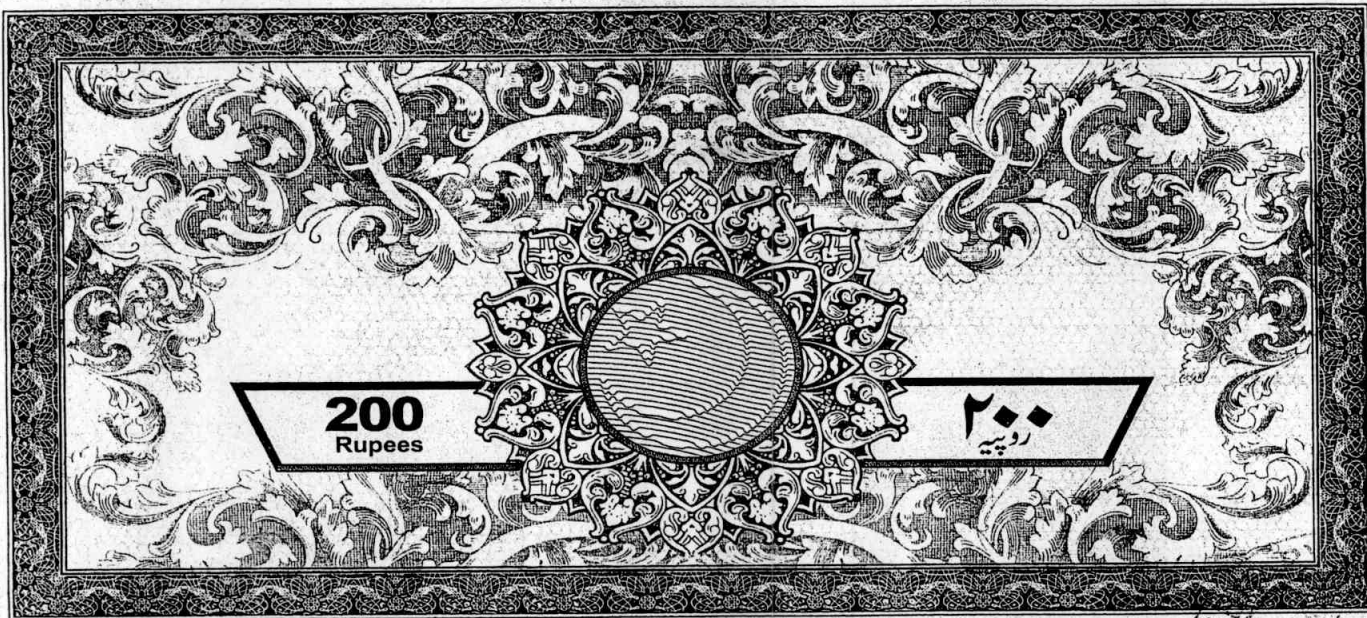
PETITION FOR MODIFICATION OF TARIFF DETERMINATION DATED 09 AUGUST 2016 UNDER SECTION 7 AND 31 OF THE NEPRA ACT AND RULE 3 OF THE NEPRA (TARIFF STANDARDS & PROCEDURE) RULES, 1998 AND ENABLING PROVISIONS OF LAW (REVIEW)

ON BEHALF OF

NATIONAL POWER PARKS MANAGEMENT COMPANY (PRIVATE) LIMITED
(NPPMCL)

DATED: MAY 24, 2019





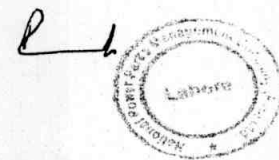
BEFORE THE NATIONAL ELECTRIC POWER REGULATOR
AUTHORITY (NEPRA)

AFFIDAVIT

I, Dhanpat Kotak s/o Bhagchand Kotak, having CNIC No. 43104-0578071-9, Chief Executive Officer of National Power Parks Management Company (Private) Limited (NPPMCL), hereby solemnly affirm and declare on oath that the contents of the accompanying application for modification of reference generation tariff for NPPMCL's 1230.45 MW (Gross at RSC) CCPP, Haveli Bahadur Shah, District Jhang dated May 24, 2019 including all attached documents in support are true and correct to the best of my knowledge and belief and nothing has been concealed.

DEPONENT

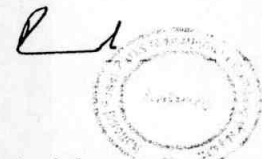
Dhanpat Kotak
CEO
National Power Parks Management
Company (Private) Limited
May 24, 2019



On oath the Deponent mentioned above
has identified on May 24, 2019.

DEPONENT

Dhanpat Kotak
CEO
National Power Parks Management
Company (Private) Limited



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PETITION FOR MODIFICATION OF TARIFF DETERMINATION UNDER SECTION 7 & 31 OF THE NEPRA ACT AND RULE 3 OF THE NEPRA (TARIFF STANDARDS & PROCEDURE) RULES, 1998, AND OTHER ENABLING PROVISIONS OF LAW

A. Petition for Modification of Tariff Determination

I. Summary and Background

1. National Power Parks Management Company (Private) Limited (hereinafter "**NPPMCL**" or the "**Petitioner**" or the "**Company**") is a private limited company, wholly owned by the Government of Pakistan ("**GoP**"), incorporated under Companies Ordinance 1984.
2. NPPMCL filed the cost-plus Reference Generation Tariff Petition, dated 22 April 2016, (hereinafter "**Tariff Petition**") for its 1230.54 MW (Gross) RLNG power plant located at Haveli Bahadur Shah, Jhang before National Electric Power Regulatory Authority (hereinafter "**NEPRA**" or the "**Authority**"). The Authority on 09 August 2016 has given its decision/determination (hereinafter "**Determination**") on the request of the Petitioner.
3. The GoP has decided to divest its stake in the Company for which the privatization process has been initiated by the Privatization Commission of Pakistan. Accordingly, the Company has been advised to file Petition for actualization/One-Time Adjustment of Tariff before the Authority. However, before filing the said Petition, the Company is of the view that certain cost components need to be modified so as to arrive at a just, fair and informed determination pursuant to One-Time Adjustment of Reference Tariff.
4. Accordingly, the Petitioner is filing this Petition for Modification of Reference Tariff (hereinafter "**Instant Petition**") under Section 7 and 31 of the NEPRA Act and Rule 3 of the NEPRA Tariff (Standards and Procedures) Rules 1998 (hereinafter "**Rules**") and other enabling provisions of the law.
5. The Petitioner, with the approval of its Board of Director (attached as per "**Annexure A**") through its authorized representative, is filing the Instant Petition for Modification on the basis of the grounds mentioned below. It is requested that Tariff Petition and Determination may kindly be read as an integral part of this Instant Petition.

The Instant Petition is being filed on the basis of *inter alia* discovery of new and important matters as detailed in the grounds below:

II. Grounds

a. Additional Costs due to increase in construction period

6. The construction period for the Complex was 27 months from the issuance of Notice to Proceed under the EPC Contract. Accordingly, the Authority has determined 27 months as construction period. Since the funds for construction of Complex were provided to NPPMCL under Public Sector Development Program (PSDP) as Cash Development Loan in October 2015, therefore, the Company issued Notice to Proceed to the EPC Contractor on 13 October 2015 to commence construction of the Complex.
7. The Complex achieved its Commercial Operations on 09 May 2018 instead of the contractual completion date of 09 January 2018 i.e. with the delay of four (04) months. As a result of such delay, the following additional expenditures have been incurred during the extended period:
 - 7.1. Interest During Construction (IDC) amounting to Rs. 1,398 million (**Annexure-B**)
 - 7.2. Forced financing facility created on account of encashment of SBLC by SNGPL to adjust the cost of Take or Pay gas under Gas Supply Agreement amounting to Rs. 6,224.20 million (**Annexure-C**)
 - 7.3. Insurance premium amounting to Rs. 157.50 million (**Annexure-D**)
 - 7.4. Admin and related expenditures amounting to Rs. 66.25 million (**Annexure-D**)
 - 7.5. Commission on letter of credit amounting to Rs. 2.11 million (**Annexure-D**)
8. As a matter of fact, the completion time of 27 months is very aggressive and was fixed as an effort to address the dire shortage of electricity prevailing in the country at that time. A comparative table of completion period of some national and international IPPs is given below which shows that even the projects of lesser capacity than 1230.54 MW Haveli Bahadur Shah Power Project have been completed in longer periods:

Project Name	Net Capacity (MW)	Actual Completion Time (Months)
Orient	212.70	41
Halmore	209.00	38
Uch I	551.00	54
Guddu	747.00	54
SUGEN 1-3 (India)	1134.00	52
Dangjin 4 (South Korea)	890.00	36

9. In view of the above, it is requested that the additional expenditures as stated above along with ROE component for the delay period may kindly be allowed and the

completion time of 27 months may be modified to 31 months based on the actual completion period.

b. Pass-Through items

10. The Authority was pleased to determine that in case the Company is obligated to pay any duties and/or taxes, not being of refundable nature, the exact amount paid by the Company on these accounts shall be reimbursed on production of original receipts.
11. Accordingly, the Power Purchaser agreed in the Power Purchase Agreement that all the Pass-Through Items, as allowed by NEPRA vide its Determination Order in case No. NEPRA/TRF-358/NPPMCL-2016) dated 09 August 2016 shall be payable to the Company.
12. As a matter of fact, payments by the Company into the Workers' Welfare Fund and the Workers' Profit Participation Fund or Minimum Tax under section 113 of Income Tax Ordinance 2001, being not of refundable nature shall be Pass-Through. Although the Income Tax, Minimum Tax, Excise Duty or other Duties, Levies, Charges, Value Added Tax, Surcharge or other Governmental Impositions, Provincial Sales Tax, Worker's Welfare Fund, Worker's Profit Participation Fund etc. are Pass-Through under the Power Purchase Agreement, however, for the sake of clarity it is requested that the same may kindly be expressly stated in the Terms & Conditions (sub-clause (xv) of clause-VIII) of the Order part of the said Determination.

c. Reimbursement of Pass-Through items upon payment

13. The Authority in its Determination allowed all taxes and duties, not being refundable in nature, as a pass-through item subject to production of original receipts and spread over a period of twelve months.
14. By virtue of sub-clause (c) of clause 132 of Part I of Second Schedule of the Income tax Act, 2001, NPPMCL is not exempt from income tax being owned by Pakistan Development Fund Limited (PDFL) which is wholly owned and controlled by the Federal Government. Clause 132 (c) of Part I of Second Schedule of the Income tax Act, 2001, is reproduced for ease of reference:

"(132) Profits and gains derived by a taxpayer from an electric power generation project set up in Pakistan on or after the 1st day of July, 1988. The exemption under this clause shall apply to such project which is—
(a)

(b)

(c) *owned by a company fifty per cent of whose shares are not held by the Federal Government or Provincial Government or a 1 [Local Government] or which is not controlled by the Federal Government or a Provincial Government or a 2 [Local Government]."*

15. As a result of applicability of income tax, NPPMCL has to pay income tax/minimum tax in advance on estimated basis for every quarter in terms of Section 147 of the Income Tax Act, 2001. Under the current practice of the Power Purchaser, NPPMCL gets reimbursement once it has filed its annual tax return and the annual tax liability for respective financial year has been assessed. Meaning thereby, the reimbursement of income tax paid in advance would start after a period of eighteen (18) months.
16. As a matter of fact, the Authority, in its Determination dated August 09, 2016, allowed return on equity (ROE) at 16% which is the income of the Company on which income tax is to be calculated and paid. Accordingly, when income tax is estimated for the purposes of payment of advance tax under Section 147 *ibid*, a significant amount is required to discharge the tax liability whereas, the reimbursement starts only after eighteen (18) months and the Power Purchaser does not pay the Capacity charges on timely basis therefore, Company has to arrange the hefty amount of cashflows on quarterly basis in order to discharge its advance tax liability. Currently the cost of funds arranged by the Company for payment of advance income tax, is not provided in the Determination dated August 09, 2016.
17. Therefore, Authority is requested to allow reimbursement of payment of above-mentioned Pass-Through items upon submission of receipt of payment thereof by the Company. In the alternative, the cost of cash flow arrangement for the purposes of payment of above-mentioned Pass-Through items may kindly be allowed.

d. Working Capital for 105 days cash cycle

18. The Authority in its Determination has allowed cost of working capital on the basis of 60 days cash cycle while taking into account normal payment cycle of the PPA applicable to energy payments receivable from the Power Purchaser subject to adjustment at the time of COD on the basis of actual payment terms finalized in the GSA and PPA.
19. Notwithstanding the payment of markup on delayed payments, the Company, under section 9.10 of PPA, is obligated to keep the plant available for despatch until the amounts, that have remained unpaid beyond their respective due dates, are equal to or exceed the Maximum Amount i.e. two months receivables comprising of Capacity payment, excluding ROE component, and Energy payment. The total

period during which the Company is obligated to keep its plant available for despatch by the Power Purchaser comes out to be 105 days (**Annexure E**).

20. The working capital cost based on 60 days cash cycle is not enough to cover the cash requirement of the Company in order to continue its operations until the overdue amount reaches to the Maximum Amount.
21. Keeping in view of the above, the Authority is requested to allow working capital on the basis of 105 days in order to enable the Company to fulfill its contractual obligation of keeping the plant available for despatch by the Power Purchaser in terms of Section 9.10 of PPA.

e. Free start-ups costs

22. According to Power Purchaser it is a market practice that certain number of start-ups are provided in the PPA, the cost whereof will not be reimbursed by the Power Purchaser. Accordingly, 33 such start-ups per annum (15 hot, 15 warm and 3 cold) have been included in the PPA. The cost of such start-ups has not been reflected in the Determination dated August 09, 2016.
23. In addition to above, occasionally the Complex is forced to shut down due to SNGPL's unscheduled outage, reduction of pressure/line-pack in SNGPL's system etc. On resumption of normal condition, the Complex undergoes start-up, the cost whereof has not been reflected in the Determination dated August 09, 2016.
24. The cost of such start-ups includes fuel, back feed electricity and variable operations and maintenance costs. Since these amounts are of significant nature and in the absence of any reimbursement mechanism will directly impact ROE component.

The cost of one (01) start-up of different types agreed with Power Purchaser is given below:

Type of Start	Reference single GT start-up charges (PKR)	Reference half Complex start-up charges (1 GT x ST) (PKR)	Reference Complex start-up charges (2 GT x ST) (PKR)
Hot Start (Gas)	800,000.00	1,441,202	2,802,942
Hot Start (HSD)		2,897,052	5,911,574
Warm Start (Gas)	1,000,000.00	3,614,472	7,584,135
Warm Start (HSD)		8,615,105	18,491,290
Cold Start (Gas)	1,200,000.00	4,097,421	8,646,622
Cold Start (HSD)		9,885,784	21,286,783

25. Therefore, Authority is requested to provide the cost of above stated start-ups in the tariff. In the alternative, the same may be made part of Pass-Through items. It is

further requested that while allowing so, the fuel cost of said start-ups may also be indexed with fuel prices and exchange rate parity.

f. Import of back-feed electricity:

26. Under the PPA, the Company is entitled to following Scheduled and Maintenance Outages in the relevant Agreement Year during which the Power Purchaser continues to pay Capacity charges as per the Prevailing Tested Capacity:
 - i) thirteen (13) Days per Gas Turbine or Steam Turbine Unit of Scheduled Outage; and
 - ii) three hundred eighty-nine (389) hours of Forced Outage and Partial Forced Outage.
27. Occasionally the Complex is forced to shut down due to SNGPL's unscheduled outage, reduction of pressure/line-pack in SNGPL's system etc. in addition to this sometimes during low system demand, the System Operator does not give despatch and keeps the Plant on standby mode. Accordingly, the Company is required to import back-feed electricity for running its auxiliaries during said periods.
28. Since impact of cost of import of back feed electricity is significant, hence, the Authority is requested, to consider and allow the cost of back feed electricity as Pass Through items as per actual basis.

g. Cost of Island mode Operations

29. The Power Purchaser under the PPA agreed with the Company that incase of any interruption/problem in NPCC system the Complex shall withstand a full load rejection (steam turbine trip, one Gas Turbine in island mode other may trip or at Full Speed No Load). The Gas Turbines shall be re-synchronized within one (1) hour provided that the reason for the load rejection has been removed. However, if the system is not stabilized, the company may shutdown the machine operating at island mode. In such case, the agreed cost of one (1) hour shall be borne by the Power Purchaser.
30. The Authority is requested, for the sake of clarity, the same may kindly be expressly stated in the Order part of the said Determination.

h. Spares Inventory

31. For allowing the maximum spares inventory in para 11.8 of the Determination dated August 09, 2016, the Authority relied upon the Regulatory Commission in the

neighboring country established benchmark of 4% of capital cost as maximum spares inventory for combined cycle power projects. Accordingly, the Authority adopted the same benchmark and allowed the maximum spares inventory of US\$ 22.59 million for a similar project namely Bhikki.

32. While allowing the cost of spares inventory of Haveli Bahadur Shah (HBS) Plant, the Authority straight away applied the amount that it had determined for the Bhikki Project and did not take into account the specific capital cost of HBS Plant pursuant to the benchmark of neighboring country adopted by the Authority.
33. Furthermore, it is noted that although the Authority has adopted neighboring country established benchmark of 4% of capital cost but instead of taking into account the capital cost, the Authority took the EPC Cost for the purposes of said benchmark.
34. It is significant to note that capital costs are the amounts spent to acquire or significantly improve the capacity or capabilities of a long-term asset and as such are the one-time set-up costs of a plant or project comprising of the costs associated with purchase of assets such as land, equipment, other assets to improve the useful life of project, cost of debt, duties, taxes, cess, fee, buildings, constructions and equipment etc. In other words, all costs which are not recurring operational/running costs are capital costs.

As such the capital cost of HBS Plant comes out to USD 794.336 million, the detailed whereof is tabulated below:

Sr. No	Description	USD Million
1	EPC Cost – Offshore	471.057
2	EPC Cost- Onshore	118.393
3	Items not covered in EPC scope excluding BOP spares	19.887
4	Non-EPC cost	54.355
5	Custom Duties & Cess	28.499
6	Gas pipeline Cost	28.000
7	Financing fee and Charges	19.101
8	Interest during construction	55.044
Total		794.336

35. In terms of neighboring country established benchmark of 4% of capital cost duly adopted by the Authority and the cost of spares inventory for HBS Plant comes out to be USD 31.773 million.

36. In addition to the LTSA spares inventory, Company had also requested for allowing USD 6.00 million for spares as recommended by EPC Contractor for balance of plant (BOP spares). Subsequent to the Determination, the Company entered into Operation and Maintenance Agreement with M/s SEPCOIII Electric Power Construction Corporation for the operation and maintenance of the Complex whereby the O&M Contractor was obligated to procure and provide the recommended spare parts amounting to USD 5.926 million. In its Determination dated August 09, 2016, the Authority allowed only USD 22.59 million for spares inventory (LTSA Spares inventory and BOP spares).
37. Keeping in view the above submissions, latest technology of the HBS Plant and highest availability factor among the power producers in the country, it is imperative that sufficient spares inventory (LTSA Initial Spare Parts, EPC Balance of Plant parts (BOP) and Recommended Spare Parts) is maintained at plant site in order to avoid any delay in procurement of spares. It is therefore, requested that, considering the capital costs as USD 794.336 million for the purposes of the benchmark adopted by the Authority, an amount of USD 31.773 million may be allowed for sufficient Spares Inventory.

i. Operations and maintenance costs (O&M and LTSA)

Variable and Fixed O&M

38. The Authority allowed LTSA and O&M costs in its Determination dated August 09, 2016 on provisional basis which will be actualized at the time of COD on the basis of respective signed agreements.
39. LTSA and O&M contracts were awarded to lowest bidders through International Competitive Bidding process for a period of twelve years (12). The Petitioner would like to highlight that the O&M and LTSA Agreements are for a period of twelve (12) years only, possibility cannot be ruled out that the prices contracted for variable and fixed O&M components at present, may significantly increase after completion of twelve (12) years on account of performance profile of the units in actual as well as the overall business environment / competition prevailing in the market by then.
40. The Authority is requested to safeguard the Company from possible future increase in the variable and fixed LTSA and O&M prices hence, instead of actualizing the cost on the basis of signed O&M and LTSA agreements, the same may be benched marked on the basis of average of operations and maintenance costs allowed to other IPPs.

j. Testing and commissioning cost

41. Through its Petition, the Company requested the Authority to approve USD 24.651 million on account of testing and commissioning cost against which the Authority approved only USD 11.043 million.
42. The Authority in its Determination dated August 09, 2016, decided that pre & post synchronization tests on HSD shall not be required therefore, the cost of HSD for such testing was not allowed. In addition to this the Authority also did not allow other costs requested by the Company. The Authority only allowed USD 9.555 million for testing and commissioning on RLNG and USD 1.49 million for fixed LTSA and fixed O&M cost as against the claimed amount of USD 9.93 million for RLNG and USD 2.55 million for fixed LTSA and fixed O&M cost.
43. Later on, vide Determination dated October 24, 2018, in suo moto proceeding initiated by the Authority, modified its earlier decision as to the non-requirement of pre and post synchronization tests on HSD and allowed the post synchronization testing and commissioning on HSD.
44. Since, NEPRA has allowed HSD as backup fuel. Therefore, to perform reliable and efficient operations, the complex was required to be tested on HSD, Accordingly, NPPMCL also carried out tests such as full speed no load (FSNL), 1st ramping up to FSNL, check-up at FSNL, fuel change over from HSD to RLNG and vice versa at different loads (online and offline), 1st normal shut-down and back to FSNL etc. in order to ensure the reliable operations thereof. In addition to this, the Complex operated on Part Loads during such tests for extended period for which the cost could not be recovered. For carrying out these tests, an amount of USD1.92 million on HSD fuel were spent.
45. Since, the cost of HSD fuel for Testing and Commissioning was not allowed by the Authority in its Determination dated August 09, 2016 and the tests on HSD were carried out being essential for ensuring the reliability of the Gas Turbines and the Complex therefore, the Company had to incur that cost from its working capital facility.
46. As a matter of fact, the billing cycles under the PPA and GSA are not back to back aligned therefore, the Company had to arrange funds for fuel (RLNG & HSD) payments, the cost of such funds was not provided in the Determination dated August 09, 2016.
47. In view of above, it is requested that since, the HSD is the back-up fuel and keeping in view the plant's life of thirty (30) years it was essential that the reliability of operations on HSD should be thoroughly tested therefore, actual cost incurred for

tests on HSD including incidental costs such as fixed LTSA cost, fixed O&M cost and the cost of funds to bridge the gap of billing cycles between PPA & GSA during the period of testing and commissioning amounting to USD 17.88 million be allowed.

k. CPP component at HSD fuel

48. The Petitioner would like to submit before the Authority that the Capacity Purchase Price ("CPP") and variable O&M components of the Tariff on HSD fuel was mistakenly petitioned and accordingly determined based on the Net Output of RLNG fuel i.e. 1,207.90 MW instead the Net Output of HSD fuel i.e. 1046.00 MW. Given the materiality of the outcome of this error, the Petitioner hereby requests the Authority to kindly consider and allow the CPP and variable O&M components for HSD fuel tariff based on the computations utilizing Net HSD Output of 1046.00 MW.
49. The Authority is requested to positively consider and incorporate the information submitted through this Instant Petition as an integral part of the Tariff Petition and determine the tariff components accordingly the relevant tables in reference tariff Determination dated August 09, 2016, may kindly be updated/modified as per Tariff Table attached as **Annexure-F**. Summary of Tariff is given Below:

Description	Determined	Based on HSD capacity of 1046.00 MW
Energy Charge (Rs./kWh):		
Fuel cost component	7.9715	7.9715
Variable O&M	0.4540	0.4039
Total	8.4255	8.3754
Capacity Charge (Rs./kW/hour):		
Fixed O&M (Local)	0.0616	0.0711
Fixed O&M (Foreign)	0.1369	0.1581
Cost of working capital	0.0954	0.1081
Insurance	0.0606	0.0700
Return on Equity	0.5710	0.6594
Debt servicing (1-10 years only)	0.9193	1.0616
Total Capacity Charges 1-10 years	1.8448	2.1284
Total Capacity Charges 11-30 years	0.9255	1.0668
Levelized tariff (Rs./kWh)	10.0829	10.2871
Levelized tariff (Cents/kWh)	9.6027	9.7972

I. Adjustment due to variation in net efficiency

50. The petitioner in its petition for reference tariff requested for allowing all correction/adjustments based on tests to be carried out at COD. However, the Determination dated August 09, 2016 is silent on the point. It is pertinent to point out

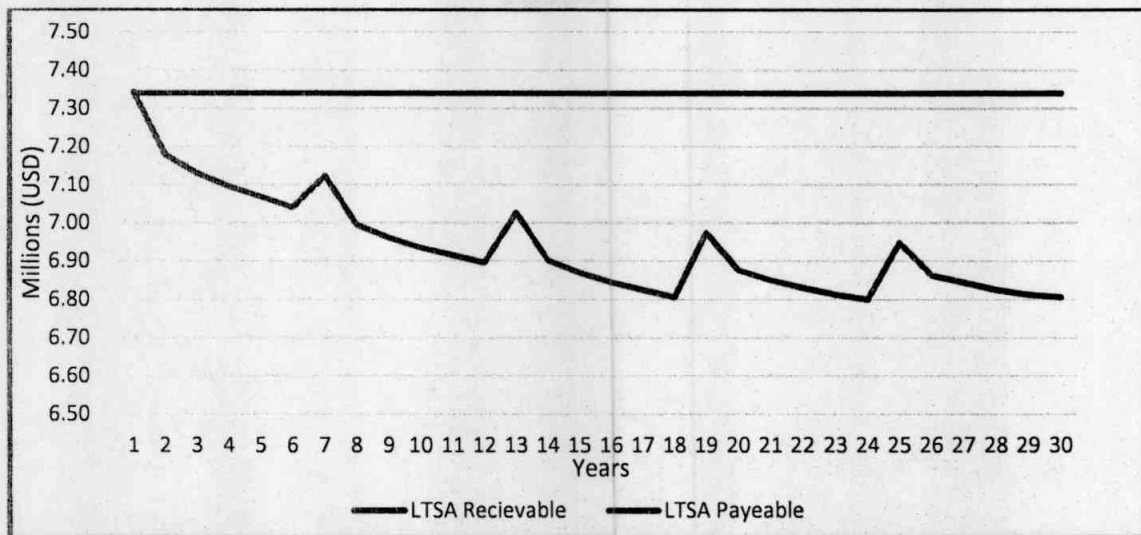
that another IPP namely UCH II was allowed following correction/adjustments by the Authority vide its decision dated October 16, 2009.

Sr. No.	Description	Percentage
a	Recoverable and non-recoverable adjustments	0.508%
b	Blow down adjustment	0.18%
c	Misc. adjustment	0.10%
d	Temperature adjustment	0.11%
e	Total adjustment (a+b+c+d)	0.898%

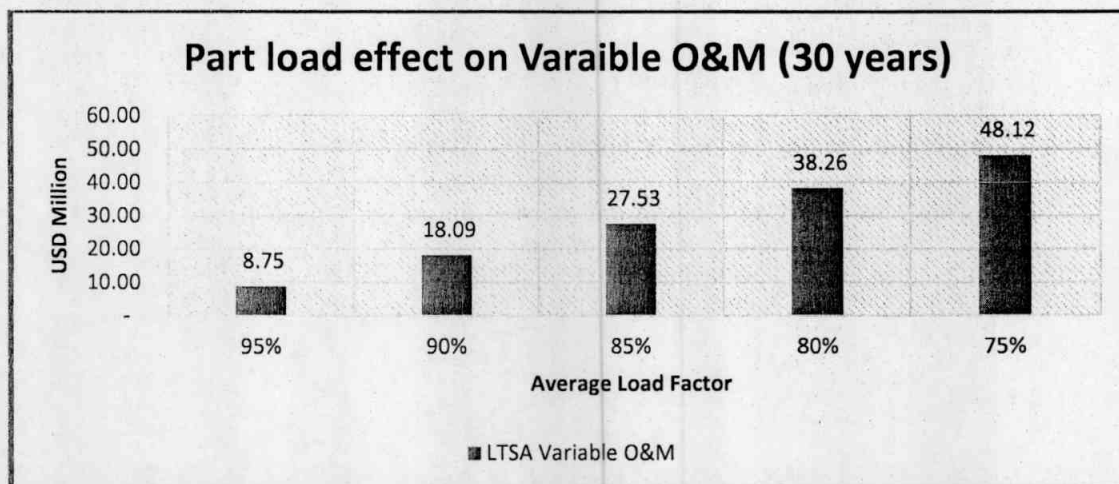
51. Accordingly, the Power Purchaser agreed in the Power Purchase Agreement that the thermal efficiencies established by the EPC contractor at COD on both fuels will be adjusted on account of similar correction factors subject to approval of the Authority.
52. In view of above, the authority is requested to allow same percentages of adjustment/correction factors as it has already allowed in case of UCH II vide its determination dated October 16, 2009.

m. Output degradation and part load adjustment on Variable O&M Component

53. The Variable O&M cost comprises LTSA and O&M operator fees denominated in foreign currency. The Variable O&M cost component in the Tariff Petition has been computed based on net output of 1207.9 MW as a static number. However, annual output degradation is expected to gradually reduce the net output of the plant over the tariff control period. As a natural consequence, the actual variable costs are bound to be higher than the respective Variable O&M amounts to be recovered under the Tariff, thus exposing the Petitioner to a continuing loss. The estimated loss over the Control Period is USD 7.34 million.
54. In view of this submission, the Authority is requested to allow output degradation factor application to the Variable O&M Cost components.



55. As per Tariff Determination of NPPMCL, part load correction factor on Variable O&M Component is not allowed by Authority and variable cost of LTSA is subject to actualization based on the signed agreement. The Petitioner has entered into the LTSA with GT OEM i.e. General Electric (GE) wherein the variable fee to the LTSA Contractor is based on the Factored Fired Hours (FFH) of the Gas Turbines and the recovery under Tariff against the same is through kWh generation. In case, the Power Plant is despatched on the part load operation during operational phase by Power Purchaser, Company will incur losses under the LTSA payments payable to the LTSA Contractor as FFH of Gas Turbines remains same even when Gas Turbines are operated on the part load.
56. Therefore, the Petitioner requests the Authority to reconsider the part load effect to be applied on the Variable O&M Component. The estimated part load effect on LTSA variable O&M Component at different plant load factors is presented below:



n. Insurance Cost During Operations

57. The Authority allowed maximum of 1% of the EPC cost as Insurance cost to the Company in its Determination August 09, 2016. Previously, Authority allowed 1.35% of the EPC cost to other Power Projects i.e. Halmore Power, SECL etc.
58. NPPMCL opted for an advanced technology in the procurement of the Plant and with aggressive negotiations achieved lowest per MW EPC cost which is USD 0.488 Million per MW as compared to other Power Projects where EPC cost was around USD 1 Million per MW. The comparative table of per MW EPC costs of different IPPs, taken from their respective tariff Determinations is given below:

Power Projects	EPC Cost (Thousand US\$ per MW)
Guddu	836
Uch- II	987
Halmore	824
Fauji Dharki	929
HBS	488

59. The Company being a government owned entity is legally bound to obtain operational phase insurances from National Insurance Company Limited ("NICL"). Accordingly, the Company approached NICL for obtaining operational phase insurances from the first year of operations. NICL quoted USD 8.368 million (1.40% of EPC Cost) as premium for first year operational phase insurances however, subsequently it informed the Company that the re-insurance market for Operations All Risk/Property Damage could not be arranged hence, issued an NOC to the Company for obtaining the said insurance on its own. Resultantly, the Company conducted a procurement process under PPRA Rules and obtained the said insurance from the lowest evaluated bidder at the cost of USD 6.25 million (1.10% of EPC Cost).
60. Likewise, in order to obtain insurances for second year of operations, the Company approached NICL. As a result of competitive bidding process conducted by NICL for said purpose, NICL has achieved an amount of USD 8.5 million (1.45% of EPC Cost)
61. It is evident that even after running three processes of competitive bidding for the first and second year operational phase insurances, lowest price obtained is more than the cap of 1% of EPC cost as determined by the Authority.

62. Capping the insurance costs at 1% of the EPC cost would amount to undue penalizing of the Company for setting up a power project with highest efficiency at very economical EPC cost.
63. Accordingly, it is requested that the Petitioner may be allowed the actual cost of insurance premium paid during operational period or in the alternative, the cap of 1% EPC cost may kindly be enhanced to at least 2.00% of the EPC cost.

o. Tariff for simple cycle operations on RLNG & HSD

64. In its Determination dated August 09, 2016, the Authority determined that the simple cycle tariff on unit basis on RLNG fuel shall only be applicable during the availability of Gas Turbines for simple cycle operations for 8-9 months before the COD of the Complex on the combined cycle operation.
65. The System Operator vide its letter No.134-35/GM(SO)NPCC/Manager P.C dated 02-01-2019 highlighted that it is difficult to manage the generation loss (800MW approx.) in case of sudden outage of Steam Turbine of HBS Plant as the Gas Turbines also have to be shut off because of non-provision of Open Cycle Tariff due to which forced load shedding has to be carried out till such time a contingency reserve is brought on bar. The Power Purchaser vide its letter No. DGM(C/M(R&G)/1402-04 dated 18.01.2019 sought comments of the Company on the proposal of System Operator. The Company informed that the Complex is capable to operate on simple cycle mode therefore, in order to support the System Operator, simple cycle operation can be undertaken subject to permission and award of simple cycle tariff by the Authority. It is significant to note that the commissioning tests under Power Purchase Agreement including Heat Rate and Capacity (RLNG fuel only) were carried out on simple cycle mode which were duly certified by the Independent Engineer and witnessed by Power Purchaser.
66. In view of the stability of the National Grid, requirement of System Operator appears to be justified because in the absence of permission to operate the plant in simple cycle mode the complete Complex (1200MW approx.) has to be shut down due to unavailability of the Steam Turbine (400MW approx.) on account of outages which results in sudden loss of 800 MW from the System. Even otherwise in simple cycle operations the heat rate of HBS Plant is better than many older plants and as such would be above them in the Economic Despatch Order.
67. In view of the above, it is requested that simple cycle operations of HBS Plant on both the fuels may kindly be allowed and the tariff therefor be determined. Summary of the proposed tariff is given below whereas the detailed tariff tables are placed at **Annexure G & H.**

Proposed levelized tariff for Simple Cycle Operations (Rs per KWh)	RLNG	HSD
Fuel cost component	6.7810	11.8345
Variable O&M	0.4946	0.6176
Total energy purchase price	7.2756	12.4521
Fixed O&M (Local)	0.0978	0.1631
Fixed O&M (Foreign)	0.2175	0.3627
Cost of working capital	0.1487	0.1653
Insurance	0.0963	0.1607
Return on Equity	0.9071	1.5126
Debt service cost – repayment	0.5713	0.6351
Debt service cost – interest	0.4635	0.4231
Capacity charge @ 92%	2.7199	3.7202
Total tariff	9.9955	16.1723

p. Land Cost

68. In addition to the land allowed by the Authority in its Determination dated August 09, 2016 for the purposes of project and site housing complex, the Company had to acquire additional land of 2.6 acres of land for the purpose of patrolling road for security around the Complex and site housing. The requirement of patrolling road for security was raised by the provincial security institute (Special Protection Unit/SPU) deputed by the Government for the security of the project site and the foreigner working over there.
69. Further the relevant local Government department has also demanded that the use of land under project needs to be changed from agriculture to industrial hence, advised the Company to pay the conversion fee in terms of relevant provisions of Punjab Land Use (Classification, Reclassification and Redevelopment) Rules, 2009. In this regard the Company is in receipt of challan for conversion fee amounting Rs. 13.07 million which is under process for payment purposes. In addition to this the Company will also have to pay the conversion fee for change of land use from agriculture use to housing for the site housing complex for which the challan has not yet been received.
70. In view of above, it is requested that the cost of 2.6 acres of land acquired for patrolling road for security and the conversion fee to be deposited by the Company may be allowed as per actual.

q. Escrow account

71. The Authority allowed cost of one-month (01) consumption of LNG at 100% load to be placed in an Escrow Account, as security deposit, amounting to USD 36.844 million with a condition that the interest income on Escrow Account would be credited to the power purchaser through adjustment against the outstanding payments.
72. As a matter of fact, the rate of RLNG is linked with Brent price therefore, on account of any variation in Brent's price as well as USD exchange rate, the rate of RLNG increases. Accordingly, the Gas Supplier (SNGPL) demands for topping up of escrow account in terms of clause 8.3 of GSA.
73. As per Section 8.3 of Gas Supply Agreement (GSA) the security deposit/Deposit Value is equal to the current RLNG price inclusive of applicable taxes.
74. In view of above, it is requested that the applicable taxes may kindly be included in the amount to be placed in escrow account as security deposit. It is further requested that the amount to be kept in escrow account may also be indexed with RLNG price and USD exchange rate parity.

r. Site Housing Complex

75. The Authority allowed the amount of USD 11.738 million, with maximum cap subject to adjustment on actual at COD, for construction of site housing complex including auditorium. The Company has hired the services of Engineering Consultants for survey, design and construction supervision. Accordingly, the Consultant has conducted the requisite surveys and provided the detailed design of the site housing complex which is under review of the Company. After approval of the design the Company shall initiate the process under PPRA Rules for procuring the services of construction contractor on BOQ basis. It is estimated that the construction of site housing complex shall be completed in a period of twenty-four (24) months from filing of this petition therefore, it is requested that the Authority may kindly defer the adjustment of approved amount at COD till completion of site housing complex and allow USD exchange rate parity prevailing at the time of completion of site housing complex.

s. Sharing of Savings on Premium

76. The authority had allowed in the Determination that in case the project is financed through foreign financing or mix of local and foreign financing LIBOR + a premium of 4.5% shall be allowed for calculation of interest on the foreign financing portion

and saving, if any, in the allowed premium shall be shared between the power purchaser and the power producer in the ratio of 60:40.

77. As a matter of fact, the project has been funded through Local Debt financing only, therefore, for the sake of clarity it is requested that sharing on saving of premium on Local Debt financing in the ratio of 60:40 may kindly be expressly stated in the Terms & Conditions (sub-clause (v) of clause-VIII) of the Order part of the said Determination.

t. Privatization of the Project

78. NEPRA in the Determination had allowed following components in case of foreign debt financing:

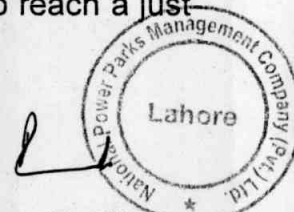
- a) Financial Fees and Charges
- b) Sinosure fee/ECA exposure fee/credit insurance fee
- c) LIBOR + a premium of 4.5%

79. Since, the Project was funded by GOP through PDFL and no foreign debt was taken till COD but pursuant to the decision of Government of Pakistan to privatize the Project, therefore, the authority is requested to allow the above-mentioned components in case of privatization of the Project where the prospective buyer may bring in foreign debt financing/mix of foreign and local financing to replace the existing local debt provided by GOP/ Financial Institutions.

B. Prayer / Request

In view of the above submissions, it is respectfully prayed that while accepting this Petition for Modification of Tariff Determination, the learned Authority may kindly review its Determination in the manner and to the extent detailed in this Instant Petition above. Any other relief may also kindly be granted.

NPPMCL shall be please to provide any additional documents and information, clarification or explanation that may be required by the Authority in order to reach a just and equitable decision.



Petitioner
National Power Parks Management Company (Private) Limited
Through its Chief Executive Officer
Mr. Dhanpat Kotak

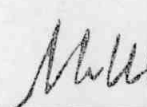


National Power Parks Management Company (Private) Limited
Ministry of Energy (Power Division), Government of Pakistan
Malik Plaza, 2nd Floor, 7-C-1 Gulberg III, Lahore

Annex - A

Extract of the Resolution passed by the Board of Directors of
National Power Parks Management Company (Private)
Limited on 30th April 2019

- a) *Resolved That, "the CEO be and is hereby permitted to sign and file Modification Tariff Petitions with NEPRA in respect of 1230 MW Combined Cycle Power Plant Haveli Bahadur Shah, Jhang, Pakistan".*
- b) *Further Resolved That, "the CEO or CFO or CLO be and is hereby authorized to review, execute, submit and deliver any related documentation required by NEPRA, inter alia, any consents, contract, document, power of attorney, affidavits, statements, letters, forms, applications, deeds, undertakings, approvals, memoranda, amendments, communications, notices, certificates, request and any other instruments of any nature whatsoever or CEO may authorize any other officer of the Company to do so".*
- c) *Further Resolved That, "the CEO or CFO or CLO be and is hereby authorized to pay necessary fees, represent and respond on behalf of the Company, in the public hearings, to all of NEPRA's queries, case officers, stakeholders and do attend pre and post hearing meetings, do all such acts, matters and things as may be necessary for carrying out the purposes aforesaid and give full effect to the above-said; and CEO may delegate all or any of the above powers in respect of the foregoing to any other officials of the Company or any consultant/legal advisor as deemed appropriate and do all necessary things for the issuance of tariff for the Projects".*


COMPANY SECRETARY

May 24, 2019

NPPMCL/CS/2019/13160



National Power Parks Management Company (Private) Limited

Calculations of IDC for extended period

Annex-B

From 10-Jan-18 to 09-May-18

1230MW CCPP Haveli Bahadur Shah

PKR Million

Date	Loan amount Rs.	Net Amount Outstanding	Mark Up Rate (3M Kibor+3%)	Daily Mark Up Rs.	Accumulated Mark Up Rs.
10-Jan-18		45,857	9.35%	11.48	11.48
11-Jan-18		45,857	9.35%	11.75	23.23
12-Jan-18		45,857	9.35%	11.75	34.98
13-Jan-18		45,857	9.35%	11.75	46.72
14-Jan-18		45,857	9.35%	11.75	58.47
15-Jan-18		45,857	9.35%	11.75	70.22
16-Jan-18		45,857	9.35%	11.75	81.96
17-Jan-18		45,857	9.35%	11.75	93.71
18-Jan-18		45,857	9.35%	11.75	105.46
19-Jan-18		45,857	9.35%	11.75	117.21
20-Jan-18		45,857	9.35%	11.75	128.95
21-Jan-18		45,857	9.35%	11.75	140.70
22-Jan-18		45,857	9.35%	11.75	152.45
23-Jan-18		45,857	9.35%	11.75	164.19
24-Jan-18		45,857	9.35%	11.75	175.94
25-Jan-18		45,857	9.35%	11.75	187.69
26-Jan-18		45,857	9.35%	11.75	199.43
27-Jan-18		45,857	9.35%	11.75	211.18
28-Jan-18		45,857	9.35%	11.75	222.93
29-Jan-18		45,857	9.35%	11.75	234.67
30-Jan-18		45,857	9.35%	11.75	246.42
31-Jan-18		45,857	9.35%	11.75	258.17
01-Feb-18		45,857	9.35%	11.75	269.92
02-Feb-18		45,857	9.35%	11.75	281.66
03-Feb-18		45,857	9.35%	11.75	293.41
04-Feb-18		45,857	9.35%	11.75	305.16
05-Feb-18		45,857	9.35%	11.75	316.90
06-Feb-18		45,857	9.35%	11.75	328.65
07-Feb-18		45,857	9.35%	11.75	340.40
08-Feb-18		45,857	9.35%	11.75	352.14
09-Feb-18		45,857	9.35%	11.75	363.89
10-Feb-18		45,857	9.35%	11.75	375.64
11-Feb-18		45,857	9.35%	11.75	387.38
12-Feb-18		45,857	9.35%	11.75	399.13
13-Feb-18		45,857	9.35%	11.75	410.88
14-Feb-18		45,857	9.35%	11.75	422.63
15-Feb-18		45,857	9.35%	11.75	434.37
16-Feb-18		45,857	9.35%	11.75	446.12
17-Feb-18		45,857	9.35%	11.75	457.87
18-Feb-18		45,857	9.35%	11.75	469.61
19-Feb-18		45,857	9.35%	11.75	481.36
20-Feb-18		45,857	9.35%	11.75	493.11

National Power Parks Management Company (Private) Limited

Calculations of IDC for extended period

Annex-B

From 10-Jan-18 to 09-May-18

1230MW CCPP Haveli Bahadur Shah

PKR Million

Date	Loan amount Rs.	Net Amount Outstanding	Mark Up Rate (3M Kibor+3%)	Daily Mark Up Rs.	Accumulated Mark Up Rs.
21-Feb-18		45,857	9.35%	11.75	504.85
22-Feb-18		45,857	9.35%	11.75	516.60
23-Feb-18		45,857	9.35%	11.75	528.35
24-Feb-18		45,857	9.35%	11.75	540.09
25-Feb-18		45,857	9.35%	11.75	551.84
26-Feb-18		45,857	9.35%	11.75	563.59
27-Feb-18		45,857	9.35%	11.75	575.34
28-Feb-18		45,857	9.35%	11.75	587.08
01-Mar-18		45,857	9.35%	11.75	598.83
02-Mar-18		45,857	9.35%	11.75	610.58
03-Mar-18		45,857	9.35%	11.75	622.32
04-Mar-18		45,857	9.35%	11.75	634.07
05-Mar-18		45,857	9.35%	11.75	645.82
06-Mar-18		45,857	9.35%	11.75	657.56
07-Mar-18		45,857	9.35%	11.75	669.31
08-Mar-18		45,857	9.35%	11.75	681.06
09-Mar-18		45,857	9.35%	11.75	692.81
10-Mar-18		45,857	9.35%	11.75	704.55
11-Mar-18		45,857	9.35%	11.75	716.30
12-Mar-18		45,857	9.35%	11.75	728.05
13-Mar-18		45,857	9.35%	11.75	739.79
14-Mar-18		45,857	9.35%	11.75	751.54
15-Mar-18		45,857	9.35%	11.75	763.29
16-Mar-18		45,857	9.35%	11.75	775.03
17-Mar-18		45,857	9.35%	11.75	786.78
18-Mar-18		45,857	9.35%	11.75	798.53
19-Mar-18		45,857	9.35%	11.75	810.27
20-Mar-18		45,857	9.35%	11.75	822.02
21-Mar-18		45,857	9.35%	11.75	833.77
22-Mar-18		45,857	9.35%	11.75	845.52
23-Mar-18		45,857	9.35%	11.75	857.26
24-Mar-18		45,857	9.35%	11.75	869.01
25-Mar-18		45,857	9.35%	11.75	880.76
26-Mar-18		45,857	9.35%	11.75	892.50
27-Mar-18		45,857	9.35%	11.75	904.25
28-Mar-18		45,857	9.35%	11.75	916.00
29-Mar-18		45,857	9.35%	11.75	927.74
30-Mar-18		45,857	9.35%	11.75	939.49
31-Mar-18		45,857	9.35%	11.75	951.24
01-Apr-18		45,857	9.35%	11.75	962.98
02-Apr-18		45,857	9.35%	11.75	974.73
03-Apr-18		45,857	9.35%	11.75	986.48

National Power Parks Management Company (Private) Limited

Calculations of IDC for extended period

Annex-B

From 10-Jan-18 to 09-May-18

1230MW CCPP Haveli Bahadur Shah

PKR Million

Date	Loan amount Rs.	Net Amount Outstanding	Mark Up Rate (3M Kibor+3%)	Daily Mark Up Rs.	Accumulated Mark Up Rs.
04-Apr-18		45,857	9.35%	11.75	998.23
05-Apr-18		45,857	9.35%	11.75	1,009.97
06-Apr-18		45,857	9.35%	11.75	1,021.72
07-Apr-18		45,857	9.35%	11.75	1,033.47
08-Apr-18		45,857	9.35%	11.75	1,045.21
09-Apr-18		45,857	9.35%	11.75	1,056.96
10-Apr-18		45,857	9.35%	11.75	1,068.71
11-Apr-18		45,857	9.35%	11.75	1,080.45
12-Apr-18		45,857	9.35%	11.75	1,092.20
13-Apr-18		45,857	9.35%	11.75	1,103.95
14-Apr-18		45,857	9.35%	11.75	1,115.69
15-Apr-18		45,857	9.35%	11.75	1,127.44
16-Apr-18		45,857	9.35%	11.75	1,139.19
17-Apr-18		45,857	9.35%	11.75	1,150.94
18-Apr-18		45,857	9.35%	11.75	1,162.68
19-Apr-18		45,857	9.35%	11.75	1,174.43
20-Apr-18		45,857	9.35%	11.75	1,186.18
21-Apr-18		45,857	9.35%	11.75	1,197.92
22-Apr-18		45,857	9.35%	11.75	1,209.67
23-Apr-18		45,857	9.35%	11.75	1,221.42
24-Apr-18		45,857	9.35%	11.75	1,233.16
25-Apr-18		45,857	9.35%	11.75	1,244.91
26-Apr-18		45,857	9.35%	11.75	1,256.66
27-Apr-18		45,857	9.35%	11.75	1,268.40
28-Apr-18		45,857	9.35%	11.75	1,280.15
29-Apr-18		45,857	9.35%	11.75	1,291.90
30-Apr-18		45,857	9.35%	11.75	1,303.65
01-May-18		45,857	9.35%	11.75	1,315.39
02-May-18		45,857	9.35%	11.75	1,327.14
03-May-18		45,857	9.35%	11.75	1,338.89
04-May-18		45,857	9.35%	11.75	1,350.63
05-May-18		45,857	9.35%	11.75	1,362.38
06-May-18		45,857	9.35%	11.75	1,374.13
07-May-18		45,857	9.35%	11.75	1,385.87
08-May-18		45,857	9.35%	11.75	1,397.62
TOTAL					1,397.62

Annex-C

DATED

11 SEPTEMBER 2018

TERM FINANCE AGREEMENT

BETWEEN

NATIONAL POWER PARKS MANAGEMENT COMPANY (PRIVATE) LIMITED
(AS COMPANY)

and

THE FINANCIAL INSTITUTIONS
(AS TERM FINANCE BANKS)

and

UNITED BANK LIMITED
(AS SBLC AGENT)

and

NATIONAL BANK OF PAKISTAN
(AS SECURITY TRUSTEE)

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ATTESTED
Chaudhary Z. Kshraf Advocate
Oath Commissioner Lahore



- (B) The Supplier encashed the SBLC for an amount of PKR 6,224,195,201 (Pakistan Rupees six billion, two hundred and twenty four million, one hundred and ninety five thousand two hundred and one) in June 2018 which amount was paid by the SBLC Participating Banks.
- (C) Under the SBLC Facility Agreement the Company is required to pay the SBLC Financiers all SBLC Claim Amounts.
- (D) In order to settle the amount called by the Supplier the Company has requested the Term Finance Banks to extend it a term loan of up to an amount of PKR 6,224,195,201 (Pakistan Rupees six billion, two hundred and twenty four million, one hundred and ninety five thousand two hundred and one) as a sub-limit of the SBLC Facility.
- (E) The Term Finance Banks have agreed to provide the Term Facility to the Company on the terms and subject to the conditions set forth in this Agreement.
- (F) The Agent Bank is entering into this Agreement as the agent of the Term Finance Banks.
- (G) The Security Trustee is entering into this Agreement as the security trustee of the Term Finance Banks.

NOW, THEREFORE, in view of the foregoing and in consideration of the mutual benefits to be derived and the representations and warranties, covenants and agreements contained herein and other good and valuable consideration, the sufficiency of which is hereby acknowledged and intending to be legally bound, the Parties hereby agree as follows:

1. DEFINITIONS AND INTERPRETATION

1.1 Definitions

All capitalised terms used in this Agreement (including the recitals) shall have the meanings given to them in the SBLC Facility Agreement and the following terms shall have the following meanings:

"Administrative Parties" means the SBLC Agent, and the Security Trustee and "Administrative Party" means any one of them;

"Agreement" means this Agreement together with the Schedules attached hereto;

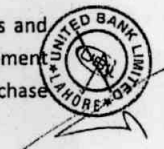
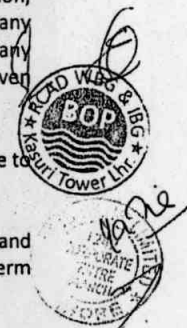
"Applicable Law" means any applicable law, statute, by-law, regulation, treaty, rule, order, determination, decree, code or directive, including any judicial or administrative order or judgment, legislation, statute, ordinance, code, order, decree, directive, judgment, decision, injunction, licence, permit, rule, regulation, and judicial interpretation thereof, and any interpretation of or determination in respect of any of the foregoing made or issued by any Competent Authority having jurisdiction over the matter in question and binding on a given person;

"Assets" means the assets described in the Memorandum of Purchase of Assets, from time to time;

"Availability Period" means the period commencing from the Facility Effective Date and ending on 12 September 2018 unless extended with the prior written consent of the Term Finance Banks;

"Base Rate" has the meaning given to that term in the Illustrative Payment Schedule;

"Capacity Payment Receivables" means all and each of the Company's rights, titles and interests, present and future, actual and contingent under the Power Purchase Agreement with respect to the payments under Article 9.1 read with Schedule 1 of the Power Purchase Agreement (as of the date hereof);



"Company" has the meaning given to that term in the recitals to this Agreement;

"Competent Authority" means any national, supranational, regional or local government or governmental, administrative, fiscal, judicial, or government-owned body, department, commission, authority, tribunal, agency or entity, or central bank (or any person, whether or not government owned and howsoever constituted or called, that exercises the functions of a central bank) or other entity of any kind or other person exercising executive, legislative, judicial, regulatory or administrative functions;

"Conditions Precedent" means conditions precedent to the Facility Effective Date by the Company, as provided in Section Error! Reference source not found. (Conditions Precedent) and Schedule B (Conditions Precedent);

"Disbursement" means a disbursement of the Sale Price or any part thereof in accordance with this Agreement.

"Disbursement Account" means the account titled Disbursement Account maintained with United Bank Limited bearing account No. 252118153.

"Disbursement Notice" means the notice issued by the SBLC Agent to the Term Finance Banks, pursuant to the provisions of Section 2.3 (Disbursements and Disbursement Methodology), in the form and substance attached at Schedule D (Form of Disbursement Notice

"Disbursement Request" means a duly completed request in writing made by the Company to the SBLC Agent, in terms of this Agreement for a Disbursement by the Term Finance Banks, in the form and substance attached at Schedule C (Form of Disbursement Request)

"Due Amounts" has the meaning given to it in Section 7.3.2;

"Event of Default" means an event of default specified as such event or circumstance set out in Section 6 (Events of Default & Enforcement) and any Potential Event of Default;

"Facility Effective Date" means the date not later than thirty (30) days beginning from the date of signing of this Agreement, on which date the Conditions Precedent must stand satisfied, waived or deferred in accordance with the provisions hereof; provided, however, that the Term Finance Banks may, at their sole and absolute discretion, decide to extend such date beyond the thirty (30) day period for such period as they may deem fit;

"Illustrative Payment Schedule" means the schedule of Purchase Price Payments attached as Schedule E (Illustrative Payment Schedule), for illustrative purposes only, based on the Disbursement of the entire Sale Price;

"Instrument" means any contract, agreement, indenture, deed, mortgage, document, assurance or writing (whether by formal agreement, letter or otherwise) under which any obligation is evidenced, assumed or undertaken or any Encumbrance (or right or interest therein) is granted or perfected or purported to be granted or perfected;

"KIBOR" is defined in the Illustrative Payment Schedule;

"Letter of Lien and Set Off (Disbursement Account and Lien Account)" means the letter of lien and set off with respect to the Disbursement Account and the Lien Account executed by the Company in favour of the Security Trustee on or about the date hereof;

"Lien Account" means the Company's savings account maintained with the National Bank of Pakistan, corporate branch, super market F-6, Islamabad and bearing No. 3052617343.

"Majority Term Finance Banks" means the Term Finance Banks representing 75% (seventy five percent) or more of the outstanding and utilised Sale Price;



"Mark-up" means mark-up payable on the Sale Price, by 12 March 2019 to be calculated at the Mark-up Rate in accordance with the Illustrative Payment Schedule and on the basis of actual number of days elapsed in a year of three hundred sixty five (365) days (or three hundred and sixty six (366) in the case of a leap year) on the Outstanding Amount;

"Mark-up Rate" has the meaning given to that term in the Illustrative Payment Schedule;

"Material Adverse Change" means that there has, in the opinion of the SBLC Agent, occurred or could reasonably be expected to occur an effect, event, matter or circumstance or a change in the circumstances which materially and adversely impairs:

- (a) the business, operations, property, assets, present or future condition (financial or otherwise) or prospects of the Company;
- (b) the ability (financial or otherwise) of the Company, to perform and observe any of its obligations under this Agreement including to construct and operate the HBS Project as required thereunder;
- (c) the financial, technical, commercial, legal and environmental feasibility of the HBS Project to be undertaken by the Company; and,
- (d) the legality, validity or enforceability of, or the rights or remedies of any SBLC Working Capital Bank under, the SBLC Documents or any Encumbrance created thereunder;

"Outstanding Amount" means, at any time, the Sale Price or part thereof utilised and outstanding against the Company;

"Payment Notice" has the meaning given to it in Section 7.3.2;

"PKR" or "Pakistani Rupees" means the lawful currency of the Islamic Republic of Pakistan;

"Person" means any firm, company, corporation, government, state or agency or a state, regulatory body, any association or partnership (whether or not having separate legal personality) or any individual, or any combination of two or more of the foregoing.

"Potential Event of Default" means any event or circumstances which would with the lapse of time, the expiry of a grace period, the giving of notice, the making of any determination or any combination of any of the foregoing in the SBLC Agent's opinion is expected to become an Event of Default;

"Properties" means, at any time and with respect to the HBS Project, all or any part of the Company's business, undertakings, properties, assets, revenues (including any right to receive revenues) and uncalled capital, wherever situated;

"Purchase Price" has the meaning given to that term in Section 2.2 (Sale Price and Purchase Price);

"Purchase Price Payment" means, on the Repayment Date, the amount of the Purchase Price (inclusive of the Mark-up) to be paid by the Company to the Term Finance Banks calculated in accordance with Illustrative Payment Schedule and in terms of this Agreement;

"Repayment Date" means, in respect of the Purchase Price Payment, the date specified in the Repayment Schedule;

"Repayment Schedule" means the repayment schedules, as adjusted in terms of this Agreement which shall be prepared by the SBLC Agent at the end of each calendar quarter after the Facility Effective Date based on the Illustrative Payment Schedule after adjusting for the amount of the Disbursement and Mark-up (such schedules being an integral part of this



Agreement) and copies whereof will be sent by the SBLC Agent to each Term Finance Banks and the Company;

"Sale Price" means the amount of the Term Facility not exceeding, at any one point in time, PKR 6,224,195,201 (Pakistan Rupees six billion, two hundred and twenty four million, one hundred and ninety five thousand two hundred and one);

"SBLC Facility Agreement" means the standby letter of credit facility agreement dated 10 July 2017 (as extended from time to time) in relation to the HBS Project;

"Security Trustee" has the meaning given to it in the preamble;

"Taxes" include all present and future taxes (other than income taxes payable by the Term Finance Banks and other similar taxes payable by them on their income), duties, levies, imposts, deductions, octroi, excise duty, sales tax, registration charges, and any other charges and withholdings whatsoever, together with any interest and penalties payable in connection with any failure to pay or delay in paying any of the above;

"Term Facility" means the financing facility to be provided by the Term Finance Banks to the Company for meeting its payment obligations under the SBLC Facility Agreement up to the amount of the Sale Price in accordance with the terms and conditions contained in this Agreement;

1.2 Interpretation

Section 1.2 (Interpretation) of the SBLC Facility Agreement shall apply mutatis mutandis to the interpretation of this Agreement.

2. SALE PRICE AND PURCHASE PRICE

2.1 Term Facility

2.1.1. The Term Finance Banks (severally and not jointly), in reliance upon the representations and warranties of the Company under the SBLC Documents and in accordance with this Agreement, grant to the Company the Term Facility on mark-up basis.

2.1.2. If the Facility Effective Date is not achieved within thirty (30) days from the date of signing of this Agreement, the Term Facility shall stand expired, unless such expiry date is extended in writing by the SBLC Agent (based on a unanimous vote of the Term Finance Banks).

2.2 Sale Price and Purchase Price

2.2.1 During the Availability Period and in accordance with and subject to the terms and conditions of this Agreement, the Company agrees to sell and the Term Finance Banks agree to purchase the Assets from the Company for an amount which shall not exceed the Sale Price and which sum shall be disbursed to the Company in accordance with the Disbursement Request and subject to the terms and conditions of this Agreement.

The Company confirms that immediately upon sale of the Assets to the Term Finance Banks it shall purchase the same from the Term Finance Banks at the purchase price of PKR 6,995,824,880 (Pakistani Rupees six billion, nine hundred and ninety five, eight hundred and twenty four thousand, eight hundred and eighty only), payable to the Term Finance Banks, from time to time, subject to and in accordance with the provisions of this Agreement (the "Purchase Price").

2.2.2 The Sale Price shall be contributed, severally and not jointly, in the following aggregate amounts:



NAME OF TERM FINANCE BANK	CONTRIBUTION TO SALE PRICE	PERCENTAGE
United Bank Limited	PKR 1,852,632,030	29.765%
National Bank of Pakistan	PKR 2,065,036,293	33.097%
The Bank of Punjab	PKR 453,864,847	7.292%
Habib Bank Limited	PKR 1,852,632,030	29.765%
Total Sale Price	PKR 6,224,195,201	100%

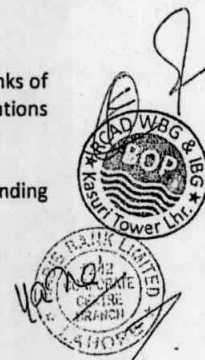
Disbursement of the entire Sale Price shall be pro rata each Term Finance Bank's aggregate contribution to the Sale Price.

2.3 Disbursement and Disbursement Methodology

2.3.1. Subject to strict compliance by the Company with the terms and conditions set out in this Agreement the Company shall be entitled to issue the Disbursement Request to the SBLC Agent and the Term Finance Banks shall only make Disbursements subject to the satisfaction of the conditions set out below. The Company is entitled to issue only one Disbursement Request which shall be for the entire Sale Price and such Disbursement Request may only be issued during the Availability Period.

- (a) The Company is not permitted to issue the Disbursement Request prior to the Facility Effective Date.
- (b) The Facility Effective Date shall occur upon the issuance of written confirmation by the SBLC Agent (on receipt of confirmation from each Term Finance Bank) that it has received documentary evidence in sufficient copies for each Term Finance Bank and in form and substance satisfactory to the SBLC Agent and each Term Finance Bank of:
 - (i) the documents and other evidences listed in Schedule B (Conditions Precedent) and each action or specified condition in Schedule B (Conditions Precedent) having been undertaken or fulfilled to the SBLC Agent's and each Term Finance Bank's satisfaction;
- (c) the representations and warranties in the SBLC Documents to be made and to be repeated on those dates are true and correct in all respects and will be true and correct in all respects immediately after the Disbursement; and
- (d) no Event of Default is subsisting or shall occur as a result of the Disbursement;
- (e) the Disbursement shall not result in any breach by any of the Term Finance Banks of the relevant Applicable Laws, including, without limitation, the Prudential Regulations or other directives, rules, regulations and circulars of SBP;
- (f) the Disbursement may only be requested to fund the SBLC Claim Amount outstanding on the date the Disbursement Request is issued;
- (g) The Company has opened the Disbursement Account; and,
- (h) any other condition that the Term Finance Banks may require.

provided, however, that the Term Finance Banks (acting unanimously) shall be permitted to waive or defer any of the requirements of this Section 2.1.1.



2.3.2. the following conditions shall be satisfied within the time periods provided:

- (i) an appropriate undertaking is made and the GOP's acknowledgement of receipt of the same is received as provided in Article 11 of the Implementation Agreement within thirty (30) days from the Facility Effective Date; and,
- (j) the charge registration certificate for the Letter of Lien and Set Off (Disbursement Account and Lien Account) is obtained from the Securities and Exchange Commission of Pakistan and provided to the SBLC Agent within twenty five days from the Facility Effective Date.

2.3.3. On satisfaction of the conditions set out in 2.1.1 above, the SBLC Agent shall prepare and deliver by fax / courier to each Term Finance Bank, a Disbursement Notice setting out the amount to be disbursed by each Term Finance Bank and attaching the documentation stated above.

2.3.4. Within two (2) Business Days of receiving the Disbursement Notice, each Term Finance Bank shall be required to provide written confirmation of their acceptance of the Disbursement Notice to the SBLC Agent and each Term Finance Bank shall contribute its respective share of the Disbursement as specified in the Disbursement Notice through RTGS or by issuing a cheque or a pay order in favour of the Company for the full amount of such Term Finance Bank's share of the Disbursement and delivering the same to the SBLC Agent prior to 3 p.m. on the requested disbursement date (set out in the Disbursement Request), who shall deposit the same in the Disbursement Account on the requested disbursement date. The Company irrevocably and unconditionally instructs the Term Finance Banks to transfer the Sale Price credited to the Disbursement Account to the SBLC Account immediately.

2.4 Purchase Price Payment

2.4.1 The Company hereby agrees and confirms that it shall pay the Purchase Price Payment in accordance with instructions of the SBLC Agent, on (or before) the relevant Repayment Date as a set out in the Repayment Schedule, which may be modified and adjusted by the Term Finance Banks through the SBLC Agent in accordance with this Agreement. The Company shall pay the Purchase Price Payment to each of the Term Finance Banks through the SBLC Agent. The Company shall be entitled to a payment bonus in accordance with the prompt payment bonus formula as set out in the Illustrative Payment Schedule if a Purchase Price Payment is paid by the Company on or before the relevant Repayment Date.

2.4.2 The Purchase Price Payment stated in the Illustrative Payment Schedule has been calculated on the assumption that the full amount of the Sale Price is Disbursed immediately upon the commencement of the Availability Period and the full amount of the Sale Price will remain outstanding until the Repayment Date set out in the Illustrative Payment Schedule. If for any reason whatsoever the full amount of the Sale Price is not Disbursed by the Company, the Purchase Price Payment as set out in the Illustrative Payment Schedule shall be accordingly amended by the Term Finance Banks through the SBLC Agent. Subject to manifest error, determination of the same by the Term Finance Banks through the SBLC Agent shall be final and binding on the Parties.

2.4.3 If at any time while any part of the Purchase Price is outstanding under this Agreement, in the opinion of the Majority Term Finance Banks, the Base Rate is discontinued or ceases to be a realistic representation of the prevailing cost of funds in the money markets as per the SBP guidelines, then the Majority Term Finance Banks shall substitute the same with a relevant rate of a substantially similar nature or provide an alternate basis to be used as the Base Rate and the Illustrative Payment Schedule shall be revised accordingly, upon the Term Finance Banks, issuing a notice to the Company for such revision (the "Notice"). In the event the Company and the Majority Term Finance Banks are unable to agree upon

alternate rate / basis for determining the Base Rate within a period of sixty (60) days from the receipt of the Notice by the Company, the Company shall mandatorily prepay the entire outstanding amount in relation to the Term Facility, along with the Mark-up accrued thereon and all other charges, costs and expenses that may be payable by the Company, but without any penalty, premium or other compensation by reason of such prepayment being due, on the earlier of (i) the next instalment payment date; or (ii) within a period of ninety (90) days from the date of receipt of the said Notice. In the event the Company and the Majority Term Finance Banks agree upon an alternate rate / basis for determining the Base Rate, such Base Rate shall be effective and binding on all Parties from the date of such agreement of the alternate rate.

- 2.4.4 All payments by the Company under this Agreement (including liquidated damages, fees and the Purchase Price) to the Term Finance Banks and all other SBLC Secured Obligations, are unconditional and it shall make all payments under this Agreement without any set-off or counterclaim and free and clear of, and without any deduction or withholding for or on account of, any Taxes, duties, costs or expenses. In the event, that any Term Finance Bank is required to pay any Taxes, withholding obligations, duties or other charges of whatever nature levied by any authority in respect of the Term Facility, the SBLC Documents and or any security created by the Company to secure the Term Facility, then on the discretion of the relevant SBLC Working Capital Bank either (i) the sum due from the Company in respect of such payment shall be increased to the extent necessary to ensure that after the making of such deduction or withholding, the Term Finance Bank or Parties receives, on the respective date, a net sum equal to the sum that it/they would have received had no such deduction or withholding been required to be made; or (ii) the Company shall reimburse the whole amount of Tax so paid by such Term Finance Bank, within a period of seven (7) business days of receiving a demand from such Term Finance Bank in this respect. In the event, the Company is required by any applicable law, to deduct any Tax from payment on behalf of any of the Term Finance Banks, the Company shall provide to the SBLC Agent original copies of the Tax challans, duly made out in the name of such Party as applicable, in respect of the Tax so deducted within a period of fourteen (14) days from the date on which such deduction is made by the Company.
- 2.4.5 The Company acknowledges that any amounts standing to the credit of the Lien Account may be utilised by the Term Finance Banks to discharge any outstanding amounts owed to the Term Finance Banks under this Agreement. Accordingly, the SBLC Agent (acting on behalf of the Term Finance Banks) may instruct the Security Trustee to transfer amounts standing to the credit of the Lien Account to the SBLC Agent in favour of the Term Finance Banks.

2.5 Obligations Several

The obligations of each Term Finance Banks under this Agreement are several. No Term Finance Bank shall be responsible for the obligations of the other Term Finance Banks. The Company's obligations towards the Term Finance Banks are, however, given to each of the Term Finance Banks as separate and independent rights.

2.6 Assets

The Parties agree that notwithstanding the sale of the Assets to the Term Finance Banks by the Company and their purchase back by the Company, the Term Finance Banks shall not be responsible in any way to the Company or to any other person in respect of the title, specifications, merchantability, fitness for purpose, condition, quality, quantity or efficacy of the Assets. The Company hereby undertakes to indemnify and keep the Term Finance Banks indemnified at all times until the SBLC Termination Date against any and all actions, proceedings, liabilities, claims, losses, damages, costs and expenses in relation to or arising out of the sale of the Assets which may be instituted against or suffered or incurred by the Term Finance Banks.

2.7 Non-Business Days

Whenever any payment under this Agreement shall become due by the Company on a day that is not a Business Day, the due date thereof shall be the immediately preceding Business Day other than for a payment which is due on demand which shall be paid by the Company on the immediately succeeding Business Day.

3. NOT USED.

4. DEFAULT PAYMENTS

4.1 Duties and fees

The Company shall pay and indemnify each Term Finance Bank against any cost, loss or liability that Term Finance Bank incurs in relation to all stamp duty, registration and other similar Taxes payable in respect of any SBLC Document.

4.2 Default Payments

4.2.1 Where any amount is required to be paid by the Company under this Agreement at a specified time on a specified date and is not paid, or any amount is payable by the Company under this Agreement within a specified period after the receipt of a demand from a Term Finance Bank and is not so paid, the Company shall be liable to pay to the relevant Term Finance Bank by way of liquidated damages (and not by way of interest, profit or mark-up) an additional amount calculated at the rate of 1.5% (one and a half percent) per annum on such amount above the Mark-up Rate from the due date for such payment to the date of actual payment or recovery thereof, together with the costs and expenses incurred by the Term Finance Banks or any of them or (as the case may be) in effecting recovery thereof.

4.2.2 For the purposes of this Section, the Company acknowledges and admits that:

- (a) delinquent payment of the instalment of the Purchase Price or any other amount due under this Agreement is a material breach of this Agreement which results in serious losses to the Term Finance Banks and therefore must be compensated;
- (b) such liquidated damages are not by way of a fine or penalty and will constitute loss suffered by the Term Finance Banks as a consequence of delinquent payments by the Company;
- (c) given the nature of the banking business it is possible to predetermine the loss that may be suffered by the Term Finance Banks as a consequence of delinquent payments by the Company; and,
- (d) the liquidated damages provided herein are reasonable compensation and are without prejudice to the other remedies that may be available to the Term Finance Banks.

4.3 Distribution by SBLC Agent

All payments under this Agreement shall be made by the Company (including the Purchase Price Payments) to the SBLC Agent or in accordance with the instructions of the SBLC Agent for onward distribution to all the Term Finance Banks on the basis of the share of the Term Finance Banks in the outstanding Purchase Price under this Agreement. For the avoidance of doubt, the Company's obligation towards the Term Finance Banks shall be discharged once each Term Finance Bank receives its share of payment.

5. ACCESS TO BOOKS AND RECORDS

The Company irrevocably grants each of the Term Finance Banks access to review the books and records of the Disbursement Account and the Lien Account and irrevocably waives any right of confidentiality which may exist in respect of such books and records to the extent legally permissible and necessary to allow disclosure of such books and records to each of the Term Finance Banks. The Company shall authorise and instruct the relevant financial institution to give unrestricted access to the Term Finance Banks to review such books and records held by such financial institution.

6. EVENTS OF DEFAULT & ENFORCEMENT

6.1 Events of Default

Each of the following events shall constitute an Event of Default:

6.1.1 at any time, failure by the Company:

- (a) to pay the Purchase Price in accordance with the provisions of this Agreement (whether on the respective Repayment Date, pursuant to a demand or otherwise); or
- (b) to pay any amounts pursuant to, in connection with, in relation to or under the SBLC Documents at the time and in the manner specified, including without limitation amounts due under Section 2.4 (*Purchase Price Payment*) and Section 4 (*Default Payments*);

6.1.2 failure of the Company to comply with any covenant, undertaking, obligation or agreement made by the Company in or pursuant to this Agreement and any other SBLC Documents;

6.1.3 any condition or requirement of a notice by the SBLC Working Capital Bank waiving or deferring the compliance of any Condition Precedent not being completely complied with, fulfilled, performed or satisfied;

6.1.4 any representation, warranty or statement made or repeated by the Company through its directors or authorized officers under in any Working Capital Document, including, without limitation, this Agreement, is or proves to be incorrect, misleading or otherwise inaccurate in any respect when made or repeated;

6.1.5 the Company:

- (a) is unable generally to pay its debts as they fall due;
- (b) commences negotiations with any one or more of its creditors with a view to an readjustment or rescheduling or deferral of its Indebtedness for Borrowed Money or any part thereof as result of non-payment to such creditor;
- (c) makes or takes any proceeding or other material step with a view to, a readjustment or a rescheduling or a deferral of its Indebtedness for Borrowed Money or any part thereof as result of non-payment to such creditor;
- (d) proposes or makes a general assignment for the benefit of, or an arrangement or a composition with, its creditors or any group or class thereof;
- (e) declares or agrees any moratorium on the payment of all or any part of its Indebtedness for Borrowed Money; or,
- (f) files a petition for suspension of payments or other relief of debtors or for bankruptcy or is declared bankrupt;

6.1.6 the Company or any of its, officers, shareholders or directors or the Sponsor takes any corporate action for its suspension of payments, a moratorium of any



Indebtedness for Borrowed Money, liquidation, winding up, dissolution, administration, insolvency, bankruptcy, insolvent re-organisation or termination of the whole or any material part of its business or for the appointment of a liquidator, assignee, receiver, administrator, provisional manager, administrative receiver, trustee or similar officer for the Company or of all or any material part of its properties;

- 6.1.7 any attachment (whether in aid of execution or otherwise) is made of any of the properties of the Company which results in a Material Adverse Change;
- 6.1.8 an order is passed against the Company for its involuntary reorganisation, arrangement, adjustment or composition, or appointing a receiver, liquidator, assignee, custodian of the Company or of any substantial part of its properties, or ordering the winding-up or liquidation of the Company's affairs and such order is not vacated within forty five (45) days of being passed;
- 6.1.9 at any time any provision of any the SBLC Documents is or becomes for any reason, void, voidable, invalid or unenforceable or is or becomes unlawful for the counter-parties to such documents (other than the Company) to perform or comply with any or all of the obligations assumed by it in such Instrument to which it is a party or all or any of the obligations assumed by such counter-party are not, or cease to be, legal, valid, binding and enforceable obligations of such counter-party;
- 6.1.10 the Company does not pay any of its Indebtedness for Borrowed Money when due or within any originally applicable grace period or stops or suspends or threatens to stop or suspend payment of any of its Indebtedness for Borrowed Money or any creditor of the Company becomes entitled to declare any Indebtedness for Borrowed Money of the Company due and payable prior to its specified maturity as a result of an event of default (however described);
- 6.1.11 any action or inaction of the Company that would result in any SBLC Working Capital Bank being in breach of the Prudential Regulations, unless appropriate waivers have been obtained from SBP and provided that a notice has been received from the respective SBLC Working Capital Bank stating the breach of the Prudential Regulations;
- 6.1.12 any of the Working Capital Security Documents fails to provide or ceases to be effective in granting to the Term Finance Banks, security in terms contemplated by the Working Capital Security Documents or ceases to be in full force and effect, terminated, suspended, repudiated, revoked or the validity or applicability thereof to the obligations created hereunder or any part thereof is disaffirmed by or on behalf of the Company;
- 6.1.13 any statement, representation or warranty made by the Company in or pursuant to the SBLC Documents or any statement, representation or warranty made by the Company in any notice, certificate or statement referred to or delivered thereunder is, becomes, or proves to have been incorrect in any respect at any time;
- 6.1.14 in the reasonable opinion of the Majority Term Finance Banks, the occurrence of any Material Adverse Change;
- 6.1.15 an event of default of the SBLC Facility Agreement;

6.2 Remedies upon an Event of Default

Clause 6.2.1 of the SBLC Facility Agreement shall apply mutatis mutandis herein. In addition the Term Finance Banks (acting through the Security Trustee) may also:



- (a) if not already done so, by notice to the Company declare the Sale Price as cancelled and the contribution of each SBLC Working Capital Bank shall stand reduced to zero and no Disbursement or Disbursement Request shall be permitted;
- (b) by notice to the Company declare that the Company is no longer permitted to make any withdrawals from the Disbursement Account and Lien Account;

7. RELATIONSHIP WITH SBLC FACILITY AGREEMENT

- 7.1 Clauses 7 (Representations and Warranties), 8 (Undertakings), 9 (Indemnity), 11 (Sell Down) including Schedule 6, 13 (Change to Administrative Parties), 15 (Governing Law and Jurisdiction), 16 (Notices), 17 (Severability), 18 (No Prejudice), 19 (Successors and Assigns), 20 (Stamp Duty), 21 (Good Faith), 23 (Counterparts) of the SBLC Facility Agreement shall apply mutatis mutandis to this Agreement as if fully set out herein.
- 7.2 This Agreement is designated as an SBLC Document and the Letter of Lien (Disbursement Account and Lien Account) is designated as a SBLC Security Document.
- 7.3 NPPMCL will inform the Term Finance Banks while Encumbering the Capacity Payment Receivables during the term of this Agreement, and the facility secured against that charge shall be utilized (fully or partially) to settle all outstanding amounts under this Term Finance Agreement.

up side!



SCHEDULE A – TERM FINANCE BANKS

1. **United Bank Limited**, a banking company incorporated under the laws of Pakistan having its place of business located at 6th Floor, Regional Office, United Bank Limited, 1-Main Gulberg, Jail Road, Lahore, Pakistan.
2. **National Bank of Pakistan**, a banking company incorporated under the laws of Pakistan having its place of business located at NBP Building, I.I Chundrigar Road, Karachi, Pakistan.
3. **Habib Bank Limited**, a banking company incorporated under the laws of Pakistan having its place of business located at HBL Plaza I.I. Chundrigar Road, Karachi, Pakistan.
4. **The Bank of Punjab**, a banking company incorporated under the laws of Pakistan having its place of business located at South 5-C, Lane 4, Khayaban-e-Shahbaz, Phase 6, DHA, Karachi, Pakistan.



up to

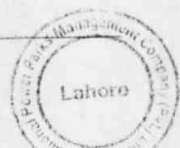


SCHEDULE B - CONDITIONS PRECEDENT

- a. A copy, certified as being true, complete and in full force and effect and as not having been amended or revoked in any respect by a duly authorized officer of the Company, of the board resolution of the directors of the Company made at a meeting of the directors of the Company duly called, approving the execution, delivery and performance of each of:
- I. This Agreement;
 - II. The Letter of Lien and Set-Off (Disbursement Account and Lien Account);
 - III. Undertaking to be submitted to PPIB under Article 11 of the Implementation Agreement; and,
 - IV. amendments to the SBLC Facility Agreement and the Security Trust Deed,
- and authorizing a named person or persons to execute and deliver each such Working Capital Document, any communications, notices, certificates, reports, requests, statements, certificates or other instruments to be delivered by the Company pursuant thereto.
- b. Execution and delivery of the documents set out in (a) above in form and substance satisfactory to the Term Finance Banks.
- c. Filing of the Letter of Lien and Set-Off (Disbursement Account and Lien Account) with the Securities and Exchange Commission of Pakistan and receipt of acknowledgment of filing from the SECP.
- d. Receipt of a legal opinion from the legal counsel of the Term Finance Banks, in form and substance acceptable to the Term Finance Banks.
- e. The Company has paid in full all stamp duties, levies, excise duties, and all other applicable duties and surcharges payable in connection with the Term Facility.



Handwritten signature/initials



SCHEDULE C- FORM OF DISBURSEMENT REQUEST

[ON THE LETTERHEAD OF THE COMPANY]

[Date]

[Disbursement request number]

To

United Bank Limited, as the SBLC Agent
UBL Building I.I. Chundrigar Road,
Karachi, Pakistan

Re: DISBURSEMENT REQUEST

Dear Sirs:

1. Please refer to the Term Finance Facility Agreement dated as of [●] 2018 (the "Agreement") entered into between the Company, the SBLC Agent, the Term Finance Banks, and the Security Trustee. Terms used in this Disbursement Request which are defined in the Agreement have, unless the context otherwise requires, the same meaning as in the Agreement.
2. Pursuant to the provisions of Section 2.3 (*Disbursements and Disbursement Methodology*) of the Agreement, we hereby notify the SBLC Agent that on the terms and conditions contained in the Agreement we are desirous of selling the Assets described below to the Term Finance Banks for the Sale Price mentioned below, and thereafter to immediately purchase the same from the Term Finance Banks for the Purchase Price to be determined by the SBLC Agent in accordance with the Agreement. Subject to confirmation by each Term Finance Bank, we request the SBLC Agent to make arrangements with the Term Finance Banks for disbursement of the Sale Price on the requested disbursement date specified below:

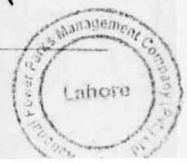
ASSETS:

AMOUNT OF DISBURSEMENT OF SALE PRICE:

REQUESTED DISBURSEMENT DATE:

PURPOSE: TO PAY THE SBLC CLAIM AMOUNT OUTSTANDING ON THE DATE HEREOF.

3. The Company hereby represents, confirms and covenants that:



- (i) no Default has occurred and is continuing or will occur under the SBLC as a result of the making of such Disbursement;
 - (ii) on the date of the Disbursement Request and the Disbursement Date, the representations which are due to be repeated by the Company under the SBLC Documents on such dates are and shall be true and correct by reference to the facts and circumstances subsisting at the time; and,
 - (iii) the Company has not incurred any loss or liability that has caused or is reasonably likely to cause a Material Adverse Change;
4. Certified true copies of all documentation to be provided by the Company with this Disbursement Request, in accordance with Schedule 2 (*Conditions Precedent*) of the Agreement, are attached herewith.
5. The provisions hereof shall *mutatis mutandis* form part of the Agreement, notwithstanding anything to the contrary.

Yours faithfully,

For and on behalf of

NATIONAL POWER PARKS MANAGEMENT COMPANY (PRIVATE) LIMITED

BY:

ITS:

WITNESSES:

1.....

Name:

Address:

NIC Number:

2.....

Name:

Address:

NIC Number



[Handwritten signature]



Schedule D- Form of Disbursement Notice

[ON THE LETTERHEAD OF THE SBLC AGENT]

[Date]

[Disbursement notice number]

To

.....
.....

Re: DISBURSEMENT NOTICE

Dear Sirs:

1. Please refer to the Term Finance Facility Agreement dated as of [●] 2018 entered into between the Company, the SBLC Agent, the Term Finance Banks and the Security Trustee (the "Agreement"). Terms used in this Disbursement Notice, which are defined in the Agreement have, unless the context otherwise requires, the same meaning as in the Agreement.
2. Pursuant to the provisions of Section 2.3 (*Disbursements and Disbursement Methodology*) of the Agreement, the SBLC Agent hereby gives notice that via Disbursement Request dated [●] the Company has notified the SBLC Agent that it is desirous of selling the Assets described below to the Term Finance Banks, and immediately thereafter to purchase the same from the Term Finance Banks for the Purchase Price to be determined by the SBLC Agent in accordance with the Agreement. Following particulars have been provided by the Company with regard to the proposed sale of Assets:

ASSETS:





AMOUNT OF DISBURSEMENT OF SALE PRICE:

REQUESTED DISBURSEMENT DATE:

PURPOSE: TO PAY THE SBLC CLAIM AMOUNT OUTSTANDING ON THE DATE HEREOF.

3. The Company has represented, confirmed and covenanted in its Disbursement Request dated _____ that:

upaid


Lahore

- (i) no Default has occurred and is continuing or will occur under the Finance Documents as a result of the making such Disbursement;
 - (ii) on both the date of the Disbursement Request and the Disbursement Date, the representations which are due to be repeated by the Company under the SBLC Documents on such dates are and shall be true and correct by reference to the facts and circumstances subsisting at the time; and,
 - (iii) the Company has not incurred any loss or liability that has caused or is reasonably likely to cause a Material Adverse Change;
4. Certified true copies of all documentation provided by the Company with the Disbursement Request dated _____, in accordance with Schedule B (*Conditions Precedent*) of the Agreement, are attached herewith.
5. Pursuant to the Section 2.3 (*Disbursements and Disbursement Methodology*) of the Agreement, the SBLC Agent hereby notifies that following shall be the amounts of Sale Price and Purchase Price applicable to each of the Term Finance Banks in respect of the requested Disbursement:

TERM FINANCE BANK	SALE PRICE	PURCHASE PRICE

6. Subject to the provisions of the Agreement, the Purchase Price shall be payable by the Company in accordance with the Repayment Schedule attached hereto and made an integral part hereof.
7. The Term Finance Banks are requested to provide confirmation of its acceptance to the provisions hereof by executing a copy of this Disbursement Notice in the space provided below and to return the same to the SBLC Agent within two (2) Business Days from the date hereof.

Yours sincerely,

Signed for and on behalf of
UNITED BANK LIMITED
As the SBLC Agent

[Handwritten signature]

[Circular stamp: ROAD WING & BGS, Kebab Tower Ltd, LAHORE]

[Circular stamp: UNITED BANK LIMITED, LAHORE]

[Circular stamp: UNITED BANK LIMITED, LAHORE]

WITNESSES:

1.

2.

Name:

Name:

Address:

Address:

NIC Number:

NIC Number:



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SCHEDULE E – ILLUSTRATIVE PAYMENT SCHEDULE

All figures in PKR

S. No	Repayment Date	Instalment Amount of Purchase Price Payable	No. of Days	Sale Price Component	Amount of Purchase Price Outstanding	Amount of Sale Price Outstanding	Mark-up Portion of Purchase Price
I	II	III	IV	V	VI	VII	VIII
-	12 Sep 2018					6,224,195,201	
	12 March 2019	6,995,824,880	181	6,224,195,201	0	0	771,629,679

- For the installment (principal and markup) due during the period commencing from the Facility Effective Date and terminating on 12 March 2019 the following Mark-up Rate shall apply:

Mark-up Rate means Base Rate plus 2% per annum with no floor or cap

where:

Base Rate:

Base Rate is defined as the three (3) month Karachi Inter Bank Offered Rate ("KIBOR"). KIBOR is defined as the average "ask side" Karachi Inter-Bank Offer Rate for Rupee deposits for a period equal to three (3) Months, which appears on the appropriate page of the Reuters service at or about 11:30 a.m. in Karachi on the last available Business Day, or in the event that the Reuter's service as published by the Financial Markets Association of Pakistan, or in the event Reuter and the Financial Markets Association, or any successor thereto, no longer provides such information, such other service as agreed to by the Term Finance Banks and the SBLC Agent that provides the average "ask side" Karachi Inter-Bank Offer Rate for Rupee deposits in the Karachi inter-bank market. The Base Rate will be set on the last working day before the first date of Disbursement and subsequently every quarter end (Base Rate Setting Date).

- Calculation of Prompt Payment Bonus

The Purchase Price will be subject to deduction of prompt payment bonus in accordance with the provisions of Section 2.4 of this Agreement.

Prompt Payment Bonus = Difference between (1) and (2) below:

(1) Amount of Purchase Price (as given in Column III above) due on the Repayment Date (as given in Column II)

(2) $[S \times R \times (N/365)] + \text{Sale Price Component as given in Column V}$

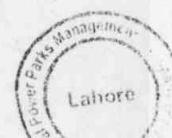
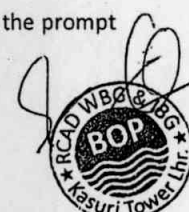
WHERE:

S = Amount mentioned in Column VII under Sale Price Outstanding as shown against 12 September 2018.

R = Mark-up Rate as defined above for each relevant payment period.

N = Number of days elapsed between the installment Repayment Date (on which the prompt payment bonus is to be calculated) and the date of Disbursement.

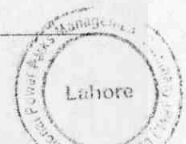
- Assumptions for Schedule E – Illustrative Payment Schedule:



- (a) The Purchase Price Payment stated in the Illustrative Payment Schedule and this Illustrative Payment Schedule has been calculated on the assumption that the full amount of the Sale Price is Disbursed immediately upon the commencement of the Availability Period and the full amount of the Sale Price will remain outstanding until 12 March 2019.
- (b) All calculations for the purposes of Illustrative Payment Schedule shall be on the basis of the daily outstanding Sale Price and 365 days in a year.
- (c) On each date for the setting or resetting of the Base Rate, the Term Facility Lender shall determine the Base Rate applicable to the relevant repayment period of three months.
- (d) Please note that this Illustrative Payment Schedule is made on the basis notional Mark-up Rate of 25%. If during the currency of the facility the Mark-up Rate breaches the notional cap of 25% the notional cap would be revised to reflect the Markup on the Mark-up Rate
- (e) The Purchase Price shall be due on the Repayment Date and shall be calculated on the cumulative Sale Price outstanding.



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

SIGNATURE PAGE

IN WITNESS WHEREOF the parties hereto have caused this Agreement to be executed by their duly authorised representatives as of the day, month and year first above written.

AS COMPANY

For and on behalf of NATIONAL POWER
PARKS MANAGEMENT COMPANY (PRIVATE)
LIMITED through its Authorised
Representative }

SIGNATURE

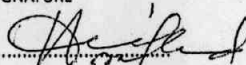


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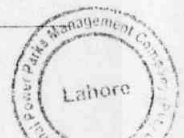
Name: Dhanpat Kotak
Designation: CEO

IN THE PRESENCE OF:
SIGNATURE OF WITNESSES

- 1- Name: Tariq Mahmood
Address: B-6, PAF, Ansari Chak
NIC No: 34801-6793055-3
- 2- Name: Muhammad Yaq
Address: 7-C-1, MMA Alam Road, Lahore
NIC No: 36502-4172932-7

SIGNATURE


.....

.....



As SBLC AGENT

For and on behalf of UNITED BANK LIMITED
through its Authorised Representative }

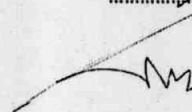
Name:

Designation:

SIGNATURE



FAROOQ A. KHAN
EVP/Regional Corporate Head-Control
UBL Corporate Banking Group
Lahore Region



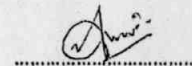
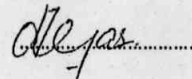
SHAHZAD AZAM
SVP / Unit Head
UBL Corporate Banking Group
LAHORE.

IN THE PRESENCE OF:

SIGNATURE OF WITNESSES

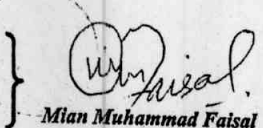
- 1- Name: Jawad Zafer
Address: Nadir Road 1 Lahore
NIC No: 35202-3009702-1
- 2- Name: Muhammad Amir
Address: F-11 Wahdat Colony, UBL.
NIC No: 35202-5786149-1

SIGNATURE

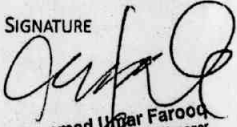


AS SECURITY TRUSTEE

For and on behalf of NATIONAL BANK OF
PAKISTAN through its Authorised
Representative


Mian Muhammad Faisal
VP/Unit Head
National Bank of Pakistan
Corporate & Investment Banking Centre, Lahore.

SIGNATURE


Muhammad Umar Farooq
VP/Relationship Manager
National Bank of Pakistan
Corporate Banking Centre, Lahore.

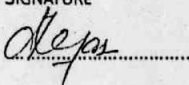
Name:

Designation:

IN THE PRESENCE OF:
SIGNATURE OF WITNESSES

- 1- Name: Jawad Zafer
Address: Nadir Mead I Lahore
NIC No: 35204-3009702-1
- 2- Name: Muhammad Ans
Address: FA-14, Wazirabad Colony, Lahore
NIC No: 35202-5596149-1

SIGNATURE







AS TERM FINANCE BANK

For and on behalf of UNITED BANK LIMITED
through its Authorised Representative }

Name:

Designation:

SIGNATURE



FAROOQ A. KHAN
EVP/Regional Corporate Head-Central
UBL Corporate Banking Group
Lahore Region

SHANZAD AZAF
SVP / Unit Head
UBL Corporate Banking Group
LAHORE.

IN THE PRESENCE OF:
SIGNATURE OF WITNESSES

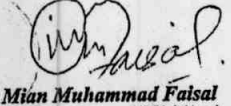
- 1- Name: Jawad Zafar
Address: Nadeem Road 2 Lahore
NIC No: 35202-3007702-1
- 2- Name: Muhammad Ahsan
Address: F-11, Model Town Colony, L.H.R.
NIC No: 35202-5878149-1

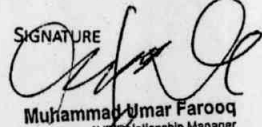
SIGNATURE



AS TERM FINANCE BANK

For and on behalf of NATIONAL BANK OF
PAKISTAN through its Authorised
Representative


Mian Muhammad Faisal
VP/Unit Head
National Bank of Pakistan
Corporate & Investment Banking Centre, Lahore.


SIGNATURE
Muhammad Umar Farooq
AVP Relationship Manager
National Bank of Pakistan
Corporate Banking Centre, Lahore.

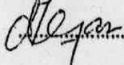
Name:

Designation:

IN THE PRESENCE OF:
SIGNATURE OF WITNESSES

- 1- Name: Jawad Zafer
Address: Nadir Dhaad NOS
NIC No: 35202-3009702-1
- 2- Name: Muhammad Ans.
Address: FA-11 wafat colony, LHR.
NIC No: 35202-5996119-1

SIGNATURE







AS TERM FINANCE BANK

For and on behalf of THE BANK OF PUNJAB
through its Authorised Representative

ASIF ALI
Assistant Vice President
THE BANK OF PUNJAB
Kasuri Tower Lahore.

SIGNATURE



Name:

MUHAMMAD IMRAN ASLAM
Senior Relationship Manager
Investment Banking Group
THE BANK OF PUNJAB
Head Office, Lahore.

Designation:

IN THE PRESENCE OF:
SIGNATURE OF WITNESSES

- 1- Name: *Jawad Zafar*
Address: *Nadir Shad 1 Lahore*
NIC No: *35202-3009702-1*
- 2- Name: *Mohammad Ans.*
Address: *FA-11 Malhotra Colony, LHR.*
NIC No: *35202-5786109-1*

SIGNATURE

[Signature]
[Signature]



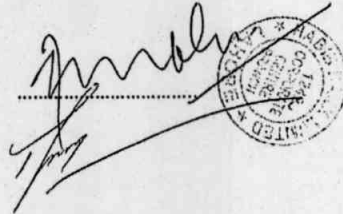
AS TERM FINANCE BANK

For and on behalf of HABIB BANK LIMITED
through its Authorised Representative }

Name:

Designation:

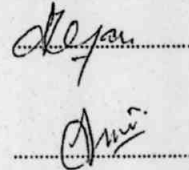
SIGNATURE



IN THE PRESENCE OF:
SIGNATURE OF WITNESSES

- 1- Name: Jawad Zafar
Address: Wadiv Road-1
NIC No: 38202-3009702-1
- 2- Name: Mahamud Ans.
Address: FA-11 Wadiv Colony, CTR.
NIC No: 25202-5986149-1

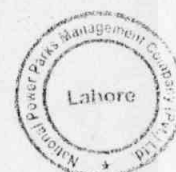
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National Power Parks Management Company (Private) Limited**Annex-D****Details of Costs during extended period****1230MW CCPP Haveli Bahadur Shah****PKR**

Description	Project Cost	50% of Head Office Cost	Total
LC commission during extended period	2,106,354		2,106,354
Insurance Cost during extended period	157,458,275		157,458,275
	-		-
	-		-
<u>Admin Costs during extended period</u>	-		-
Salarais wages & other benefits	29,357,253	20,097,539	49,454,792
Directors Fee		217,000	217,000
Medical Expenses Staff	314,047	639,257	953,304
EOBI	-	165,872	165,872
Communication	145,739	557,989	703,728
Utilities & Rentals	-	4,069,797	4,069,797
Vehicles Insurance	-	3,623,665	3,623,665
Repair & Maintenance	-	31,895	31,895
Printing & Stationery	2,816	636,797	639,613
Fee & Subscription	-	8,015	8,015
Office Supplies	486,073	192,954	679,027
Legal & Professional Charges	-	875,000	875,000
Publicity & Advertisement Charges	17,390	930,437	947,827
Vehicle Running & Maintenance	47,273	2,483,724	2,530,997
Generator Fuel	-	71,417	71,417
Entertainment	314,124	349,894	664,018
Outsourced Services	29,099	87,500	116,599
Travelling Allowance-Staff	143,250	244,185	387,435
News Paper & Perodicals	11,158	18,404	29,562
Taxes	1,303	2,816	4,119
Bank Charges	58,244	16,426	74,670
TOTAL ADMIN COSTS	30,927,769	35,320,581	66,248,350



National Power Parks Management Company (Private) Limited
Working Capital for 105 days cash cycle
1230MW CCPP Haveli Bahadur Shah

Annexure-E

<u>Ref</u>	<u>Billing Cycle as per PPA</u>	<u>Days</u>	<u>Reference</u>
	Billing cycle (Energy Invoice)	15 days	Article 9.5(b1)
	Payment Cycle	within 25 days after billing	Article 9.6(a)(i)
A	Total Receivable Turnover period	40 days	
<u>Suspension period requirements as per clause 9.10 of the PPA</u>			
	Billing cycle (Energy Invoice)	15 days	
	Overdue Payment Period	60 days	
B	Suspension period requirements as per clause 9.10 of the PPA	75 days	Article 9.10
<u>Billing Cycle as per GSA</u>			
	Billing cycle	7 days	Article 8.1 & 9.1
	Payment cycle	within 3 days after invoice	Article 9.3
C	Total Payable Turnover period	10 days	
D=A+B-C Net Receivable Turnover period		105 days	



HBS RLNG 1,230.540 MW
Reference Tariff Table - HSD Combined Cycle Operations

Year	Energy Purchase Price (Rs./kWh)			Capacity Purchase Price (PKR/kW/Hour)									Total Tariff	
	Fuel component	Var. O&M	Total EPP	Fixed O&M local	Fixed O&M foreign	Cost of W/C	Insurance	ROE	Debt Repayment	Interest Charges	Total CPP	Capacity charge@ 92%	Rs. / kWh	Cents / kWh
1	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.4363	0.6253	2.1284	2.3134	10.6889	10.1799
2	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.4785	0.5831	2.1284	2.3134	10.6889	10.1799
3	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.5249	0.5367	2.1284	2.3134	10.6889	10.1799
4	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.5757	0.4859	2.1284	2.3134	10.6889	10.1799
5	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.6314	0.4302	2.1284	2.3134	10.6889	10.1799
6	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.6926	0.3690	2.1284	2.3134	10.6889	10.1799
7	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.7596	0.3020	2.1284	2.3134	10.6889	10.1799
8	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.8332	0.2284	2.1284	2.3134	10.6889	10.1799
9	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.9139	0.1477	2.1284	2.3134	10.6889	10.1799
10	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	1.0024	0.0593	2.1284	2.3134	10.6889	10.1799
11	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
12	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
13	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
14	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
15	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
16	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
17	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
18	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
19	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
20	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
21	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
22	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
23	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
24	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
25	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
26	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
27	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
28	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
29	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809
30	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	-	-	1.0668	1.1595	9.5350	9.0809

Average

1-10	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.6848	0.3768	2.1284	2.3134	10.6889	10.1799
11-30	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.0000	0.0000	1.0668	1.1595	9.5350	9.0809
1-30	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.2283	0.1256	1.4206	1.5442	9.9196	9.4472

Levelized

1-30	7.9715	0.4039	8.3754	0.0711	0.1581	0.1081	0.0700	0.6594	0.4153	0.2767	1.7587	1.9117	10.2871	9.7972
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10.2871 Rs./kWh

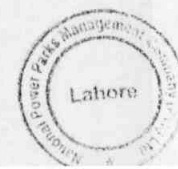
9.7972 US Cents/kWh



HBS RLNG 1,230.540 MW

Gross Capacity	1,085.400 MWs	US\$/PKR Parity	105.00
Net Capacity	1,046.000 MWs	Debt	597.64 US\$ Million
KIBOR	6.35%	Debt in Pak Rupees	62,752.39 Rs. Million
Spread over KIBOR	3.00%	DSRA	- Rs. Million
Total Interest Rate	9.35%		- US\$ Million

Period	Principal Million Rs.	Principal Repayment Million Rs.	Interest Million Rs.	Balaance Million Rs.	Debt Service Million Rs.	Principal Repayment Rs./kW/h	Interest Rs./kW/h	Debt Servicing Rs./kW/h
1	62,752.39	965.06	1,466.84	61,787.34	2,431.89			
2	61,787.34	987.61	1,444.28	60,799.72	2,431.89			
3	60,799.72	1,010.70	1,421.19	59,789.02	2,431.89			
4	59,789.02	1,034.32	1,397.57	58,754.70	2,431.89	0.4363	0.6253	1.0616
1st Year		3,997.69	5,729.88		9,727.57			
5	58,754.70	1,058.50	1,373.39	57,696.20	2,431.89			
6	57,696.20	1,083.24	1,348.65	56,612.95	2,431.89			
7	56,612.95	1,108.56	1,323.33	55,504.39	2,431.89			
8	55,504.39	1,134.48	1,297.42	54,369.91	2,431.89	0.4785	0.5831	1.0616
2nd Year		4,384.79	5,342.78		9,727.57			
9	54,369.91	1,161.00	1,270.90	53,208.92	2,431.89			
10	53,208.92	1,188.13	1,243.76	52,020.78	2,431.89			
11	52,020.78	1,215.91	1,215.99	50,804.87	2,431.89			
12	50,804.87	1,244.33	1,187.56	49,560.55	2,431.89	0.5249	0.5367	1.0616
3rd Year		4,809.37	4,918.20		9,727.57			
13	49,560.55	1,273.41	1,158.48	48,287.13	2,431.89			
14	48,287.13	1,303.18	1,128.71	46,983.95	2,431.89			
15	46,983.95	1,333.64	1,098.25	45,650.31	2,431.89			
16	45,650.31	1,364.82	1,067.08	44,285.49	2,431.89	0.5757	0.4859	1.0616
4th Year		5,275.05	4,452.52		9,727.57			
17	44,285.49	1,396.72	1,035.17	42,888.77	2,431.89			
18	42,888.77	1,429.37	1,002.53	41,459.40	2,431.89			
19	41,459.40	1,462.78	969.11	39,996.63	2,431.89			
20	39,996.63	1,496.97	934.92	38,499.65	2,431.89	0.6314	0.4302	1.0616
5th Year		5,785.84	3,941.73		9,727.57			
21	38,499.65	1,531.96	899.93	36,967.69	2,431.89			
22	36,967.69	1,567.77	864.12	35,399.92	2,431.89			
23	35,399.92	1,604.42	827.47	33,795.50	2,431.89			
24	33,795.50	1,641.92	789.97	32,153.58	2,431.89	0.6926	0.3690	1.0616
6th Year		6,346.08	3,381.49		9,727.57			
25	32,153.58	1,680.30	751.59	30,473.27	2,431.89			
26	30,473.27	1,719.58	712.31	28,753.69	2,431.89			
27	28,753.69	1,759.77	672.12	26,993.92	2,431.89			
28	26,993.92	1,800.91	630.98	25,193.01	2,431.89	0.7596	0.3020	1.0616
7th Year		6,960.57	2,767.00		9,727.57			
29	25,193.01	1,843.01	588.89	23,350.00	2,431.89			
30	23,350.00	1,886.09	545.81	21,463.92	2,431.89			
31	21,463.92	1,930.17	501.72	19,533.74	2,431.89			
32	19,533.74	1,975.29	456.60	17,558.45	2,431.89	0.8332	0.2284	1.0616
8th Year		7,634.56	2,093.01		9,727.57			
33	17,558.45	2,021.46	410.43	15,536.99	2,431.89			
34	15,536.99	2,068.72	363.18	13,468.27	2,431.89			
35	13,468.27	2,117.07	314.82	11,351.20	2,431.89			
36	11,351.20	2,166.56	265.33	9,184.64	2,431.89	0.9139	0.1477	1.0616
9th Year		8,373.81	1,353.76		9,727.57			
37	9,184.64	2,217.20	214.69	6,967.44	2,431.89			
38	6,967.44	2,269.03	162.86	4,698.41	2,431.89			
39	4,698.41	2,322.07	109.83	2,376.35	2,431.89			
40	2,376.35	2,376.35	55.55	(0.00)	2,431.89	1.0024	0.0593	1.0616
10th Year		9,184.64	542.93		9,727.57			



HBS RLNG 1,230.540 MW
Reference Tariff Table - RLNG Simple Cycle Operations

Year	Energy Purchase Price (Rs./kWh)			Capacity Purchase Price (PKR/kWh/Year)								Capacity charge@ 92%	Total Tariff	
	Fuel component	Var. O&M	Total EPP	Fixed O&M local	Fixed O&M foreign	Cost of W/C	Insurance	ROE	Debt Repayment	Interest Charges	Total CPP		Rs. / kWh	Cents / kWh
1	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.6002	1.7204	3.7880	4.1174	11.3930	10.8505
2	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.6583	0.8021	2.9278	3.1824	10.4580	9.9600
3	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.7220	0.7383	2.9278	3.1824	10.4580	9.9600
4	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.7919	0.6684	2.9278	3.1824	10.4580	9.9600
5	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.8686	0.5918	2.9278	3.1824	10.4580	9.9600
6	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.9527	0.5076	2.9278	3.1824	10.4580	9.9600
7	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	1.0450	0.4154	2.9278	3.1824	10.4580	9.9600
8	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	1.1461	0.3142	2.9278	3.1824	10.4580	9.9600
9	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	1.2571	0.2032	2.9278	3.1824	10.4580	9.9600
10	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	1.3788	0.0815	2.9278	3.1824	10.4580	9.9600
11	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
12	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
13	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
14	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
15	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
16	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
17	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
18	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
19	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
20	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
21	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
22	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
23	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
24	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
25	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
26	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
27	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
28	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
29	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
30	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	-	-	1.4674	1.5950	8.8707	8.4482
Average														
1-10	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.9421	0.6043	3.0138	3.2759	10.5515	10.0490
11-30	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071			1.4674	1.5950	8.8707	8.4482
1-30	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.3140	0.2014	1.9829	2.1553	9.4309	8.9818
Levelized														
1-30	6.7810	0.4946	7.2756	0.0978	0.2175	0.1487	0.0963	0.9071	0.5713	0.4635	2.5023	2.7199	9.9955	9.5195

Levelized Tariff = 9.9955 Rs./kWh



HBS RLNG 1,230.540 MW

Gross Capacity	771.700 MWs	US\$/PKR Parity	105.00
Net Capacity	760.400 MWs	Debt	597.64 US\$ Million
KIBOR	6.35%	Debt in Pak Rupees	62,752.39 Rs. Million
Spread over KIBOR	3.00%	DSRA	- Rs. Million
Total Interest Rate	9.35%		- US\$ Million

Period	Principal Million Rs.	Principal Repayment Million Rs.	Interest Million Rs.	Balaance Million Rs.	Debt Service Million Rs.	Principal Repayment Rs./kW/h	Interest Rs./kW/h	Debt Servicing Rs./kW/h
1	62,752.39	965.06	1,466.84	61,787.34	2,431.89			
2	61,787.34	987.61	1,444.28	60,799.72	2,431.89			
3	60,799.72	1,010.70	1,421.19	59,789.02	2,431.89			
4	59,789.02	1,034.32	1,397.57	58,754.70	2,431.89	0.6002	0.8602	1.4604
1st Year		3,997.69	5,729.88		9,727.57			
5	58,754.70	1,058.50	1,373.39	57,696.20	2,431.89			
6	57,696.20	1,083.24	1,348.65	56,612.95	2,431.89			
7	56,612.95	1,108.56	1,323.33	55,504.39	2,431.89			
8	55,504.39	1,134.48	1,297.42	54,369.91	2,431.89	0.6583	0.8021	1.4604
2nd Year		4,384.79	5,342.78		9,727.57			
9	54,369.91	1,161.00	1,270.90	53,208.92	2,431.89			
10	53,208.92	1,188.13	1,243.76	52,020.78	2,431.89			
11	52,020.78	1,215.91	1,215.99	50,804.87	2,431.89			
12	50,804.87	1,244.33	1,187.56	49,560.55	2,431.89	0.7220	0.7383	1.4604
3rd Year		4,809.37	4,918.20		9,727.57			
13	49,560.55	1,273.41	1,158.48	48,287.13	2,431.89			
14	48,287.13	1,303.18	1,128.71	46,983.95	2,431.89			
15	46,983.95	1,333.64	1,098.25	45,650.31	2,431.89			
16	45,650.31	1,364.82	1,067.08	44,285.49	2,431.89	0.7919	0.6684	1.4604
4th Year		5,275.05	4,452.52		9,727.57			
17	44,285.49	1,396.72	1,035.17	42,888.77	2,431.89			
18	42,888.77	1,429.37	1,002.53	41,459.40	2,431.89			
19	41,459.40	1,462.78	969.11	39,996.63	2,431.89			
20	39,996.63	1,496.97	934.92	38,499.65	2,431.89	0.8686	0.5918	1.4604
5th Year		5,785.84	3,941.73		9,727.57			
21	38,499.65	1,531.96	899.93	36,967.69	2,431.89			
22	36,967.69	1,567.77	864.12	35,399.92	2,431.89			
23	35,399.92	1,604.42	827.47	33,795.50	2,431.89			
24	33,795.50	1,641.92	789.97	32,153.58	2,431.89	0.9527	0.5076	1.4604
6th Year		6,346.08	3,381.49		9,727.57			
25	32,153.58	1,680.30	751.59	30,473.27	2,431.89			
26	30,473.27	1,719.58	712.31	28,753.69	2,431.89			
27	28,753.69	1,759.77	672.12	26,993.92	2,431.89			
28	26,993.92	1,800.91	630.98	25,193.01	2,431.89	1.0450	0.4154	1.4604
7th Year		6,960.57	2,767.00		9,727.57			
29	25,193.01	1,843.01	588.89	23,350.00	2,431.89			
30	23,350.00	1,886.09	545.81	21,463.92	2,431.89			
31	21,463.92	1,930.17	501.72	19,533.74	2,431.89			
32	19,533.74	1,975.29	456.60	17,558.45	2,431.89	1.1461	0.3142	1.4604
8th Year		7,634.56	2,093.01		9,727.57			
33	17,558.45	2,021.46	410.43	15,536.99	2,431.89			
34	15,536.99	2,068.72	363.18	13,468.27	2,431.89			
35	13,468.27	2,117.07	314.82	11,351.20	2,431.89			
36	11,351.20	2,166.56	265.33	9,184.64	2,431.89	1.2571	0.2032	1.4604
9th Year		8,373.81	1,353.76		9,727.57			
37	9,184.64	2,217.20	214.69	6,967.44	2,431.89			
38	6,967.44	2,269.03	162.86	4,698.41	2,431.89			
39	4,698.41	2,322.07	109.83	2,376.35	2,431.89			
40	2,376.35	2,376.35	55.55	(0.00)	2,431.89	1.3788	0.0815	1.4604
10th Year		9,184.64	542.93		9,727.57			



HBS RLNG 1,230.540 MW
Reference Tariff Table - HSD Simple Cycle Operations

Year	Energy Purchase Price (Rs./kWh)			Capacity Purchase Price (PKR/kW/Hour)								Capacity charge@ 92%	Total Tariff	
	Fuel component	Var. O&M	Total EPP	Fixed O&M local	Fixed O&M foreign	Cost of W/C	Insurance	ROE	Debt Repayment	Interest Charges	Total CPP		Rs. / kWh	Cents / kWh
1	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.6672	0.9563	3.9879	4.3346	16.7867	15.9874
2	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.7318	0.8917	3.9879	4.3346	16.7867	15.9874
3	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.8027	0.8208	3.9879	4.3346	16.7867	15.9874
4	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.8804	0.7431	3.9879	4.3346	16.7867	15.9874
5	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.9656	0.6579	3.9879	4.3346	16.7867	15.9874
6	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	1.0591	0.5643	3.9879	4.3346	16.7867	15.9874
7	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	1.1617	0.4618	3.9879	4.3346	16.7867	15.9874
8	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	1.2742	0.3493	3.9879	4.3346	16.7867	15.9874
9	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	1.3975	0.2259	3.9879	4.3346	16.7867	15.9874
10	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	1.5329	0.0906	3.9879	4.3346	16.7867	15.9874
11	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
12	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
13	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
14	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
15	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
16	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
17	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
18	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
19	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
20	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
21	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
22	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
23	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
24	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
25	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
26	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
27	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
28	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
29	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
30	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	-	-	2.3644	2.5700	15.0221	14.3068
Average														
1-10	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	1.0473	0.5762	3.9879	4.3346	16.7867	15.9874
11-30	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.0000	0.0000	2.3644	2.5700	15.0221	14.3068
1-30	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.3491	0.1921	2.9056	3.1582	15.6103	14.8670
Levelized														
1-30	11.8345	0.6176	12.4521	0.1631	0.3627	0.1653	0.1607	1.5126	0.6351	0.4231	3.4226	3.7202	16.1723	15.4022

Levelized Tariff = 16.1723 Rs./kWh

HBS RLNG 1,230.540 MW

Gross Capacity	711.600 MWs	US\$/PKR Parity	105.00
Net Capacity	684.000 MWs	Debt	597.64 US\$ Million
KIBOR	6.35%	Debt in Pak Rupees	62,752.39 Rs. Million
Spread over KIBOR	3.00%	DSRA	- Rs. Million
Total Interest Rate	9.35%		- US\$ Million

Period	Principal Million Rs.	Principal Repayment Million Rs.	Interest Million Rs.	Balance Million Rs.	Debt Service Million Rs.	Principal Repayment Rs./kW/h	Interest Rs./kW/h	Debt Servicing Rs./kW/h
1	62,752.39	965.06	1,466.84	61,787.34	2,431.89			
2	61,787.34	987.61	1,444.28	60,799.72	2,431.89			
3	60,799.72	1,010.70	1,421.19	59,789.02	2,431.89			
4	59,789.02	1,034.32	1,397.57	58,754.70	2,431.89	0.6672	0.9563	1.6235
1st Year		3,997.69	5,729.88		9,727.57			
5	58,754.70	1,058.50	1,373.39	57,696.20	2,431.89			
6	57,696.20	1,083.24	1,348.65	56,612.95	2,431.89			
7	56,612.95	1,108.56	1,323.33	55,504.39	2,431.89			
8	55,504.39	1,134.48	1,297.42	54,369.91	2,431.89	0.7318	0.8917	1.6235
2nd Year		4,384.79	5,342.78		9,727.57			
9	54,369.91	1,161.00	1,270.90	53,208.92	2,431.89			
10	53,208.92	1,188.13	1,243.76	52,020.78	2,431.89			
11	52,020.78	1,215.91	1,215.99	50,804.87	2,431.89			
12	50,804.87	1,244.33	1,187.56	49,560.55	2,431.89	0.8027	0.8208	1.6235
3rd Year		4,809.37	4,918.20		9,727.57			
13	49,560.55	1,273.41	1,158.48	48,287.13	2,431.89			
14	48,287.13	1,303.18	1,128.71	46,983.95	2,431.89			
15	46,983.95	1,333.64	1,098.25	45,650.31	2,431.89			
16	45,650.31	1,364.82	1,067.08	44,285.49	2,431.89	0.8804	0.7431	1.6235
4th Year		5,275.05	4,452.52		9,727.57			
17	44,285.49	1,396.72	1,035.17	42,888.77	2,431.89			
18	42,888.77	1,429.37	1,002.53	41,459.40	2,431.89			
19	41,459.40	1,462.78	969.11	39,996.63	2,431.89			
20	39,996.63	1,496.97	934.92	38,499.65	2,431.89	0.9656	0.6579	1.6235
5th Year		5,785.84	3,941.73		9,727.57			
21	38,499.65	1,531.96	899.93	36,967.69	2,431.89			
22	36,967.69	1,567.77	864.12	35,399.92	2,431.89			
23	35,399.92	1,604.42	827.47	33,795.50	2,431.89			
24	33,795.50	1,641.92	789.97	32,153.58	2,431.89	1.0591	0.5643	1.6235
6th Year		6,346.08	3,381.49		9,727.57			
25	32,153.58	1,680.30	751.59	30,473.27	2,431.89			
26	30,473.27	1,719.58	712.31	28,753.69	2,431.89			
27	28,753.69	1,759.77	672.12	26,993.92	2,431.89			
28	26,993.92	1,800.91	630.98	25,193.01	2,431.89	1.1617	0.4618	1.6235
7th Year		6,960.57	2,767.00		9,727.57			
29	25,193.01	1,843.01	588.89	23,350.00	2,431.89			
30	23,350.00	1,886.09	545.81	21,463.92	2,431.89			
31	21,463.92	1,930.17	501.72	19,533.74	2,431.89			
32	19,533.74	1,975.29	456.60	17,558.45	2,431.89	1.2742	0.3493	1.6235
8th Year		7,634.56	2,093.01		9,727.57			
33	17,558.45	2,021.46	410.43	15,536.99	2,431.89			
34	15,536.99	2,068.72	363.18	13,468.27	2,431.89			
35	13,468.27	2,117.07	314.82	11,351.20	2,431.89			
36	11,351.20	2,166.56	265.33	9,184.64	2,431.89	1.3975	0.2259	1.6235
9th Year		8,373.81	1,353.76		9,727.57			
37	9,184.64	2,217.20	214.69	6,967.44	2,431.89			
38	6,967.44	2,269.03	162.86	4,698.41	2,431.89			
39	4,698.41	2,322.07	109.83	2,376.35	2,431.89			
40	2,376.35	2,376.35	55.55	(0.00)	2,431.89	1.5329	0.0906	1.6235
10th Year		9,184.64	542.93		9,727.57			

