



Registrar

National Electric Power Regulatory Authority

Islamic Republic of Pakistan

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No. NEPRA/TRF-363/OSPL-2016/10469-10471
July 22, 2016


Subject: Approval of National Electric Power Regulatory Authority in the matter of Application of Oursun Pakistan Limited for Unconditional Acceptance of Upfront Tariff for 50 MW Solar PV Power Plant [Case No. NEPRA/TRF-363/OSPL-2016]

Dear Sir,

Please find enclosed herewith the subject Approval of the Authority along with Annexure-I & II (08 pages) in Case No. NEPRA/TRF-363/OSPL-2016.

2. The Decision is being intimated to the Federal Government for the purpose of notification of the approved tariff in the official gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997).
3. Order of the Authority along with Annexure-I & II of the Approval will be notified in the official Gazette.

Enclosure: As above


(Syed Safeer Hussain)

Secretary
Ministry of Water & Power
'A' Block, Pak Secretariat
Islamabad

CC:

1. Secretary, Cabinet Division, Cabinet Secretariat, Islamabad.
2. Secretary, Ministry of Finance, 'Q' Block, Pak Secretariat, Islamabad.



**APPROVAL OF NATIONAL ELECTRIC POWER REGULATORY AUTHORITY IN THE MATTER
OF APPLICATION OF OURSUN PAKISTAN LIMITED FOR UNCONDITIONAL ACCEPTANCE OF
UPFRONT TARIFF FOR 50 MW SOLAR PV POWER PLANT**

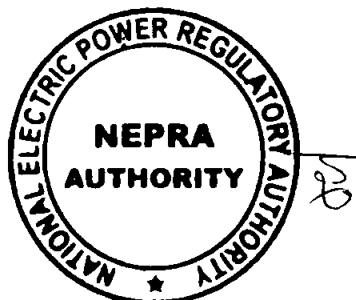
1. Oursun Pakistan Limited (hereinafter "OSPL") submitted an application vide letter dated 15th June 2016 under NEPRA Upfront Tariff (Approval and Procedure) Regulations, 2011 (hereinafter "Upfront Tariff Regulations") for unconditional acceptance of upfront solar tariff for 50 MW determined by the National Electric Power Regulatory Authority (hereinafter "The Authority") vide its determination dated 16th December 2016 notified vide SRO No. 1243(I)/2015 dated 17th December 2015 with all the terms, conditions and assumptions provided therein (hereinafter "Upfront Tariff Determination"), for its proposed Solar PV power plant of 50 MW located at Gharo, Sindh coastal Highway, District Thatta, in the Province of Sindh.
2. The application was processed in accordance with the relevant provisions of Upfront Tariff Regulations and Upfront Tariff Determination. The Applicant provided all necessary and relevant information/documents and was considered eligible for grant of Upfront Tariff determination. Accordingly, the Authority has decided to grant the upfront solar tariff for 50 MW for South Region to the applicant. OSPL has filed an application for the grant of Generation License vide letter dated 19th February 2016 which is under process.
3. In terms of applicable terms and conditions of Upfront Tariff determination, OSPL shall achieve the financial close within one year from the date of opting the upfront tariff and in case of failure of OSPL to achieve financial close within stipulated time or generation license is declined to the applicant, the granted upfront tariff will no longer remain applicable/valid.
4. **ORDER**
 - I. The Authority hereby determines and approves the following upfront tariff for Oursun Pakistan Limited and adjustments/indexations for solar power generation for delivery of electricity to the power purchaser based on solar PV power plant of 50 MW located at Gharo, Sindh coastal Highway, District Thatta, in the Province of Sindh.

Specified Reference Tariff

SOUTH REGION

Description	Year 1-10	Year 11-25	Indexations
	Rs./kWh	Rs./kWh	
O&M	1.7674	1.7674	CPI , US CPI, PKR/US\$
Insurance	0.7277	0.7277	Actual on annual basis
ROE	3.6745	3.6745	PKR/US\$
Debt Servicing	7.6536	-	PKR/US\$ & LIBOR/KIBOR
Total Tariff	13.8232	6.1696	

- i. The detailed tariff table and debt service schedule is attached as Annex I and Annex II.
- ii. The debt servicing component shall be paid in 1-10 years only.



II. ONE TIME ADJUSTMENT AT COD

- i) Since the exact timing of payment to EPC contractor is not known at this point of time, therefore, an adjustment for the relevant foreign currency fluctuation for the 90% of the EPC portion of payment in the foreign currency will be made against the reference exchange rate of Rs. 105/US\$ on the basis of monthly average exchange rates prevailing on 1st day of each month during the construction period. The adjustment shall be made only for the currency fluctuation against the reference parity values.
- ii) Interest during construction will be reestablished on the basis of actual project financing and weighted average quarterly LIBOR/KIBOR and applicable premiums 4.5% and 3% respectively. Saving in premium shall be shared in the ratio of 60:40 between power purchaser and power producer.
- iii) In case Sinasure fee or export credit agency fee on foreign financing is payable, the benchmark established in the coal upfront tariff will be applicable subject to maximum of 7% and appropriate adjustment in the project cost shall be made.

III. ADJUSTMENT IN INSURANCE AS PER ACTUAL

The actual insurance cost for the minimum cover required under contractual obligations with the Power Purchaser not exceeding 1% of the EPC cost will be treated as pass-through. Insurance component of reference tariff shall be adjusted annually as per actual upon production of authentic documentary evidence according to the following formula:

AIC	=	$Ins_{(Ref)} / P_{(Ref)} * P_{(Act)}$
Where		
AIC	=	Adjusted Insurance Component of Tariff
$Ins_{(Ref)}$	=	Reference Insurance Component of Tariff
$P_{(Ref)}$	=	Reference Premium 1% of the EPC cost at Rs. 105/US\$.
$P_{(Act)}$	=	Actual Premium or 1% of the EPC cost in Pak Rupees on exchange rate prevailing on the 1st day of the insurance coverage period whichever is lower

IV. INDEXATIONS:

The following indexations shall be applicable to the reference tariff;

i) INDEXATION OF RETURN ON EQUITY (ROE)

After COD, ROE component of tariff will be quarterly indexed on account of variation in PKR/US\$ parity according to the following formula:

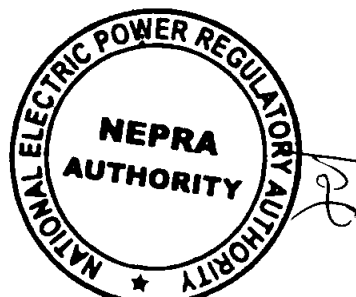


$ROE_{(Rev)}$	=	$ROE_{(Ref)} * ER_{(Rev)} / ER_{(Ref)}$
Where;		
$ROE_{(Rev)}$	=	Revised ROE Component of Tariff
$ROE_{(Ref)}$	=	ROE Component of Tariff established at the time of COD
$ER_{(Rev)}$	=	The revised TT & OD selling rate of US dollar as notified by the National Bank of Pakistan
$ER_{(Ref)}$	=	Reference Exchange Rate at the time of COD

ii) **INDEXATION APPLICABLE TO O&M**

The O&M component of tariff will be adjusted on account of local Inflation (CPI) and foreign inflation (US CPI) and exchange rate quarterly on 1st July, 1st October, 1st January and 1st April based on the latest available information with respect to CPI notified by the Pakistan Bureau of Statistics (PBS), US CPI issued by US Bureau of Labor Statistics and revised TT & OD selling rate of US Dollar notified by the National Bank of Pakistan as per the following mechanism:

$L\ O\&M_{(REV)}$	=	70% of $O\&M_{(REF)} * CPI_{(REV)} / CPI_{(REF)}$
$F\ O\&M_{(REV)}$	=	30% of $O\&M_{(REF)} * US\ CPI_{(REV)} / US\ CPI_{(REF)} * ER_{(REV)} / ER_{(REF)}$
Where:		
$L\ O\&M_{(REV)}$	=	the revised applicable Local O&M Component of tariff
$F\ O\&M_{(REV)}$	=	the revised applicable Foreign O&M Component of tariff
$O\&M_{(REF)}$	=	the reference O&M component of tariff is Rs. 1.7674/kWh
$CPI_{(REV)}$	=	the revised Consumer Price Index (General) published by Pakistan Bureau of Statistics.
$CPI_{(REF)}$	=	the reference Consumer Price Index (General) of 201.620 for the month of July 2015
$US\ CPI_{(REV)}$	=	the revised US CPI (All Urban Consumers) published by US Bureau of Labor Statistics
$US\ CPI_{(REF)}$	=	the reference US CPI (All Urban Consumers) of 238.654 for the month of July 2015
$ER_{(REV)}$	=	the revised TT & OD selling rate of US dollar published by National Bank of Pakistan
$ER_{(REF)}$	=	the reference TT & OD selling rate of RS. 105/US dollar





iii) **INDEXATION FOR LIBOR VARIATION**

The interest part of fixed charge component will remain unchanged throughout the term except for the adjustment due to variation in interest rate as a result of variation in 3 months LIBOR according to the following formula;

ΔI	=	$P_{(REV)} * (LIBOR_{(REV)} - 0.31\%) / 4$
Where:		
ΔI	=	the variation in interest charges applicable corresponding to variation in 3 months LIBOR. ΔI can be positive or negative depending upon whether $LIBOR_{(REV)}$ is $>$ or $<$ 0.31%. The interest payment obligation will be enhanced or reduced to the extent of ΔI for each quarter under adjustment applicable on quarterly basis.
$P_{(REV)}$	=	The outstanding principal (as indicated in the attached debt service schedule to this order) on a quarterly basis on the relevant quarterly calculation date. Period 1 shall commence on the date on which the 1 st installment is due after availing the grace period.

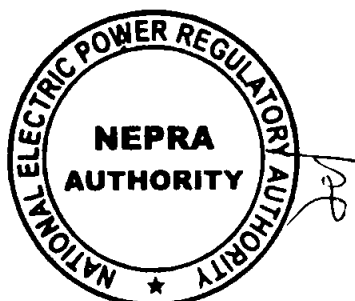
V. **TERMS AND CONDITIONS OF TARIFF**

The above tariff and terms and conditions, stipulated hereunder, shall be incorporated in the Energy Purchase Agreement between the Power Purchaser and the Power Producer:

- All plant and equipment shall be new and shall be designed, manufactured tested and certified against quality and safety in accordance with the applicable IEC or other relevant standards.
- The verification of the new machinery will be done by the independent engineer at the time of the commissioning of the plant duly verified by the power purchaser.
- Capacity Utilization Factors for South region will be 18%.
- In case the actual output exceeds the minimum output, the excess energy shall be charged in accordance with the following mechanism:

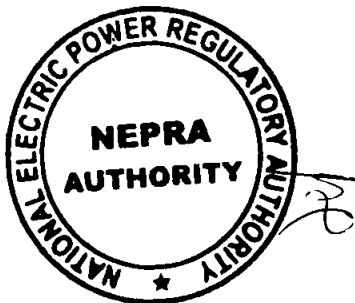
Net Annual Plant Capacity Factors	% of the prevalent tariff
Above 18% to 19%	80%
Above 19% to 20%	90%
Above 20%	100%

- The risk of lower solar irradiation will be on the power producer.





- vi. The applicant will have to achieve financial close within one year from the date of approval of the upfront tariff in favor of the applicant. The upfront tariff granted to the applicant will no longer remain applicable/valid, if financial close is not achieved by the applicant within the stipulated time or generation license is declined to the applicant.
- vii. The tariff control period will be 25 years from the date of commercial operation.
- viii. The dispatch will be at appropriate voltage level from 11kV to 220kV mutually agreed between the power purchaser and the power producer.
- ix. The targeted maximum construction period after financial close is 10 months. No adjustment will be allowed in this tariff to account for financial impact of any delay in project construction. However, the failure of the applicant to complete construction within the stipulated time will not invalidate the tariff granted to it.
- x. The impact of degradation has been accounted for in the tariff and there shall be no separate payment on account of degradation during the entire term of the tariff control period.
- xi. Pre COD sale of electricity to the power purchaser, if any, shall be allowed subject to the terms and conditions of EPA, at the applicable tariff excluding principal repayment of debt component and interest component.
- xii. In the Upfront Tariff no adjustment for certified emission reductions has been accounted for. However, upon actual realization of carbon credits, the same shall be distributed between the power purchaser and the power producer in accordance with the Policy for Development of Renewable Energy for Power Generation 2006, as amended from time to time.
- xiii. The decision to opt for upfront tariff once exercised will be irrevocable.
- xiv. Debt part of the project financing has been assumed on foreign financing. However, the debt part of the project can also be financed through local financing or mix of local and foreign financing and the debt servicing component will be adjusted accordingly.
- xv. The adjustment/indexation of upfront tariff will be made on the basis of benchmarks assumed by the Authority for Upfront Tariff in accordance with the indexation mechanism stipulated herein above and respective Upfront Tariff will be applicable to the solar PV projects coming under the Upfront Tariff regime. No project specific adjustments shall be taken into account.
- xvi. In case the company is obligated to pay any tax on its income from generation of electricity, or any duties and/or taxes, not being of refundable nature, are imposed on the company, the exact amount paid by the company on these accounts shall be reimbursed on production of original

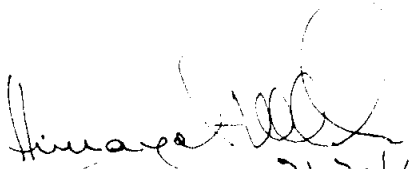






receipts. This payment shall be considered as a pass-through payment spread over a period of twelve months. However, withholding tax on dividend will not be passed through.

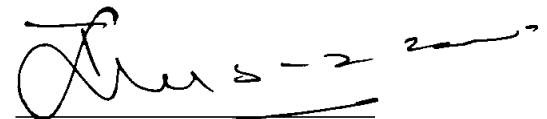
- xvii. General assumptions, which are not covered in this determination and National Electric Power Regulatory Authority Upfront Tariff (Approval & Procedure) Regulations, 2011, may be dealt with as per the standard terms of the Energy Purchase Agreement. \
- xviii. The provisions of the Order of the Authority issued vide No. NEPRA/UTS-2015/5229-5231 dated 19th April 2016 will also apply in the matter as and where applicable.
5. The above Order of the Authority along with 2 Annexes shall be notified in the Official Gazette in terms of Section 31(4) of the Regulations of Generation, Transmission and Distribution of Electric Power Act, 1997.

AUTHORITY

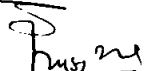

(Himayat Ullah Khan)
Vice Chairman


(Masood-ul-Hassan Naqvi) 21/7/16.
Member


(Maj (R) Haroon Rashid)
Member


(Brig (R) Tariq Saddozai)
Chairman



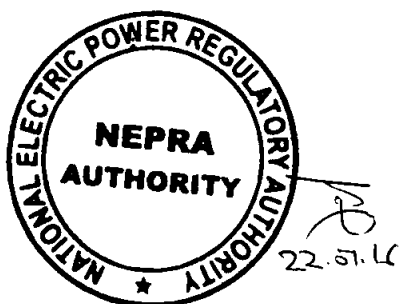

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Oursun Pakistan Limited

Reference Tariff Table (South)

Year	O&M	Insurance	Return on Equity	Debt Servicing	Total Tariff	
	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kWh	Rs./kWh	¢ per kWh
1	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
2	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
3	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
4	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
5	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
6	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
7	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
8	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
9	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
10	1.7674	0.7277	3.6745	7.6536	13.8232	13.1650
11	1.7674	0.7277	3.6745	-	6.1696	5.8758
12	1.7674	0.7277	3.6745	-	6.1696	5.8758
13	1.7674	0.7277	3.6745	-	6.1696	5.8758
14	1.7674	0.7277	3.6745	-	6.1696	5.8758
15	1.7674	0.7277	3.6745	-	6.1696	5.8758
16	1.7674	0.7277	3.6745	-	6.1696	5.8758
17	1.7674	0.7277	3.6745	-	6.1696	5.8758
18	1.7674	0.7277	3.6745	-	6.1696	5.8758
19	1.7674	0.7277	3.6745	-	6.1696	5.8758
20	1.7674	0.7277	3.6745	-	6.1696	5.8758
21	1.7674	0.7277	3.6745	-	6.1696	5.8758
22	1.7674	0.7277	3.6745	-	6.1696	5.8758
23	1.7674	0.7277	3.6745	-	6.1696	5.8758
24	1.7674	0.7277	3.6745	-	6.1696	5.8758
25	1.7674	0.7277	3.6745	-	6.1696	5.8758
Levelized	1.7674	0.7277	3.6745	5.1810	11.3506	10.8101

Installed Capacity (MWp)	50.000
Minimum Annual Energy (GWh)	78.840
CPI (General) July 2015	201.620
US CPI (All Urban Consumers) July 2015	238.654
Exchange Rate (Rs./US\$)	105.000



Oursun Pakistan Limited
Debt Servicing Schedule

Period	Foreign Debt					Annual Principal Repayment	Annual Interest	Annual Debt Servicing
	Principal	Repayment	Mark-up	Balance	Debt Service			
	US\$/MW	US\$/MW	US\$/MW	US\$/MW	US\$/MW			
1	908,153	17,813	10,921	890,340	28,734	4.83	2.82	7.6536
	890,340	18,027	10,706	872,312	28,734			
	872,312	18,244	10,490	854,068	28,734			
	854,068	18,464	10,270	835,604	28,734			
	908,153	72,549	42,387	835,604	114,935			
	835,604	18,686	10,048	816,919	28,734			
	816,919	18,910	9,823	798,008	28,734			
2	798,008	19,138	9,596	778,871	28,734	5.07	2.59	7.6536
	778,871	19,368	9,366	759,503	28,734			
	835,604	76,102	38,834	759,503	114,935			
	759,503	19,601	9,133	739,902	28,734			
	739,902	19,836	8,897	720,065	28,734			
	720,065	20,075	8,659	699,990	28,734			
	699,990	20,316	8,417	679,674	28,734			
3	759,503	79,829	35,107	679,674	114,935	5.32	2.34	7.6536
	679,674	20,561	8,173	659,113	28,734			
	659,113	20,808	7,926	638,305	28,734			
	638,305	21,058	7,676	617,247	28,734			
	617,247	21,311	7,422	595,936	28,734			
	679,674	83,738	31,197	595,936	114,935			
	595,936	21,568	7,166	574,368	28,734			
4	574,368	21,827	6,907	552,541	28,734	5.58	2.08	7.6536
	552,541	22,089	6,644	530,452	28,734			
	530,452	22,355	6,379	508,096	28,734			
	595,936	87,839	27,096	508,096	114,935			
	508,096	22,624	6,110	485,473	28,734			
	485,473	22,896	5,838	462,577	28,734			
	462,577	23,171	5,562	439,405	28,734			
5	439,405	23,450	5,284	415,955	28,734	5.85	1.80	7.6536
	508,096	92,141	22,794	415,955	114,935			
	415,955	23,732	5,002	392,223	28,734			
	392,223	24,017	4,716	368,206	28,734			
	368,206	24,306	4,428	343,900	28,734			
	343,900	24,598	4,135	319,301	28,734			
	415,955	96,654	18,281	319,301	114,935			
6	319,301	24,894	3,840	294,407	28,734	6.14	1.52	7.6536
	294,407	25,194	3,540	269,214	28,734			
	269,214	25,497	3,237	243,717	28,734			
	243,717	25,803	2,931	217,914	28,734			
	319,301	101,387	13,548	217,914	114,935			
	217,914	26,113	2,620	191,801	28,734			
	191,801	26,427	2,306	165,373	28,734			
7	165,373	26,745	1,989	138,628	28,734	6.44	1.22	7.6536
	138,628	27,067	1,667	111,561	28,734			
	217,914	106,353	8,582	111,561	114,935			
	111,561	27,392	1,342	84,169	28,734			
	84,169	27,722	1,012	56,447	28,734			
	56,447	28,055	679	28,392	28,734			
	28,392	28,392	341	(0)	28,734			
10	111,561	111,561	3,374	(0)	114,935	7.43	0.22	7.6536

