

Arabian Sea Wind Energy (Pvt) Ltd.

B-18, Darakhshan, Phase VI, D.H.A, Karachi-Pakistan

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Ref: ASWE/NEPRA/09/11

Dated: September 7, 2009

Mr. Arshad Mahmood,
Registrar,
National Electric Power Regulatory Authority (NEPRA),
2nd Floor, OPF Building,
Shahrah-e-Jamhuriat,
G-5/2, Islamabad.
Te: 051-9207200, 9205225

Subject: TARIFF PETITION

Dear Mr. Arshad Mahmood,

Please find enclosed Arabian Sea Wind Energy (Pvt) Ltd tariff petition for a 49.5 MW Wind Farm in triplicate (one original and two copies). Also enclosed please find Pay Order No. 1968191 dated September 7, 2009 for Rs.862,400.00 (Eight hundred sixty two thousand and four hundred only) the fee of Tariff Petition.

The petition is based on the recent guidelines issued by the Ministry of Water and Power for Wind Power Tariffs and on the Renewable Energy Policy 2006.

The wind farm site is located at Buhara near Mirpur Sakhr. The levelized tariff for this project is 13.12132 US Cents per kWh.

We hope you will find all in order. If you have any question or comments, please do not hesitate to contact under signed:

@ 00 965 99618634 or at e-mail aliprojects@aol.com;

Regards,

Sincerely,


(M. Zafar Ali)
M.D./CEO

Registrar
Dt. No. 4575
Dated 09-09-2009

Encl:

1. Pay Order No. 1968191 for Rs. 862400.00
2. Affidavit
3. Resolutions
4. Tariff Petition.

Forwarded P.O. No. 1968191 for Rs. 862,400/- for n.a. fl.

Dir. (E)
A.D. (MR) to process the petition

A Subsidiary of
Arabian Sea Wind Energy (Pvt) Ltd.
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Stamp: 09/09/2009

1. Details of Petition

1.1 Name and Address

Arabian Sea Wind Energy (Pvt.) Ltd.,
18-B, Darakhshan Villas, Phase-VI,
DHA, Karachi – Pakistan
Ph: +92-21-5345216
Fax: +92-21-5345215

1.2 Representatives

Representatives of Arabian Sea Wind Energy (Pvt) Ltd. (ASWE):

- Mr. Muhammad Zafar Ali, Managing Director (CEO)
- Sheikh Humoud D. S. Al-Sabah, Director
- Midroc Tussonia (Pvt) Ltd. (Represented by Mr. Javed Qureshi)

1.3 Grounds of Petitioner's Interest / License Details

Under the "Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of) 1997, hereinafter referred to as the NEPRA Act, National Electric Power Regulatory Authority ("NEPRA") is responsible inter alia, for determining tariffs and other terms and conditions for the supply of electricity by the generation, transmission and distribution companies and to recommend these to the Federal Government, subject to the need to comply with guidelines, not inconsistent with the provisions of the NEPRA Act, laid down by the Federal Government. NEPRA is also responsible for determining the process and procedures for reviewing tariff and recommending tariff adjustments.

Arabian Sea Wind Energy (Pvt) Ltd (ASWE) has been set up to develop, own and operate a 50.00 MW Wind Farm Independent Power Producer (IPP) project in Sindh, Pakistan (the "Project") as 1st Phase.

EQUITY PARTNERS

ASWE is a project company a subsidiary of Midroc Tussonia (Pvt.) Ltd. that is owned by Midroc of Kingdom of Saudi Arabia, a multi billion dollar concern with vast experience in oil & gas power, infrastructure, health care, worldwide and Tussonia Holdings LLC (Registered in Isle of Man) Head Office in State of Kuwait a project development, consultancy & investment firm with vast experience in oil & gas power, real estate investments & trading.

AND

Al Jaber Group, A Multi Billion \$ Group, EPC Contractors in Oil and Gas, Power, Infrastructure, is also as Equity Partners in the Project and will undertake and will play active role in development/Execution of the Project.

Aljaber Group of Companies offers the local market a diverse yet complementary range of products and services, linked by technical abilities, in partnership with the world's international leading companies from various sectors.

A subsidiary of Al Jaber Group, INTERNATIONAL TECHNOLOGY SERVICES (ITS) Doha, State of Qatar has incorporated a Company in Pakistan under the name of Al Jaber International Technology Services (Pvt) Ltd. (Al Jaber ITS) having Equity in the Wind Project Phase-I and will undertake EPC works as part of Equity.

Feasibility study for the project was carried out with the help of technical and financial consultants of international repute. The Study has already been completed and approved by AEDB vide its letter No. B/3/1/MTL/07 dated July 15, 2008 and verified vide letter No. B/3/1/ASWEPL/2008 dated 22.12.2008. Copies of the letters are enclosed as Annexure "A".

The power purchaser will be the National Transmission and Distribution Company (NTDC) which has shown interest in purchasing the energy produced by the Project.

In accordance with the NEPRA Power Procurement (Procedures and Standards) Regulations, 2005, the draft Power Purchase Agreement (PPA) for the project, alongwith the proposed tariff has been discussed with NTDC prior to this Petition. NTDC has agreed to procure power from ASWE to the extent of 50 MW.

1.4 Compliance with Tariff Standards and Procedures

This petition is being filed under Rule 6 of NEPRA Generation Licensing Rules, 2000. Tariffs have been prepared on the basis of the Guidelines presented in the Ministry of Water and Power / AEDB's "Guidelines for Determination of Tariff for Wind Power Generation 2005".

Information required to be filed under Rule 3 of the Tariff Standards and Procedures Rules 1998 is included in and /or with this petition and has been summarized in Annexure C of this document.

2. Facts and Ground of Petition

2.1 Rational for Wind Power

Pakistan's major electricity sources are thermal and hydro generation, meeting approximately 70% and 30% (respectively) of the country's annual electricity demand. The primary thermal generation fuels are furnace oil and gas. While both are produced domestically, demand for oil already outstrips supply by a considerable amount, and gas demand is expected to outstrip domestic supply by next year. Oil imports are already a significant burden on the national exchequer and the increasing import bill continues to exert further pressure on the trade deficit and the foreign exchange reserves. Over 40 percent of the country's total power generation is by fuel oil, making the country ever more dependent on

imported furnace oil. Total furnace oil sales recorded a considerable every year increase. This will continue to increase as the power generation mix in the country continues to be dominated by furnace oil based plants.

With this increase in the oil import bill, the trade deficit continues to take a beating. The country's trade gap widened to over \$7 billion of the current financial fiscal year. Analyses are claiming that the country's trade deficit will cross the \$13 billion mark for the first time in the history of the country, based largely on unprecedented mark for the first time in this history of the country, based largely on unprecedented imports of oil products. Huge amounts of foreign exchange are being used for oil imports for power plants in order to avoid an adverse impact on economic growth. Unfortunately, Pakistan cannot continue along the path, as such figures are already having serious repercussions on the economy. The stability of the rupee is already at stake due to the ever widening trade gap. We need to look at indigenous renewable sources of power generation in order to secure our energy supply and to be independent from geo-political events which have a direct impact on the cost of oil. As a nation which is struggling to gain economic and financial independence we cannot be held hostage to international oil and gas prices and therefore, need to focus on renewable and sustainable forms of energy, which do not place a burden on the national exchequer.

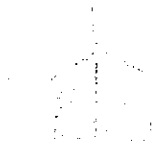
Traditional fuel sources are found in areas which today are extremely volatile and politically unstable. This has led many countries including Pakistan to look at renewable sources of energy to ensure that despite political unrest in the world energy production does not come to a grinding halt. Developing new thermal generating facilities is becoming more difficult due to fuel uncertainties of pricing, dependability of long term supplies, transportation, and environmental and emission requirements. Energy security combined with the need to cut carbon emission, have seen a huge increase in the demand for wind power.

It is considered that wind generation could become a significant contributor to Pakistan's electricity demand in the future – 7800 MW by 2015 and 9700 MW by 2030. The development of wind generation projects supports the environmental objectives of the Government of Pakistan by reducing dependence on fuels for thermal power generation, increasing diversity in Pakistan's electricity generation mix, and reducing greenhouse gas (GHG) emissions through the avoidance of thermal power generation and help reduce the exorbitant trade deficit. In addition, Wind Power will have no adverse pass through effects of fuel costs, as has been witnessed in all thermal power generating units in the country.

2.2 Rational for this Project

In 2005, the location of the proposed ASWE project was identified by AEDB as a potential location for a pilot wind turbine generation Project. This is consistent with the AEDB's mandate to encourage and facilitate the development of renewable energy sources.

The project is being setup based on NORDEX S77 5 MW wind turbines.



Nordex S77 is a modern and reliable system. It combines consistent engineering with technologically high quality components in an efficient concept. The turbines are designed for a service life of at least 20 years and are ISO 9001 certified.

Estimated project completion schedule starting with the signing of Energy Purchase Agreement.

2.3 Production Estimate

This section presents the preliminary Production Estimates for ASWE 49.5MW wind farm. The production estimate has been calculated using data from the Gharo mast, which is located 30Km to the NE of the site with data going back to January 2005, wind data provided by AEDB of Gharo Mast were in 2 minute intervals recorded at 10, 30 and 50m levels.

NORDEX S77 1.5MW wind turbine model was considered in the energy yield calculations. This model is an 1500kW turbine with a 77m rotor diameter, hub height 80m and high temperature (HT) design.

Power curves corrected to an air density of 1.17 kg/m³ have been used in the production calculations. The production estimates have been carried out using WAsP 8.3, WindPro 2.5 and WAsP Eng. software. The production estimates include array losses due to shadowing effects (wake effects) from one turbine to another within the wind farm.

Based on the available information, the following main results have been derived:

Wind Turbines	S77 1.5 MW Nordex
Hub height (m)	80
No. of Turbines	33
Total Installed Capacity (MW)	49.5
Estimated Gross Annual Park Production (GWh/Year)	182.687
Net deliverable production (GWh/Year)	152.251 GWh/Year
Capacity Factor	35.11%

It is estimated that the project will produce a gross of about 182.687 GWh per annum (including auxiliary consumption). Details of the energy production are shown in the PB Power report attached as Exhibit I. The average annual electricity sales to NTDC, net of auxiliary consumption (about 3%), is then estimated to be about 152.251 GWh.

This utilizes a gross capacity of 49.5 MW, consisting of 33 turbines (1.5 MW each), based on the configuration chosen for the Project (details can be found in Volume I – Wind Study by PB Power). The net capacity (excluding auxiliary consumption) is estimated at 48.2 MW, with an annual plant factor of 35.11%.

2.4 Carbon Credits

The Project will be able to benefit from receiving carbon credits under the Clean Development Mechanism (CDM), one of the three mechanisms established by the Kyoto Protocol to meet its objective of stabilizing greenhouse gas concentrations in the atmosphere.

Countries that have commitments under the Kyoto Protocol may undertake investments that reduce emissions in developing countries, and in return receive Certified Emission Reductions (CERs) that can be used to offset their commitments under the Protocol. Alternatively, countries such as Pakistan that do not have emission reduction commitments under the Protocol may seek a buyer for emission reductions from a domestic project.

Pakistan is eligible to participate in the CDM, having ratified the Kyoto Protocol and established a Designated National CDM Authority.

The company will process carbon credits as per section 8.3.3 of the Policy for Development of Renewable Energy for Power Generation 2006 which has been established by the government of Pakistan.

The revenue stream from the expected CERs has been determined through the offer PB Power has received from Eco-Securities. Eco-Securities has analyzed the energy mix within Pakistan & the emission reductions need to be “additional”, i.e. emissions must be reduced below what would have occurred in the absence of the activity. Revenue streams beyond 2012 cannot be estimated as the Kyoto Protocol expires and there is no clear directive issued how CERs will be credited and traded in the open market.

As per the policy, the annual carbon revenues realized subsequently shall be divided in the following manner: (a) an up front, nominal deduction shall be made for the administrative costs of the joint CER management mechanism (b) an amount not exceeding that required to bring the IPP's return on equity (ROE) to the level allowed by NEPRA shall be payable to the power purchaser (NTDC); and (c) the remaining revenues shall be divided in equal proportion between the IPP (as a ‘green credit’ for financing the financial returns accruing to the project's investors) and BEEC (as ‘green tariff’ support for lowering the per unit price of lean RE power, thereby increasing its attractiveness for purchasers and consumers). The project shall be required to sign a separate agreement binding them to the terms of such a carbon crediting mechanism, but shall not be penalized for failure to qualify for or obtain sufficient annual CER revenues to first compensate NTDC under item (b) above, provided the project has complied with terms of the aforementioned carbon credit agreement, as certified by NEPRA.

3. Tariff Structure

3.1 Revenue Requirement

The proposed tariffs are set to cover the estimated revenue requirement for the Project, including the debt service coverage and a reasonable return on equity. In particular, the revenue requirement for this Project includes: the debt service; O&M (fixed and variable) and other expenses; and a return on equity (ROE).

To properly match the actual tariff revenue with the Project's revenue requirement, the proposed tariffs would need to reflect the actual cost structure (fixed and variable) of the Project; and include the appropriate escalable components, so that the tariffs are properly adjusted to account for any change in the Project's revenue requirement (with regards to inflation, foreign exchange etc).

With this revenue requirement in mind, the proposed tariffs, based on the typical structure adopted for similar IPPs around the world, consist of charges which reflect the fixed components of the revenue requirement; and charges which reflect those costs that vary with the actual units produced.

3.2 Non-Debt Fixed Cost Components

The non-debt, fixed escalable component covers the following items:

- O&M Cost
- Corporate and Administrative costs
- Insurance expenses; and
- Return on Equity, consisting of the portions funded in:
 - local currency (Rs) and
 - foreign currency (US\$).

3.2.1 O&M COSTS (FIXED)

Regular maintenance of these machines is required as per the manufacturers recommendation. This is to ensure that the Plant remains available for reliable dispatch and for completing its contracted life. This component also includes the Management Fee of the O&M Operator. This component would be subjected to US\$/PKR adjustment/indexation.

3.2.2 CORPORATE AND ADMINISTRATION COSTS

The Corporate and Administrative Costs component of the Escalable Energy payment represents the fixed costs of all the staff for O&M including the remuneration to employees and other administration costs including rent, utilities and local taxes. It also includes costs such as NEPRA annual fees and bank's yearly commission upon opening of Letter

of Guarantee in favor of WAPDA/NEDRA, auditing fees, legal relationship and consultancy fees, environmental monitoring and reporting fees, etc. this component is subject to local CPI indexation/adjustment.

3.2.3 Insurance Cost (Included in O&M Cost - Foreign):

The Insurance component consists of all risk insurance / re-insurance for the Project, as well as business-interruption insurance which is the lender's stipulated requirement. Since the Pakistan Insurance / Reinsurance industry do not have sufficient capacity and expertise to manage such risks entirely on their own, the local industry normally retains only about 5% of the risk while 95% is reinsured abroad. As machinery breakdown, natural calamities (like earthquake), sabotage and consequential business interruption are the biggest threat to the life of the Plant and the Company, it is imperative that all aspects of the risk are covered adequately and no compromise is made in this respect. This cost would also be subject to US\$/PKR adjustment / indexation.

3.2.4 RETURN ON EQUITY:

The Return on Equity (ROE) component includes return on invested equity giving an IRR of 15% net of withholding tax on the basis of maximum dividends payouts possible to the shareholders during each particular year and for the whole of the 20 year period. The equity investment is funded in (i) local currency (PKR) and (ii) foreign currency (USD) and it is expected that the following indexations would be allowed:

- Return on Foreign Equity - PKR/USD Exchange Rate and US CPI
- Return on Local equity - CPI

3.3 Debt Service Cost Component

The debt service cost component covers the following non-escalable items:

- Repayment of the principal amount; and
- Payment of interest charges

The Project's debt is envisaged to be fully financed in foreign currency (US\$), with a 10-year repayment term (following a 5-year grace period). The debt service cost component is thus envisaged to reflect the debt service obligations in the first 10-years of the Project's operation. For the remaining 10-years of the tariff control period, the debt service cost component would thus be zero.

As presented in Annex I, the debt service component will be fully indexed to the foreign exchange rate (Rs / US\$), reflecting the foreign financing of the Project. The interest charge portion will be indexed against variations in the LIBOR.

In addition, a one time adjustment in the IPC price will also be required at the time of the financial closing of the Project, which will result in an update to the debt service cost and return on equity components as of the closing date.

3.4 Non-Debt Variable Cost Component

The non-debt variable component of the cost will be fully indexed as follows:

- Local variable expense Local CPI
- Foreign portion of the variable O&M cost (mainly spare parts) US\$ / Rs exchange rates
US CPI

This portion of the tariff structure will also be indexed during the testing phase of the Project.

3.5 TARIFF ASSUMPTIONS:

The following assumptions have been made in the calculation of the proposed tariff. If any of these assumptions change, which is possible between now and financial close, the tariff will have to be recalculated to account for these adjustments.

- Financing terms have been taken into these calculations based on initial discussions with the financial institutions. Final terms, however, will be negotiated with financial institutions once tariff has been determined by NEPRA. Final term sheet will be approved by AEDB. This will include mainly the debt-equity ratio, grace period and loan repayment term, base currency of the loan, benchmark index (LIBOR/KIBOR) and the spread margin for the financial institutions.
- This tariff has been calculated based on the debt-equity ratio of 80:20. This ratio will change if the same is not accepted by the banks. Further, 100% equity investment has been assumed in US dollars. However, final currency of the equity investment (or portions thereof) will be decided among the shareholders at the time of financial close.
- Insurance cost has been assumed at 1.5% during construction and 1.0% during operations based on the indicative rates received from foreign insurance companies. Currency for the premium payment has been assumed as Euro. Premium rate and base currency for the insurance arrangements will be finalized at the time of financial close.

- Base currency for operations and maintenance costs (excluding administrative costs and land lease cost which have been denominated in Pak Rupees) has been assumed as dollar. This, however, will be finalized when contract will be signed with the O&M operator. Any changes in the above terms will require automatic adjustment in the tariff without referring back to NEPRA.

4. Justification for Proposed Tariffs

4.1 Summary

Determining tariffs for a wind generation project involves the following items:

- The tariff control period, over which fixed costs are allocated. A shorter tariff control period will result in higher annual tariffs;
- Capital cost for equipment and construction;
- Cost of debt and equity
- O&M cost; and
- How cost components may vary over the tariff control period, based on inflation foreign exchange rate movements and interest rate changes.

Each of these components is discussed in detail in this section of the Petition.

A summary of the contribution of each of the costs to the total annual tariff is shown in Table-I. This is based on a 20-year asset life and 35.11% plant capacity factor.

Table-I: Annual Costs

<u>Cost Item</u>	<u>Average annual cost Year 1-10 (million Rs)</u>	<u>Average annual cost years 11-20 (million Rs)</u>
Debt Servicing	1,166,576	
Operation and Maintenance Costs (including insurance)	373.152	373.152
Return on Equity	376,000	376,000
Total Cost	1,883,828	749.152

4.2 TARIFF CONTROL PERIOD

The level of the proposed tariffs is highly sensitive to the length of the tariff control period. As in recent determinations made by SE PRA, typical power generation projects in Pakistan require long-term tariff control period. This

is driven both by the needs of debt providers/lenders and in recognition of NTDC's role as the purchaser of the Project's electricity output.

The debt provider/lender's willingness to provide financing for power projects is often conditional on repayment of the loan within 10 years. As the project is envisaged to be 80% debt funded with stipulation of the loan tenor, this implies a higher debt service cost requirement (in terms of fixed charges) in the first 10 years of the project, as compared to the later years after the loan has been repaid.

As a result, the purchaser (NTDC) will face higher tariffs in the earlier years due to debt servicing. In the latter years, however, the fixed tariff will be reduced to reflect those lower associated costs.

A 20-year period of power purchase arrangements is therefore proposed for this project. The tariff during this period would specify different rates for the first 10 years and the remaining 10 years, in accordance with Rule 6 of the NEPRA Licensing (Generation) Rules, 2000.

Moreover, a 20-year tariff control period is mainly in tandem with the 20-year design life of Nordex-manufactured wind turbines. The design lifetime concept simply means that all components used in the wind turbines are designed to have a very small probability of failure within 20 years. While the actual life of any particular wind generation installation may be longer than this, depending on factors such as turbine quality and local climatic conditions, realistically the design life represents the expected life of the assets. A tariff control period longer than 20 years would therefore be inappropriate in this case.

On the contrary, the expected life of a typical combined cycle gas turbine generator is 30 years. Investors in such a plant would be likely, if submitting a tariff application, to seek a longer tariff control period commensurate with this.

4.3 Project Cost

4.3.1 Summary

	USD	PKR
	----- Billions -----	-----
Total Project Cost		
EPC Costs	127.264	10,066.598
Project Development Costs	3.78	299.365
Operating Fixed Assets	0.37	29.500
Financial Charges	7.750	613.041
Other Project Costs	3.06	242.110
	<u>142.23</u>	<u>11,250.614</u>
 Cost / MW [in millions]	 2.87	 227.285

The above table exhibits total project cost which amounts to PKR 11,250.614 million (USD 142,233 million). We have assumed cost of 1.5 MW Nordex (S77- 1500KW) wind turbine in our project cost estimates. Vendor / Equipment selection process and criteria is discussed in the next section.

As this project is the first of its kind in Pakistan, no local wind generation cost information is available for comparison. Consequently, wind generation costs are not directly comparable with any other type of generation technology.

4.3.2 Equipment Selection

ASWE sought proposals from wind generation equipment providers that met a number of defined criteria:

- Wind conditions: Compliance of proposed wind turbine with wind conditions
- Prices for delivery, transport, erection and commissioning of WEC including terms of payment; specific costs, country economical and political condition; relation between final investment costs and operation cost to the estimated energy yield
- Readiness of supplier to offer turn-key solutions
- Cost of Equipment
- Commitment to the market: Willingness to commit to the Pakistan market with regard to set-up or support in setting up a local service organization
- Delivery time: Lead time and conditions to be fulfilled in order to have the agreed delivery time started
- Energy output: Warranted power curve, performance warranty
- Grid compatibility: WEC must comply with the latest grid condition requirements
- Documentation: Completeness of technical documentation for the proposed turbine model or time schedule for the completion (not delaying the application for the generation license procedure)
- Track record:
 - Turbine: number of installed turbines of the proposed type(s) of WEC, location and year of installation; availability figures giving evidence of the turbine's maturity

- Company: position in market, financial strength, growth in relation to market, service quality
- O&M: suitability of O&M concept for size and location of projects, availability of spare parts, consumables and main components

Based on extensive evaluation of various manufacturers, the Nordex S77 1.5 MW has been selected for this project. The decision to use the S77 for the project was influenced mainly by the following reasons:

- Nordex shows a great interest in the Pakistan market and has - compared to the other manufacturers - prepared itself best to supply to the Pakistan market.
- The S77 is a well proven technology
- Location specific control for individual turbines or wind farms.
- Security due to redundant systems
- 24 hour remote monitoring
- Autonomous safety systems

4.3.3 EPC COSTS

The EPC cost under the Nordex proposal is US\$ 127.264 million. The major portion of the cost is attributed to plant and equipment.

The table below summarizes the details of the EPC costs for the bid.

EPC COST

Component Costs	Project Cost in		% age	
	USD	PKR	Sub-Head	Project
	-- Figures in Millions --			
Energy Equipment	70.470	8,574.16	55.37%	49.55%
Freight and Insurance	14.919	1,180.00	11.72%	10.49%
Civil Works	16.280	1,287.75	12.79%	11.45%
Electrical Works	13.665	1,080.92	10.74%	9.61%
Project Management and Supervision	9.978	789.24	7.84%	7.02%
Other EPC Costs	1.952	154.42	1.53%	1.37%
EPC Costs	127.264	10,066.58	100.00%	89.48%

4.3.4 PROJECT DEVELOPMENT COSTS

Details of the project development costs (costs other than EPC) are exhibited in the following table:

Sponsors' Costs

Component Costs	Project Cost in		% age	
	USD	PKR	Sub-Head	Project
Consultants' Costs	2.815	223.655	2.22%	1.98%
Administration During Construction	0.832	65.800	0.65%	0.58%
Licenses and Other Legal Costs	0.138	10.910	0.11%	0.10%
Operating Fixed Assets	0.373	29.500	0.29%	0.26%
Financial Charges During Construction	7.750	613.041	6.07%	5.45%
Other Project Costs	3.061	241.110	2.40%	2.15%
Sponsors' Costs	14.969	11,000.016	11.54%	10.52%



The project development cost is based on preliminary assumptions and consists of (other than consultants' fees and financial expenses) the following:

Other Operating Fixed Assets and Administration during Construction: This cost component represents the initial cost for setting up the operations of ASWE i.e. costs of furniture, office equipment, motor vehicles, payroll and other related expenses.

Other Project Cost: While estimating this cost component, we have taken into consideration the average working capital ASWE would require for the first few months of operations.

4.3.5 EURO – DOLLAR CONVERSION

The cost of the EPC contract quoted above has been converted to US\$ figures, based on an exchange rate of 0.1462 US Dollar to 1.00 CNY. The actual EPC cost is subject to possible fluctuations in the exchange rate between the CNY (being the currency of EPC price) and the Dollar (being the currency for the funding of the EPC contract) at the time of the Project's financial closing. It is thus proposed that the reference tariffs be adjusted to the appropriate exchange rate at the time of financial closing.

4.4 Debt and Equity

4.4.1 Debt to Equity Ratio

A debt-to-equity ratio of 80:20 is envisaged for financing the Project. This is consistent with the financing profile of similar IPPs in Pakistan and elsewhere in the world.

4.4.2 Debt Profile

Based on the total project cost and the debt-to-equity ratio mentioned above, the total amount of debt financing is expected to be about US\$ 113.786 million, or Rs. 9,001.658 million. A one-year grace period, followed by a 10-year repayment period, is envisaged for the Project's debt, which reflects the typical term for similar IPP projects.

The nature of this Project, as one of the first major wind IPP in Pakistan, and the need for international expertise and technology (with an EPC contract denominated in foreign currency), call for the participation of experienced international banks that provide foreign currency debt. The debt financing for the Project is thus envisaged to be fully funded with foreign debt.

An annual interest rate of LIBOR plus 3.15% (about 6.03% based on the current LIBOR rate of around 2.88%) has been quoted by the international lenders interested in the Project. Given the pilot nature and risk profile of



the Project, such lenders are not likely to provide the required financing for the Project for a lower interest charge.

It should be noted that while a premium of 3.00% over KIBOR has been established as a precedent for local currency financing the thermal power projects in Pakistan, the same premium would not necessarily apply for foreign currency financing of a pilot wind project. Some reasons include: (i) the LIBOR does not reflect some of the country-specific macroeconomic risks that may be reflected in the KIBOR; and (ii) the financial risks of a pilot project may be perceived differently from thermal IPP projects that already have an established track record in the country, in any case, for the Project to be bankable, the tariffs will have to reflect a rate that is acceptable to the lenders.

The table below summarizes the details of the debt profile quoted by the lenders.

Table 6: Debt Profile of Project

Annual Interest Rate (LIBOR + 3.15%)	6.03%
Semi-Annual Interest Rate	3.015%
Front End Commission	1.80%
Annual Commitment Fee	0.50%
Repayment Period (in years excl. grace period)	10
Grace Period (in years)	1

4.4.3. Rate of Return

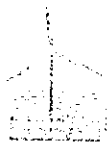
The proper revenue requirement must include a reasonable rate of return for equity investments. The proposed tariffs therefore include a fixed ROE component that has been set to yield a reasonable internal rate of return (IRR) for equity investments.

The proposed tariffs reflect an IRR of 15% in real terms, net of any withholding tax on dividends. This is inline with recent determinations by NEPRA for both conventional and renewable IPPs.

We have assumed that 100% equity will be funded in foreign currency (US\$).

4.4.4 Withholding Tax on Dividends

According to the income Tax Ordinance, 2001, income from dividends is subject to withholding tax (7.5% for power generation projects). Pursuant to international norm, the rate of return of 15% has been considered on the basis of dividends received after withholding tax. Thus, to ensure that the net return reflects a 15% IRR, the proper compensation for the withholding tax amount is required.



In accordance with NIPRA's recent decisions on new IPPs, it is proposed that the withholding tax be reimbursed separately from the tariffs, in the form of payments (by NTDC) on the account of the withholding tax at the time of the actual payment of dividends.

4.5. Operating Costs

4.5.1. Insurance

The fixed, annual insurance expense during the operation phase is estimated as US\$ 1.422 million, or Rs. 112.506 million, based on indicative quotes of international insurance brokers. It should be noted that the lenders will require insurance of the Project's assets on a replacement cost basis, which will necessarily be in foreign currency. Furthermore, it should be noted that, given the project cost (in foreign currency) and the lack of precedent; for wind power in Pakistan, local insurance companies are not in a position to adequately provide cover for this Project. The cost of the insurance is thus expected to be denominated in foreign currency (Dollars), since the underlying costs are based in foreign currency.

4.5.2 Fixed O&M Contract

The O&M contract for this Project will be handled by Nordex. Given the absence of experience with wind power in Pakistan, Nordex expertise in operating and maintaining wind power plants would be vital for this Project. Nordex will be responsible for all preventative and scheduled maintenance of all plant and equipment as per the manufacturer's recommendations. This is to ensure that the Plant remains available for reliable dispatch and for completing its contracted life.

4.5.3 Corporate and Administrative Costs

This represents the fixed cost of all the staff, plant administration, security, transportation, overhead, office costs, rent, utilities, professional fees such as audit, tax and legal, as well as other fixed operational cost that do not change with dispatch. As the site location is remote, extra security will need to be provided for and transportation costs will be significantly higher.

4.5.4 Variable O&M

This component primarily includes imported spare parts to be changed on normal scheduled and unscheduled maintenance. Also, it includes chemicals and oils, as well as specialized technical services from the manufacturer, during maintenance of the plant. The WTGs and associated equipment have manufacturer-recommended overhauling schedules that are based on actual running hours. The actual timing of the major overhauls depends on the actual output of the plant. The labor for the Variable O&M is included in the Fixed O&M contract with the supplier.

4.6. Comparative Costs

In order to compare the rate of generation being proposed by ASWE a comparison is shown below with various current tariffs being offered around the world:

Germany

The challenge for the Germans was how to determine the wind energy content of the site. They could have chosen to use wind speed measured by an anemometer. But anyone who has worked with wind resource assessment knows that this approach would be problematic. Again, the solution was elegant: actual wind generation from turbines on the site.

Thus, all wind turbines are paid the same tariff, T1, for the first five years of operation. After the first five years, a determination is made of the wind resource at the site by use of what the German calls the Reference Yield Method (Referenzertrag). They average production over the five years period and compare that of the same model of wind turbine with the projected generation at hypothetical site with a wind speed of 5.5 m/s at a height of 30 meters. This comparison is then used to determine how many months beyond the initial five-year period a wind generator will be paid the premium or T1 tariff. For an operator at a windy site that produces 150% of the Reference yield at the end of the five year period, the tariff falls to the second tier or tariff T2 for the years 6-20. The lower tariff is then paid for generation from years 6 through 20. For those at less windy sites, the premium payment is extended a number of months as function of the site's productivity.

In practice, the German system is less complicated than it sounds. However, the German system does require a sophisticated market where developers, consultants, and regulators thoroughly understand wind energy. Information on standard turbine models and their Reference Yields are posted on the web and openly accessible to everyone from meteorological consultants to farmers.

Advanced Renewable Tariffs in Germany Erneuerbare – Energien – Gesetz (EEG) 2006

	Years	Tariff €/kWh
Wind on Land	2006	
60% Reference Yield	20	0.084
70% Reference Yield	16.9	0.084
80% Reference Yield	15.4	0.084
90% Reference Yield	13.9	0.084
100% Reference Yield	12.4	0.084
110% Reference Yield	10.9	0.084



*Arabian Sea Wind Energy (Pvt) Ltd.
Tariff Petition*

120% Reference Yield	9.4	0.084
130% Reference Yield	8	0.084
140% Reference Yield	6.5	0.084
150% Reference Yield	5	0.084
All To Year 20		0.053

The above 100% reference yield tariff equates to a US cents tariff of 11 cents per kwh.

Spain:

An incentive was provided which was set at 50% of the average electricity tariff to supplement the market price of wind power. In addition a guaranteed minimum price of €0.071/kwh, linked to inflation is provided for.

Italy:

The Italian electricity regulators have set the certificate wind generation price for 2006 at €0.1258/kwh, an increase on 2005's €0.10892/kwh. This is in addition to the normal wind power price of €0.065/kwh. These certificates are issued for the first 12-years of production.

USA:

Production tax credits for Wind Power vary according to state from 0.5US cents to 4.0US cents per kwh. The detailed production credit approved by individuals states.

4.7 Indexation

The purpose of indexation is to remove any exposure of an investor to cost escalations, over the life of a project, over which it has no direct control. With that principle in mind, the following sections discuss the proposed indexation for various components of the tariff. Indexation formulae (Annexure I) have been prepared taking into account the guidelines presented in the Ministry of Water and Power/ Alternative Energy Development Board's "Guidelines for Determination of Tariff for Wind Power Generation 2006." At the time of financial close the tariff figures will be updated for the various base figures (e.g. EPC, O&M and Insurance prices, adjusted by actual exchange rates compared to the Reference Exchange Rates, and Interest During Construction adjusted by prevailing LIBOR and KIBOR, to arrive at the reference tariff table to be used in the PPA. At the COD, the tariff figures will be updated on the basis of actual interest incurred during construction and variations in the Reference Exchange Rate during construction.



4.7.1 Foreign Exchange

A foreign exchange indexation should be applied to those cost elements that are denominated in foreign currency (US\$/Euro). For these items, the investor will have no control over cost changes caused by exchange rate fluctuations, and these should therefore be passed through to the purchaser. The reference exchange rate being used is 64.68 Pak Rs./US\$ and 1.5456 US\$/Euro. For the proposed ASWE tariff structure, this implies that the following components should be indexed to variations in foreign exchange rates:

- Portions of the fixed and variable O&M components that are denominated in foreign currency;
- The debt service component. The Project debt is intended to be entirely foreign funded;
- The insurance component. Insurance, as discussed previously, will provide cover on a replacement cost basis, which will be incurred in foreign currency. Premiums will therefore, be constructed on that basis, and insurance costs will therefore fluctuate with exchange rate movements; and
- The portion of the R.OE component that reflects the equity investments in foreign currency.

Indexation for these components should be applied quarterly, on January 1, April 1, July 1, and October 1 on the basis of the TT & OD selling rate as notified by the National Bank of Pakistan (in Rs/US\$) and Reuters (US\$/Euro) in accordance with the indexation formulae (Annexure I).

4.7.2 LIBOR

The wind farm investor will have no direct control over changes in interest rates. Appropriate indexation should therefore be applied so that the interest charge portion of the debt service component of the tariff reflects changes in LIBOR. This portion should thus be adjusted quarterly for variation in the 3-month Dollar LIBOR as published by the British Bankers Association, in accordance with the indexation formulas (Annexure I).

4.7.3 Local Inflation

As with currency exchange rates and interest rates, a wind farm investor will not be able to influence local inflation. Appropriate indexation should therefore, be applied to reflect the portion of the tariff that is subject to local inflation. For the proposed ASWE tariff structure, the following components should be indexed to the local WPI:

- Corporate and Administrative Cost;



- The portion of the ROE component that reflects the equity investments in local currency (Rs.)

Indexation for these components should be applied quarterly, on the basis of CPI as notified by the Federal Bureau of Statistics (FBS) for the month of February, May, August and November, in accordance with the indexation formulas (Annexure I).

4.7.4 Foreign (US) Inflation

The Fixed O&M contract, Variable O&M and Insurance costs are denominated in foreign currency. These are recurrent costs whose amount will be affected by the home country inflation. It is thus proposed that these costs should be adjusted for US inflation as per the United States Consumer Price Index (USCPI) as published monthly by the United States Department of Labor.



5. Determination Sought

This Petition seeks a determination from NEPRA with respect to the following items:

- The Reference Tariff to remain effective for the period of 20-years from the date of commercial operation, as set out in Annex G.
- The approval of the proposed tariff indexations, as set out in Annex I.

5.2 Reference Tariff

The proposed Reference Tariff includes three components:

- The non-debt fixed cost component
- The debt service cost component and
- The variable operating and maintenance (O&M) cost component.

The Reference Tariff shown in Annex-G is equivalent to a levelized tariff over the proposed 20-year tariff control period of 13.121 US cents / kWh, or Rs. 10.3790/kWh. The Project's financial projections on the basis of the proposed tariffs are shown in Annex-II.

The specified tariff, alongwith the indexation, would set the maximum limits of rates at which ASWE can sell power to NTDC.

5.3 Tariff Indexation

Indexation of cost components of a tariff provides an investor certainty with regard to achieving its return on investment, by removing exposure to cost escalations over which the investor has no control. This approach is efficient and hence minimizes total cost. Commonly, indexation protects investors against risks arising from exchange rate fluctuations, and local inflation.

The proposed tariff indexation for the ASWE tariff is against various consumer price indexes (CPI), foreign exchange rates (FX), and LIBOR, on a quarterly basis. The proposed adjustments are consistent with those that have been approved for IPPs around the world.



6. Assumptions

- The following has been assumed while calculating the tariff. Changes in any of these assumptions will result in changes in the tariff:
- Any taxes (Federal, Provincial, Local or District), stamp duties and levies etc. not factored in the tariff calculation shall be treated as pass-through items in the PPA
- Any changes in the customs duties or any other duty or tax on import of equipment and material will be "pass through" to the Power Purchaser. Similarly, customs duties on spare parts after COD will be "pass through" to the Power Purchaser
- Only 6% withholding tax on local services assumed. No other taxes on payments to be made to the EPC contractor assumed. Any additional tax, if levied, will be "pass through" to the Power Purchaser
- 7.5% withholding tax on dividend assumed- Any changes in the aforesaid withholding tax regime will be "pass through" to the Power Purchaser. General Sales tax and all other taxes will also be treated as a "pass through"
- Zakat deduction on dividends (currently @ 2.5%), as required to be deducted under Zakat Ordinance, is considered as "pass through"
- Debt is assumed in foreign currency
- The Return on Equity for the construction and commissioning period shall be adjusted at the time of COD according to the actual Equity disbursement during such period
- Power purchaser/NTDC shall be exclusively responsible for the financing construction, operation and maintenance of the Interconnection and Transmission.
- Any modifications or additions required by the power purchaser that are not considered in the Project shall be treated as a pass through
- Exchange Rate (PKR/USD) is taken @ PKR 79.10 per USD.
- No cost or utilizing NTDC telecom media is assumed. Any costs incurred with regard thereto will be treated as "pass through".
- Main Energy meter and electronic recorder for continuous recording of readings will be provided by NTDC at its own cost.
- Tolerance band of $\pm 3\%$ in dispatch is assumed.



- No O&M Reserve, Maintenance Reserve Account, Contingency Reserve Account or any other Reserve account (except DSRA for 6-months) has been considered in the Tariff model. In case company is required to do so, the financial impact would be “pass through”
- No post-COD LC in favour of the Power Purchaser assumed.

ASSUMPTIONS				
Financial Assumptions				
Exchange Rate Schedule				
Prevailing Exchange Rates on January 04, 2008				
		CNY	USD	PKR
Chinese Yuan	CNY	1.0000	0.1462	11.5620
United States Dollar	USD	6.8414	1.0000	79.1000
Pakistan Rupee	PKR	0.0865	0.0126	1.0000
Capital Structure				
Equity	20%			
- Sponsor's Contribution		100%		
- Private Placement		0%		
- IPO		0%		
Debt	80%			
- Local - Bank		0%		
- Foreign - Supplier Credit		0%		
- Foreign - Bank 1		100%		
- Foreign - Bank 2		0%		
- Foreign - Bank 3		0%		
	100%			
Fund Raising Cost				
		Kibor / Libor	Spread	Total
Debt Financing				
Local - Bank		15.68%	3.15%	18.83%
Foreign - Supplier Credit		2.17%	3.15%	5.32%
Foreign - Bank 1		2.17%	3.15%	5.32%
Foreign - Bank 2		2.17%	3.15%	5.32%
Foreign - Bank 3		2.17%	3.15%	5.32%
Equity Financing				
Return on Equity				15.00%
Tax on Dividend				7.50%
Gross IRR				16.22%
Financial Cost				
Discount factor		10.00%		
Interest Rate on Deposits		10.00%		
Contingencies		0.00%	of EPC Cost	
Financial Consultants:				
Debt Arrangement Fee		1.00%	of Debt Amount	
Private Placement		1.00%	of Amount Privately Placed	
Initial Public Offer		1.00%	of IPO Value	
Bank / Financial Institutions:				
Structuring Fee		0.50%		
Arrangement Fee		1.00%		
Commitment Fee		0.50%	of Debt Amount	
Debt Lead Manager		0.30%	of Debt Amount	
Variable costs of IPO		5.50%	of IPO Value	
Initial Working Capital				
Expense Reserve	6.00		Months A&G Expenses	
Insurance Advance	12.00		Months Payment	
O & M Mobilization	6.00		Months O&M Expenses	
Debt Service Reserve Account (DSRA)	-		Months Debt Service	
Letter of Guarantee upon Issuance of LOI				
ISO Capacity [MW]	50.0			
Amount / kW [USD]	1		per kW installed	
L/G amount [USD]	25,000			
L/G Margin [%]	30%			
L/G Margin Amount [USD]	7,500			
L/G Opening Charges Rate		2%		

Amount		500	
Letter of Guarantee upon Issuance of LOS			
ISO Capacity [MW]		49.5	
Amount / kW [USD]		25	per kW installed
L/G amount [USD]		1,237,500	
L/G Margin [%]		30%	
L/G Margin Amount [USD]		371,250	
L/G Opening Charges			
Rate		2%	
Amount		24,750	
Letter of Credit upon Achieving Financial Close			
ISO Capacity [MW]		49.5	
Amount / kW [USD]		3	per kW installed
L/C amount [USD]		123,750	
L/C Margin [%]		30%	
L/C Margin Amount [USD]		37,125	
L/C Opening Charges			
Rate		2%	
Amount		2,475	
Letter of Credit upon Achieving COD			
ISO Capacity [MW]		49.5	
Amount / kW [USD]		35	per kW installed
L/C amount [USD]		1,732,500	
L/C Margin [%]		30%	
L/C Margin Amount [USD]		519,750	
L/C Opening Charges			
Rate		2%	
Amount		34,650	
Operations and Maintenance Expenses			
Lease Rental			
Agreement Year 1-10	PKR	500	Per acre per year
Agreement Year 11-20	PKR	1,000	Per acre per year
Agreement Year 20-25	PKR	2,000	Per acre per year
Fixed Maintenance Expenses			
Agreement Year 1-2	USD	0.050	per WTG per year
Agreement Year 3-5	USD	0.050	per WTG per year
Agreement Year 6-10	USD	0.050	per WTG per year
Agreement Year 11-20	USD	0.050	per WTG per year
Insurance Expense			
Project Insurance During Construction		1.50%	of EPC Cost
Project Insurance During Operations		1.00%	of Project Cost
Variable O & M Expense		5.00%	of Operator Fee
CAPEX Replacement	PKR	5.000	Million per annum average
Spare parts replenishment	USD	0.250	Million per annum average
Major Maintenance (Every 11th year)			
Foreign Component	USD	4.00%	of EPC Cost
Local Component	PKR	25.00%	of the foreign cost
Foreign Component		402.664	
Local Component		100.666	
Wind Farm De-commissioning			
De-commissioning Cost	USD	1.00%	of EPC Cost
De-commissioning Cost	PKR	0.50%	of EPC Cost
Salvage Value	PKR	0.50%	of EPC Cost
Operating Costs During Testing			
(Components and Costs)	USD	4.00	Months - Variable Costs
Depreciation			
Method			Straight Line
Rates:			
Plant and Machinery		4%	New plant
Plant and Machinery (2)		10%	Major maintenance
Other Assets		20%	
Amortization of Pre-operating costs		20%	

EXECUTIVE SUMMARY			
		USD	PKR
		----- Millions -----	
Total Project Cost			
EPC Costs		127.264	10,066.598
Project Development Costs		3.785	299.365
Operating Fixed Assets		0.373	29.500
Financial Charges		7.750	613.041
Other Project Costs		3.061	242.110
		142.233	11,250.614
Cost / MW [in millions]		2.873	227.285
Funding Structure			
Equity	20%	28.447	2,248.956
Debt	80%	113.786	9,001.658
	100%	142.233	11,250.614
Capital Structure			
Sponsor's Contribution	100%	28.447	2,248.956
Private Placement	0%	-	-
IPO	0%	-	-
	100%	28.447	2,248.956
Debt Structure			
Local Loan	0%	-	-
Supplier Credit	0%	-	-
Foreign Loan - I	100%	113.786	9,001.658
Foreign Loan - II	0%	-	-
Foreign Loan - III	0%	-	-
	100%	113.786	9,001.658
Returns and Costs on Funding			
Equity IRR of the Project			15.00%
Cost of Debt	Spread	LIBOR/KIBOR	
Local Loan	3.15%	15.68%	18.83%
Supplier Credit	3.15%	2.17%	5.32%
Foreign Loan - I	3.15%	2.17%	5.32%
Foreign Loan - II	3.15%	2.17%	5.32%
Foreign Loan - III	3.15%	2.17%	5.32%
Revenue			
		USD	PKR
		----- Millions -----	
Dividend Payout Per Annum		4.753	376.000
Estimated Annual Average Cash Flows		16.810	1,329.690
Payback Period		Years	5.98
Tariff			
		US Cents	PKR
Average Tariff		11.04113	8.73353
Levelized Tariff		13.12132	10.37897
Annual Energy Production			
		Unit	Values
Make / Model		Nordex	S77
Turbine Size		MW	1.500
Number of Turbines		Nos	33.000
Farm Gross Capacity		MW	49.500
Plant Factor		%	35.11%
Gross Deliverable Output		GWh	182.687
Net Deliverable Output		GWh	152.251

REFERENCE TARIFF

Annual Production: 152,2514 Gwh

Agreement Year	Variable O&M	Operations and Maintenance		Return on Equity		Reference Foreign Debt Services		Reference Local Debt Service		Total Tariff	
		Foreign Component	Local Component	ROE	Tax	Principal	Interest	Principal	Interest	Rs./Kwh	₹/Kwh
1	0.0427	1.7238	0.2759	2.4696	0.1852	4.6077	3.0545	-	-	12.3594	15.6250
2	0.0427	1.7238	0.2759	2.4696	0.1852	4.8578	2.8044	-	-	12.3594	15.6250
3	0.0427	1.7238	0.2759	2.4696	0.1852	5.1214	2.5408	-	-	12.3594	15.6250
4	0.0427	1.7238	0.2759	2.4696	0.1852	5.3954	2.2828	-	-	12.3594	15.6250
5	0.0427	1.7238	0.2759	2.4696	0.1852	5.6924	1.9698	-	-	12.3594	15.6250
6	0.0427	1.7238	0.2759	2.4696	0.1852	6.0013	1.6609	-	-	12.3594	15.6250
7	0.0427	1.7238	0.2759	2.4696	0.1852	6.3270	1.3352	-	-	12.3594	15.6250
8	0.0427	1.7238	0.2759	2.4696	0.1852	6.6704	0.9918	-	-	12.3594	15.6250
9	0.0427	1.7238	0.2857	2.4696	0.1852	7.0324	0.6298	-	-	12.3692	15.6375
10	0.0427	1.7238	0.2857	2.4696	0.1852	7.4140	0.2481	-	-	12.3692	15.6375
11	0.0427	4.3685	0.9469	2.4696	0.1852	-	-	-	-	8.0130	10.1302
12	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
13	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
14	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
15	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
16	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
17	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
18	0.0427	1.7238	0.2857	2.4696	0.1852	-	-	-	-	4.7070	5.9507
19	0.0427	1.7238	0.2956	2.4696	0.1852	-	-	-	-	4.7169	5.9632
20	0.0427	2.3949	0.2956	2.4696	0.1852	-	-	-	-	5.3781	6.7991
										Levelized Energy Price:	13.1213

Average Tariff [1 - 10 yrs] - PKR / Kwh	12.3613	Average Tariff [1 - 10 yrs] - USD Cents / Kwh	15.6275
Average Tariff [11 - 20 yrs] - PKR / Kwh	5.1057	Average Tariff [11 - 20 yrs] - USD Cents / Kwh	6.455
Average Tariff [1 - 20 yrs] - PKR / Kwh	8.7335	Average Tariff [1 - 20 yrs] - USD Cents / Kwh	11.041
Levelised Tariff - PKR / Kwh	10.3790	Levelised Tariff - USD Cents / Kwh	13.121
Discount Rate	10.00%		
Total No. of Years	20		

Cash Flow Statement

Year	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14	Year 15	Year 16	Year 17	Year 18	Year 19	Year 20
Revenue	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723	1,881,723
Operating Expenses																				
Operator Fees	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163	130,163
Variable O&M	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508	6,508
Insurance	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506	112,506
Spares Replacement	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775	19,775
Payroll Expenses	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Other Admin Expenses	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000	12,000
Line Lease Costs	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952	308,952
Total O&M	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775	1,575,775
CAPEX																				
Fixed Asset Replacement	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Majr Maintenance	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Total CAPEX	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000
Debt Service	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576
Foreign Loan	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576
Local Loan	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Debt Service	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576	1,166,576
Dividends	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200
Tax on Dividends	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200	28,200
Excess / Short of Revenue	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200	404,200
Average Annual Revenue	1,329,891																			

Rupess In Millions

Year 19

Year 20

813,316

509,866