

National Electric Power Regulatory Authority Islamic Republic of Pakistan

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No. NEPRA/TRF-232/SKHPL-2013/8602-8604 July 22, 2014

Subject:

Decision of the Authority in the matter of Motion for Leave for Review filed by S. K. Hydro (Pvt.) Ltd. (SKHPL) against Determination of the Authority dated March 28, 2014 [Case No. NEPRA/TRF-232/SKHPL-2013]

Dear Sir,

In continuation of this office letter No. NEPRA/TRF-232/SKHPL-2013/3036-3038 dated March 28, 2014 whereby determination of the Authority in the matter of Tariff Petition filed by S.K. Hydro (Private) Ltd. for Determination of Generation Tariff in respect of 870.25 MW Suki Kinari Hydropower Project was sent. Please find enclosed herewith the decision of the Authority along with Annex-III (05 pages) in the matter of Motion for Leave for Review filed by S.K. Hydro (Pvt.) Ltd. against NEPRA's determination dated 28.03.2014 in Case No. NEPRA/TRF-232/SKHPL-2013.

- 2. The Decision of the Authority is being intimated to the Federal Government for the purpose of notification in the official Gazette pursuant to Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997) read with Rule 16(11) of the National Electric Power Regulatory Authority Tariff (Standards and Procedure) Rules, 1998.
- 3. Please note that only Order of the Authority at para 5 of the Decision along with Annex-III needs to 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 Block, Islamabad.

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

<u>Decision of the Authority in the matter of Motion for Leave for Review filed by SK Hydro (Pvt) Limited</u> <u>against determination of the Authority dated March 28, 2014.</u>

SK Hydro (Pvt) Limited (hereinafter referred to as "SKHPL" or the "Petitioner") filed a Motion for Leave for Review (hereinafter referred to as "Review Petition") under Rule 16(6) of the NEPRA Tariff (Standards and Procedure) Rules 1998, against Determination of the Authority in respect of 870.25 MW Suki Kinari Hydropower Project issued on March 28, 2014. The Authority admitted the Review Petition and decided to hold hearing in the matter. Accordingly written notices were sent to the interested/affected stakeholders for participation and comments either in favor or against the Review Petition. The hearing of the Review Petition was held on June 17, 2014 which was attended by the Petitioner, and other stakeholders. However, no objection was raised by any of the stakeholders on the review petition either before or during the hearing.

- 2. The Petitioner through its review petition has referred to typographical errors contained in the determination of the Authority issued on March 28, 2014 and has requested for rectification of the followings;
- i) The Petitioner at Para 3 (a) of review petition has requested for correction of the figure of net capacity at Para 5.4 along with necessary amendment in text and Para 10 (i) of the determination of the Authority whereby it has been erroneously mentioned as 861.0 MW instead of 861.548 MW.
- ii) The Petitioner at Para 3 (b) of review petition has requested that the reference tables containing cost of tunnels for the assumed rock type may be inserted in the order of the Authority for the purpose of clarity.
- iii) The Petitioner at Para 3(c) has pointed out a typographical error with regard to the figure of LIBOR in the formula at sub-clause iv of Clause IV of Para 10 of the determination of the Authority, which has been erroneously mentioned as 0.73% instead of 0.41326%.
- 3. The Authority has considered the request of the Petitioner and has observed that the figures of net capacity and LIBOR have been incorrectly stated in the determination as pointed out by the Petitioner. The Authority also observed that the already approved reference tariff for the Petitioner has been calculated on the basis of correct numbers of net capacity and LIBOR and therefore is not affected due to rectification of errors as pointed out by the Petitioner.
- 4. The Authority has also considered the Petitioner's request as mentioned at Para 2(ii) above and finds that it has already approved adjustment of cost of tunnels due to variation in actual rock type over the assumed rock type in its determination at Para 6.13. However the same has not been reflected in the order of the Authority at Para 10 of its determination. The Authority considers that the Petitioner's request for inclusion of reference tables containing cost of tunnels for future adjustment on the basis of actual rock type, needs to be clarified in the order of the Authority and therefore accepts the Petitioner's request in this behalf.

<u>Order</u>

5. In view of the aforementioned, the Authority, in exercise of its powers under section 7(2)(g) of the Regulation of Generation, Transmission and Distribution of Electric Power Act (XL of 1997), read with Rule 16(11) of the NEPRA Tariff (Standards and Procedure) Rules 1998, has decided to amend its





earlier determination for SK Hydro (Pvt) Limited in case No. NEPRA/TRF-232/SKHPL-2013 dated March 28, 2014 as follows.

- i) The figures of net capacity (861.0 MW) appearing in the last sentence of Para 5.4 and as mentioned at Para 10(i) of the determination may be substituted with 861.548 MW.
- ii) The words "after accounting for the allowed 1.00% auxiliary consumption" be inserted after the text 'MW' and before beginning of text 'subject to the condition' in the last sentence of Para 5.4 of the determination.
- iii) The figure of LIBOR (0.73%) appearing in the formula at sub-clause iv of Clause IV of Para 10 of the determination may be substituted with 0.41326%.
- iv) The following new sub-clause (o) may be inserted after sub-clause (n) of Clause I under Para 10 of the determination. The existing sub-clause (o) may be read as sub-clause (p).
 - " The reference cost of tunnels will be adjusted due to variation in geology of actual rock type over the reference rock type for each tunnel as given in the reference tables (a-j) attached herewith as Annex-III"
- v) Reference tables (a-j) containing cost of tunnels for different rock types be included in the determination as Annex-III.

The order at paragraph 5 is recommended for notification by the Federal Government in the official gazette in accordance with Section 31(4) of the Regulation of Generation, Transmission and Distribution of Electric Power Act, 1997.

Authority

Khawaja Mohammad Naeem

Member

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Maj (Rtd) Haroon Rashid

Member

<u>Habibullah Khilji</u> Vice Chairman

> NEPRA AUTHORITY

22.07.14

Annex-III

a. Head Race Tunnel

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	2,730.00	702,449	1,917,685,224
2&2a	12. 5> Q > 1	10,725.00	889,165	9,536,290,335
3	1 > Q > 0.1	4,095.00	1,064,777	4,360,260,996
4	0.1 >Q>0.02	975.00	1,507,752	1,470,058,200
5	0.02 > Q > 0.04	585.00	1,852,743	1,083,854,538
6	Q < 0.04	390.00	2,453,409	956,829,354
	Total	19,500.00		19,324,978,647

b. 3 m Diameter Head Race Tunnel

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	28.14	332,231	9,348,992
2&2a	12. 5> Q > 1	110.55	345,088	38,149,501
3	1 > Q > 0.1	42.21	426,222	17,990,848
4	0.1 >Q>0.02	10.05	524,596	5,272,194
5	0.02 > Q > 0.04	6.03	710,241	4,282,752
6	Q < 0.04	4.02	1,055,426	4,242,814
	Total	201.00		79,287,100

c. 3 m Diameter Vertical Head Race Tunnel

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	231.00	338,757	78,252,913
2&2a	12. 5> Q > 1	907.50	355,510	322,625,325
3	1 > Q > 0.1	346.50	421,937	146,201,101
4	0.1 >Q>0.02	82.50	433,722	35,782,082
5	0.02 > Q > 0.04	49.50	433,722	21,469,249
6	Q < 0.04	33.00	444,144	14,658,307
	al for 2 Tunnels	1650.00		618,988,976

d 3 m Diameter Horizontal Head Race Tunnel (Left)

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	5.18	254,896	1,320,360
2&2a	12. 5> Q > 1	20.35	264,051	5,373,446
3	1 > Q > 0.1	7.77	332,231	2,581,438
4	0.1 >Q>0.02	1.85	425,151	786,529
5	0.02 > Q > 0.04	1.11	512,616	569,004
6	Q < 0.04	0.74	752,025	556,499
	Total	37.00		11,187,276



e. 3m Diameter Horizontal Head Race Tunnel (Right)

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	4.20	357,555	1,501,733
2&2a	12. 5> Q > 1	16.50	370,412	6,111,801
3	1 > Q > 0.1	6.30	465,962	2,935,558
4	0.1 >Q>0.02	1.50	596,283	894,424
5	0.02 > Q > 0.04	0.90	719,007	647,106
6	Q < 0.04	0.60	1,054,842	632,905
	Total	30.00		12,723,528

f. 2.12 m Diameter Head Race Tunnel leading to Powerhouse

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	22.40	196,066	4,391,883
2&2a	12. 5> Q > 1	88.00	202,982	17,862,381
3	1 > Q > 0.1	33.60	260,642	8,757,585
4	0.1 >Q>0.02	8.00	269,019	2,152,150
5	0.02 > Q > 0.04	4.80	294,440	1,413,313
6	Q < 0.04	3.20	475,215	1,520,687
Total	for four Tunnels	160.00		36,097,998

g. Tail Race Tunnels- Classification of Ground Conditions

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	787.36	776,960	611,747,068
2&2a	12. 5> Q > 1	704.48	861,113	606,637,168
3	1 > Q > 0.1	787.36	948,579	746,872,846
4	0.1 >Q>0.02	978.10	1,341,880	1,312,492,632
5	0.02 > Q > 0.04	497.28	1,488,564	740,233,205
6	Q < 0.04	568.72	2,922,974	1,662,353,773
Total for one Tunnel		4323.30		5,680,336,694
Total	for two Tunnels	8,646.59		11,360,673,387

h. 7m x 8m Tunnel

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	0	0	0
2&2a	12. 5> Q > 1	0	0	0
3	1 > Q > 0.1	2132.00	816,115	1,739,956,327
4	0.1 >Q>0.02	0	0	0
5	0.02 > Q > 0.04	0	0	0
6	Q < 0.04	0	0	0
	Total	2,132.00		1,739,956,327



i. 7.6m x 13m Tunnel

Class	Q –Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	791.92	802,381	635,421,720
2&2a	12.5> Q > 1	708.56	975,558	691,241,660
3	1 > Q > 0.1	791.92	1,196,754	947,733,269
4	0.1 >Q>0.02	833.60	1,638,950	1,366,228,553
5	0.02 > Q > 0.04	500.16	2,814,276	1,407,588,084
6	Q < 0.04	571.84	5,006,847	2,863,115,388
	Total	4,198.00		7,911,328,675

i. Tunnel to Guard Valve Chamber

Class	Q-Value	Length (m)	Unit Rate /Meter (Rs.)	Amount (Rs.)
1	Q >12.5	42.00	323,952	13,606,001
2&2a	12. 5> Q > 1	165.00	375,185	61,905,492
3	1 > Q > 0.1	63.00	434,599	27,379,724
4	0.1 >Q>0.02	15.00	746,961	11,204,409
5	0.02 > Q > 0.04	9.00	892,671	8,034,039
6	Q < 0.04	6.00	2,167,345	13,004,069
	Total	300.00		135,133,734

