

No.Ft. 48-1747/2008 (FCA),
Forest Department, Himachal Pradesh.

From: Nodal Officer-cum-APCCF (FCA)
O/o Pr. CCF. H.P. Shimla

To: The Addl.Pr. Chief Conservator of Forests (Central)
Regional Office, Govt. of India, Ministry of Environment & Forests,
Pearson Road, FRI Campus, P.O. New Forests,
Dehradun-248006.

Dated Shimla-1, the 16 JUN 2016

Subject: **Diversion of 1.634 ha of forest land in favour of M/s Shakti Hydro Electric Company Ltd., 204 Madan Lal Cowk Asiad Village Khel Gaon, New Delhi for the construction of approach road to 3.5 MW Project Laying of Transmission Line & Drift within the jurisdiction of Nachan Forest Division, Distt. Mandi, Himachal Pradesh.**

Sir,

Kindly refer to your office letter No. 08B/HPB/06/42/2015-2272 dated 13.01.2016 on the subject cited above.

2. The pointwise reply of the observations as raised vide above referred communication is submitted as below:-

1. In this regard, user agency has informed that earlier proposal which was prepared in 03.05.2006 and submitted on 08.05.2008. Considering the situation at that time the proposal was well thought off and comprehensive. However, since then situation has change in many respects. New development in the form of new houses and building has taken place. Old proposals of roads under consideration of local bodies have not yet materialized. Change in alignment of transmission line is unavoidable now as new houses have been constructed in the old aligbment. Road to trench was not considered in earlier proposal because then village panchayat has a plan to construct a road in that area to approach the field areas and further development of that area. Shakti Hydro envisaged to use that road for weir construction purpose. Now this plan could not be materialized so far due to some administrative reasons. Now village panchayat agrees that this road be constructed by the project which will be useful for the local villegers also. Hence this proposal of road has been added. Two intermediate tunnel section was also planned to avoid the vicinity of

constructed houses in the village Sandoa and Barjohru which villagers were unwilling. However villagers also has comprehension that balsting during drift excavation may cause damage to their houses. Now with positive deliberations with the villagers with Shakti Hydro, it now proposed to go by original alignment without involvement of any underground works like drifts and tunnels in water conducting system.

2. The user agency has informed that alignment of transmission line has to be modified due to later stage developmental activities and construction of buildings in the earlier proposed alignment of transmission line. The modified layout of transmission line and revised evacuation plan as already submitted by Shakit Hydro vide PPA dted 17Th July, 2010 is attached herewith for your ready reference.
3. The details of road length along with tis width etc have been provided in the Road layout plan as already submitted vide yout proposal dated 13.122013. However for ready reference the details of road sections are tabulated as follows:

RD's	Length (Meter)	Type of land	Right of Way (Width) (Meter)
From main road RD 0 to RD 420	420	Forest land	5.00
From main road RD 420 to RD 485	65	Private	5.00
From main road RD 485 to RD 900	415	Forest	5.00

The road layout plan hs been enclosed herewith.

4. Revised road aligment (bar diagram) with its imposition on digital map is enclosed herewith. This indicates the road from RD 420 to RD 485 lies in Privee land and remaining is the forest land as mentioned above at Para-3.

5. The layout/alignment plan (bar diagram) showing numbers and locations of pole and the type of land (forest or private) is enclosed herewith. RoW has been taken as 15 m i.e. 7.5 m on each side from the centre line of the alignment.
6. In this regard, it is specified that it was never mentioned tht non-forest land is available for carrying out compensatory afforestation in the H.P. State. If some piece of non-forest land is available, the same has been kept for future development projects. Hence, the compensatory afforestation may be allowed on double of degraded forest land ^{against land} proposed for diversion.

Yours faithfully,

Nodal Officer-cum-APCCF (FCA)
O/o Pr. CCF. H.P. Shimla-1.

o/k

Encls: As above.

Endst. No. Ft. 48-1747/2008 (FCA)

Dated Shimla-1, the

16 JUN 2016

Copy is forwarded to the following for information and necessary action:-

1. CF. Mandi.
2. DFO Nachan.
3. M/s Shakti Hydro Electric Co. (P) Ltd., R.O. VPO Shal Tehsil Chachoit, Distt. Mandi ,Himachal Pradesh.

Nodal Officer-cum-APCCF (FCA)
O/o Pr. CCF. H.P. Shimla-1.

o/k

15/06/16

STATEMENT SHOWING ROW REQUIREMENT OF DIFFERENT KINDS OF LAND FOR 3.5 MW SHP CHACHIOT HYDROELECTRIC PROJECT TRANSMISSION LINE(33 KV) FROM VILLAGE BEHRI TO GOHAR TEHSIL CHACHIOT DISTT. MANDI (HP)

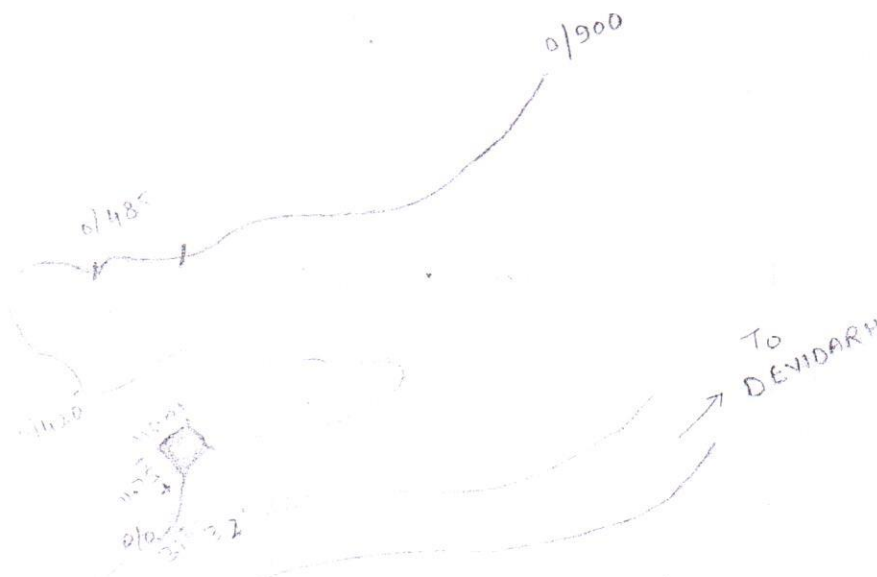
S. No.	Tower no. & type			R.O.W. Width (in mtrs.)	Length (in mtrs.) between the poles	Length detail		Area to be used (in sq.mt.)		Total Area to be used sq.mt.
	From PH Site to Sub station	Number of Poles	Poles in Land			Forest Land (in mtrs)	Private land (in mtrs)	Forest Land	Non- Forest Land	
1	0	1	Power House/Pvt. Land	15	0	0	0	0	0	0
2	1	2	Pvt. Land	15	91.726	0	91.726	0.00	1375.89	1377.89
3	2	3	Forest Land	15	167.521	90	77.521	1350.00	1162.815	2512.815
4	3	4	Forest Land	15	186.504	144.8	41.704	2172.00	625.56	2797.56
5	4	5	Forest Land	15	247.442	200.442	47.000	3006.63	705	3711.63
6	5	6	Pvt. Land	15	100	0.000	100.000	0.00	1500	1500
7	6	7	Pvt. Land	15	28.402	0	28.402	0.00	426.03	426.03
8	7	8	Forest Land	15	45.507	45.507	0	682.61	0	682.61
9	8	9	Pvt. Land	15	274.05	0	274.050	0.00	4110.75	4110.75
10	9	10	Forest Land	15	181.005	81.005	100.000	1215.08	1500	2715.08
11	10	11	Pvt. Land	15	207.67	0	207.67	0.00	3115.05	3115.05
12	11	12	Pvt. Land	15	29.678	0	29.678	0.00	445.17	445.17
13	12	13	Pvt. Land	15	350.626	0	350.626	0.00	5259.39	5259.39
14	13	14	Pvt. Land	15	13.373	0	13.373	0.00	200.595	200.595
15	14	15	Forest Land	15	198.5	186.250	12.25	2793.75	183.75	2977.50
					2122	748	1374	11220	20610	31830

Note:-	1	06 nos Pole in Forest Land
	2	09 nos Pole in Private Land








Shakti Hydro Electrical
Co. Pvt. Ltd., (Chachiot 3.5 MW)
D-111 Defence Colony New Delhi

0/0 MAIN ROAD TO WEIR SITE 3.5 MW CHACHHOT

(NOT TO SCALE)

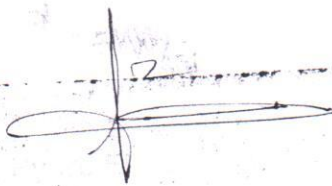


LEGEND :

- (i) EXISTING ROAD SHOWN THUS 
- (ii) PROPOSED   
- (iii) PRIVATE   
- (iv) FOREST   
- (v) DUMPING SITE   

AW

Regional Forest Office
Mandi (H.P.)



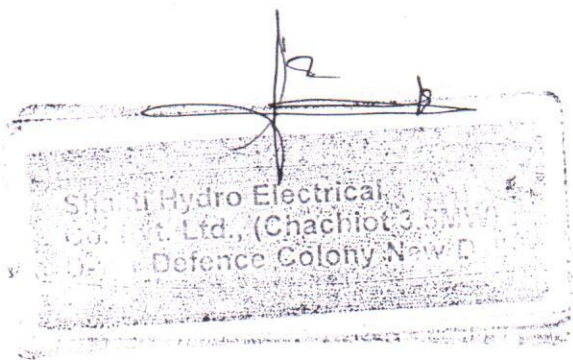
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CHECK LIST NO . -----

Length and width of purposed road main Road to weir site chachiot hydro

Sr No	R.D	Forest land	Total PVT land	Total Forest land	width
1	0/420	420	-	420 mtr	5.35 mtr = 0.224 Hct
2	0/420 to 485	---	65mtr		
3	0/485 to 900	415	--	415mtr	5.00 mtr = 0.208 Hct
4	Drifth	130mtr		130	1.8 mtr = 0.028 hac
			Total = 65mtr	Total = 835 mtr	Total = 0.46 hct



POWER PURCHASE AGREEMENT

**CHACHYOT MINI HYDEL POWER PROJECT (3.50 MW)
VPO SHALA, TEHSIL CHACHIOT, DISTT. MANDI (H.P.)**

EXECUTED

ON

17th JULY, 2010

BETWEEN

**HIMACHAL PRADESH STATE ELECTRICITY BOARD
VIDYUT BHAWAN, SHIMLA-4 (H.P.)**



AND

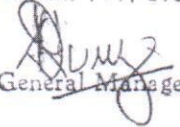
**SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.
D-160/2 OKHLA INDUSTRIAL AREA PHASE - I
NEW DELHI - 110020**

POWER PURCHASE AGREEMENT
CHACHYOT HEP (3.50 MW)
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Chief Engineer (Comm)
HPSEB, Shimla-4

For SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.


General Manager



हिमाचल प्रदेश HIMACHAL PRADESH

04AA 173903

POWER PURCHASE AGREEMENT

This Power Purchase Agreement (the Agreement) entered into on this 17th day of the month of July in the year, 2010 (Two Thousand and ten).

BETWEEN

M/s Shakti Hydro Electric Company Private Limited, 204, Madan Lal Block, Asiad Village Khel Gaon Marg, , New Delhi-110049, a Generating Company within the meaning of Section 2(28) of the Electricity Act, 2003, and registered under the Companies Act, 1956, having its Registered Office/Head Office at D-160/2, Okhla Industrial Area, Phase-I, New Delhi - 110020 (hereinafter referred to as the "Company", which expression shall, unless repugnant to the context or meaning thereof, also include their successors, permitted assigns and legal representatives), through Sh. Rejji Dikrooj - General Manager, who is duly authorised by the Company vide their resolution Dated. 18th August, 2008 (Annexure-I) to execute this Agreement, of the **First Part**;

AND

Himachal Pradesh State Electricity Board, having their office at Vidyut Bhawan, Shimla-171004 (hereinafter referred to as "Board", which expression shall, unless repugnant to the context or meaning thereof, also include their successors, permitted assigns and legal representatives), through Chief Engineer (Commercial), who is duly authorised by the Board vide their resolution dated 11.09.2009 (Annexure-II) to execute this Agreement, of the **Second Part**.

Res
Chief Engineer (Comm)
HPSEB, Shimla-4

For SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.



हिमाचल प्रदेश HIMACHAL PRADESH

04AA 173902

WHEREAS the Company has entered into an agreement dated 25th Feb 2008 (hereinafter referred to as "Implementation Agreement"), with the Government of Himachal Pradesh, whereby the latter has agreed to grant to the Company the right to establish, operate and maintain, at their cost, Chachyot Small Hydro Electric Project (hereinafter defined and referred to as Project) on Juni khad, a tributary of river Beas in District Mandi of Himachal Pradesh with an installed capacity of 3.50 MW ("Contracted Capacity"), in the private sector; AND

WHEREAS royalty on water usage in the shape of free power (energy) is deliverable at the interconnection point, by the company, as per the State Hydro Policy and in the Implementation Agreement AND,


WHEREAS the Company has agreed to sell and the Board has agreed to purchase the entire electric energy (excluding the Government Supply as defined hereinafter) received from the Project at the Interconnection Point; AND

WHEREAS Clause 13.1 & 15.8 of the Implementation Agreement, interalia, provides that a separate agreement specifying various modalities for the generation, evacuation of power, maintenance of the Project, supply of free power, metering etc. shall be executed and in pursuance thereof, this Agreement is being executed.

NOW, THEREFORE, in consideration of the premises and mutual covenants and conditions setforth hereinafter, the Parties hereto hereby agree and this Agreement witnesseth as follows:


Chief Engineer, (Comm.)
HPCED, Mayut Bhawan
Shimla-171004

For SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.


General Manager

ARTICLE 2

DEFINITIONS AND INTERPRETATION

2.1 INTERPRETATION

- 2.1.1 The numbering of paragraphs are for convenience of reference only and shall be ignored in construing or interpreting this Agreement.
- 2.1.2 References to persons and words denoting natural persons shall include bodies corporate and partnerships, joint ventures and statutory and other authorities and entities within the meaning of Article-12 of the Constitution of India.
- 2.1.3 References to any enactment, ordinance or regulation or any provision thereof shall include any amendment thereof or any replacement in whole or in part.
- 2.1.4 Reference to Recitals, Articles, Schedules, Appendix, Clauses, Sub-Clauses or Annexures shall, unless the context otherwise requires, be deemed to include the Recitals, Articles, Schedules, Appendix, Clauses, Sub-Clauses or Annexures of this Agreement.
- 2.1.5 The words importing singulars shall include plurals and vice versa as may be necessary.
- 2.1.6 Terms beginning with capital letters and defined as per Section 2.2 of this Agreement shall have the same meaning ascribed thereto herein and the terms defined in the Schedules and used therein shall have the meaning ascribed thereto in the Schedules.
- 2.1.7 The Annexures and Schedules to this Agreement form an integral part of this Agreement and will be in full force and effect as though they were expressly set out in the body of this Agreement.
- 2.1.8 Any reference at any time to any agreement, deed, instrument, license or document of any description shall be construed as reference to that agreement, deed, instrument, license or other document as amended, varied, supplemented, modified or suspended at the time of such reference provided that this Clause shall not operate so as to increase liability or obligation of any Party hereunder or pursuant hereto in any manner whatsoever.
- 2.1.9 Any agreement, consent, approval, authorization, notice, communication, information or report required under or pursuant to this Agreement from or by any Party shall be valid and effectual only if it is in writing and under the hands of duly authorized representative of such Party in this behalf and not otherwise.
- 2.1.10 Any reference to any period commencing "from" a specified day or date and "till" or "until" a specified day or date shall include both such days or dates.
- 2.1.11 The words/expressions used in this Agreement but not defined herein, unless repugnant to the context, shall have the same meaning as assigned to them in the Implementation Agreement as amended from time to time. The words/expressions used in this Agreement but not defined herein or in the Implementation Agreement shall bear the same meaning as assigned to them in the context in which these have been used in the Agreement provided that the respective meanings, if any, assigned to such undefined words/expressions in the Electricity Act, 2003

2.2 DEFINITIONS

The defined terms set forth in this Agreement will have the following meanings unless repugnant in the subject or context.

- 2.2.1 **"Active Power Output"** means the active power during a Demand Period in kW (kilowatts) or multiples thereof, obtained by dividing the Active Energy produced in kWh (kilowatt hours) or multiples thereof during that period by the time interval of the said demand in hours.
- 2.2.2 **"Active Energy/Energy"** means the electrical energy produced, flowing or supplied by an electrical circuit during a time interval, measured in units of kilowatt hours or standard multiples thereof.
- 2.2.3 **"Active Power"** means the product of voltage (Volts) and the in phase component of alternating current (Amperes), measured in unit of watts or standard multiples thereof.
- 2.2.4 **"Agreement"** means this agreement together with all the Annexures and Schedules hereto as amended from time to time in accordance with the provisions contained in this behalf in this Agreement.
- 2.2.5 **"Approved DPR"** means the detailed project report for the Project for which techno-economic approval is issued by the competent authority, read with the changes and conditions specified in the said techno-economic approval. Any change(s) in the detailed project report shall however not affect the capital cost and/or tariff under this Agreement.
- 2.2.6 **"Auxiliary Consumption"** means energy consumed in the various auxiliaries of the Project during generation of electricity but shall exclude the power supply to colony and its water pumping system etc. Auxiliary Consumption shall be deemed to be 0.5% of the energy generated for the purpose of computation of Saleable Deemed Generation.
- 2.2.7 **"Available Capacity"** means the power station's available capacity in each settlement period (its "Available Capacity") shall be equal to its Declared Capacity in that settlement period, less any capacity reduction attributable to a capacity failure affecting the Power Station in that settlement period.
- 2.2.8 **"Billing Month"** means each of the following:
- a) the period commencing on the Synchronization of the Unit(s) and ending on (and including) the last day of the calendar month in which the Synchronization of the Unit(s) occurs; or
 - b) each calendar month thereafter.
- 2.2.9 **"Board"** means Himachal Pradesh State Electricity Board constituted under Electricity (Supply) Act, 1948, having its head office at Vidyut Bhawan, Shimla-171004 and shall also include, unless repugnant to the context or meaning thereof, its successors, permitted assigns and legal representatives.
- 2.2.10 **"Board Event of Default"** means occurrence and continuation of any of the events listed in Section 10.4 unless any such event occurs as a result of Force Majeure event or breach by the Company of its obligations under this Agreement.

- 2.2.12 **"Buy-Out Option"** means any written option exercised by the Board that causes the Company to sell the Project to the Board, in accordance with the terms of the Agreement.
- 2.2.13 **"Check Meter"** means any meter(s) or metering devices of accuracy class equivalent to that of the corresponding Main Meter installed and maintained by the Board at the Interconnection Point for checking the corresponding Main Meter.
- 2.2.14 **"Commercial Operation of the Unit/Project"** means the state of a Unit/Project when it is capable of delivering Active Power and Reactive Power on a regular basis after having successfully met the requirements of the Commissioning Tests.
- 2.2.15 **"Commercial Operation Date (COD) of Unit/Project"** means the date(s) on which the Unit(s) or the Project achieves the Commercial Operation.
- 2.2.16 **"Company"** means M/s Shakti Hydro Electric Company Pvt. Ltd, New Delhi a Generating Company within the meaning under Section 2(28) of the Electricity Act, 2003, and registered under the Companies Act, 1956 having its Registered Office at 204, Madan Lal Block, Asiad Village, Khel Gaon Marg, New Delhi-110 049, and shall unless repugnant to the context or meaning thereof, also include their successors, permitted assigns and legal representatives.
- 2.2.17 **"Company Event of Default"** means occurrence and continuation of any of the events listed in Section 10.3 unless any such event occurs as a result of Force Majeure or breach by the Board of its obligations under the Agreement.
- 2.2.18 **"Company Termination Notice"** means a notice given by the Company to the Board pursuant to Section 10.6(a).
- 2.2.19 **"Commissioning Tests"** mean the applicable tests as detailed in relevant standards.
- 2.2.20 **"Control Centre"** means the State Load Despatch Centre located at Shimla, or such other control centre designated from time to time (but not more than one at a time) wherefrom Despatch Instructions to the Station/Company shall be issued.
- 2.2.21 **"Date of Payment/Date of Reimbursement"** bears the meaning as set out in Section 8.7.
- 2.2.22 **"Date of Presentation of Bill"** bears the meaning as set out in Section 8.1.
- 2.2.23 **"Deliverable Energy"** means the electrical Energy generated by the Project, as measured at the Interconnection Point.
- 2.2.24 **"Deemed Generation"** bears the meaning as set out in Section 6.4.
- 2.2.25 **"Demand Period"** means the period of time, over which the Active and Reactive Power Outputs are integrated to obtain the respective active and reactive electrical outputs. In this Agreement the Demand Period shall be thirty (30) minutes or a shorter period as may be decided by the Board as per the Prudent Utility Practices from time to time.
- 2.2.26 **"Despatch"** means to schedule and control the generation of the Project in order to

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Himachal Government Judicial Paper

2.2.27 **"Despatch Instruction"** means an instruction issued by the Control Centre to the Company for the Despatch of power by message to be confirmed in writing/fax by Control Centre in accordance with the Operating Procedures developed by the Parties to operate the Project in accordance with the terms of the Agreement, Technical Limits and Prudent Utility Practices including:

- (a) an instruction to target Active/Reactive Power to be maintained by the Project;
- (b) an instruction to Synchronize or de-Synchronize the Unit(s) at a particular time;
- (c) an instruction to defer or cancel a Scheduled Outage or Maintenance Outage subject to provision of Article 5; and
- (d) an instruction for backing down the Active/ Reactive Power due to Grid conditions.

2.2.28 **"Dispute"** means any material dispute or material difference of any kind whatsoever between the Parties to the Agreement in connection with or arising out of the Agreement.

2.2.29 **"Due Date of Payment"** means with respect to any bill, the date by which the amount of such bill is required to be paid. This date shall in case of any monthly bill for any Billing Month and/or supplementary bill, be thirty (30) days from the Date of Presentation of the Bill by the Company to the Board or vice versa. If such due date happens to be a holiday, the next working day shall be treated as the Due Date of Payment.

2.2.30 **"Effective Date"** means the date of signing of the Agreement.

2.2.31 **"Financial Agreement"** means the loan agreements, notes, indentures, security agreements, letters of credit and other documents relating to the construction and financing (including refinancing) and over run finance, if any, for the capital cost, or any part thereof, of the Project as the same may be executed, amended, supplemented or modified from time to time.

2.2.32 **"Financial Year/Year"** means a period of 12 months beginning April 1, and ending March 31.

2.2.33 **"Force Majeure"** bears the meaning set out in Article 12.

2.2.34 **"Forced Outage"** means an interruption in the generating capacity of the Project that is not the result of:

- (a) request by the Board in accordance with the Agreement;
- (b) a Scheduled Outage or a Maintenance Outage;
- (c) an event or occurrence of Force Majeure; and
- (d) a condition caused solely by the Board or by the Board's Grid System.

2.2.35 **"Generating Company"** means any company or body corporate or association or body of individuals, whether incorporated or not, or artificial juridical person, which owns or operates or maintains a generating station.

2.2.36 **"Generating Unit/Unit"** means one turbine generator set and the associated

2.2.38 "GOI" means the Government of India.

2.2.39 "Government/Govt." means the Government of Himachal Pradesh.

2.2.40 "Government Supply/Govt. Supply" means the quantum of Energy which will be supplied by the Company free of cost at the Interconnection Point to the Board, as per the Implementation Agreement.

2.2.41 "Grid/Grid System" means the network of power system interconnecting different power generating stations, transmission lines and sub-stations for transmitting the electrical output from the Interconnection Point upto main load centre(s).

2.2.42 "Implementation Agreement" means the agreement dated 25th Feb. 2008 entered into between the Company and the Government for implementation of Chachyot Hydro Electric Project read with the subsequent amendments, if any, thereto.

2.2.43 "Independent Engineer" means the Independent consulting Engineer or consulting firm or group that is jointly qualified by the Company and the Board for the purposes of this Agreement who shall be appointed three months before the COD.

2.2.44 "Installed Capacity" means summation of the name plate kilowatt capacity(ies) of the Generating Unit(s) of the Project.

2.2.45 "Interconnection Facilities" mean all the facilities which shall include, without limitation, switching equipment, protection, control and metering devices etc. for the incoming bay(s) for the Project Line(s), to be installed and maintained by the Board at 33kV sub-station at Gohar, at the cost of the Company, to enable evacuation of electrical output from the Project in accordance with the Agreement.

"Explanation :- for the purpose of this clause, the expression "cost" shall include other expenditure borne by the company like re-organisation of bays at interconnecting substation and associated civil works alongwith related operation and maintenance cost".

2.2.46 "Interconnection Point" means the physical touch point where the Project Line(s) and the allied equipment forming a part of the Interconnection Facilities are connected to the 33 kV bus-bars on the 33 kV sub-station of the Board at Gohar, Tehsil Chachyot, Dist. Mandi, H.P.

2.2.47 "Law" means any act, rule, regulation, notification, directive, order or instruction having the force of law enacted or issued by any competent legislature, Government, GOI or statutory authority of India.

2.2.48 "Main Meter" means all meter(s) and metering devices owned by the Company and installed at the Interconnection Point for measuring and recording the delivery and receipt of Energy and other parameters as per Section 7.2.

2.2.49 "Maintenance Outage" means an interruption or reduction in the generating capability of the Project that:

- 2.2.50 **"Net Saleable Energy"** means the electrical Energy in kWh, delivered by the Company at the Interconnection Point, less the Government Supply.
- 2.2.51 **"Notice of Default"** means the notice served by one Party on the other Party pursuant to Section 10.5(a).
- 2.2.52 **"Operating Committee"** bears the meaning as set out in Section 5.6.
- 2.2.53 **"Operating Procedures"** mean the operating procedures adopted by the Operating Committee from time to time pursuant to Section 5.6.
- 2.2.54 **"Party"** means the Board or the Company when referred to individually.
- 2.2.55 **"Parties"** mean the Board and the Company when referred to collectively.
- 2.2.56 **"Project"** means the Chachyot Hydro Electric Project 3.50 MW capacity, proposed to be established on Juni khad, a tributary of river Beas in Distt. Mandi in Himachal Pradesh, India, as approved by the Government, including complete hydro power generating facility covering all components such as diversion, intake works, desilting tank water conductor system, fore bay, penstock, Power House, switchyard, tailrace channel, Generating Unit(s), the Project Line(s), Interconnection Facilities and other connected facilities.
- 2.2.57 **"Project Line"** means 33 kV single circuit transmission line from the Station to the 33kV sub station of the Board at Gohar to be constructed, operated and maintained by the Company for the purpose of evacuation of power from the Project.
- 2.2.58 **"Prudent Utility Practices"** mean those practices, methods, techniques and standards as prevalent from time to time, that are generally accepted internationally for use in electrical utility industries (taking into account conditions in India) and commonly used in prudent electric utility engineering and operations to design, engineer, construct, test, operate and maintain equipment lawfully, safely, efficiently and economically as applicable to power stations of size, service and type as that of the Project and that generally conforms to manufacturers' operation and maintenance guidelines.
- 2.2.59 **"Reactive Energy"** means the electrical Energy produced, flowing or supplied by an electric circuit during a time interval, measured in units of kVARh or standard multiples thereof.
- 2.2.60 **"Reactive Power"** means the product of voltage and quadrature component of current, measured in kVAR, which the Project shall provide to or absorb from the Grid System.
- 2.2.61 **"Reactive Power Output"** means the Reactive Power during a Demand Period in kVAR or multiples thereof, obtained by dividing Reactive Energy produced in kVARh or multiples thereof during that period by the time interval of the said demand in hours.
- 2.2.62 **"Saleable Deemed Generation"** means the loss in generation at the Station, after the Commercial Operation Date of the Project, attributed to the factors described in Section 6.4, for which the Board shall pay charges on the basis of the Deemed Generation after

monthly basis in accordance with Section 7.16. The determination of Energy quantum qualifying for payment(s) by the Board to the Company on account of Saleable Deemed Generation shall be strictly done in accordance with the stipulations under Section 6.4.

- 2.2.63 **"Scheduled Commercial Operation Date of the Project/Scheduled COD of the Project"** means the date by which the Company shall achieve Commercial Operation of the Project in accordance with Article-4 and commence power supply from all the Unit(s) on regular basis. The same shall be the date falling fifteen days after the Scheduled Synchronization Date of the last Unit.
- 2.2.64 **"Scheduled Outage"** means a planned interruption of the generating capability of the Project or a Generating Unit.
- (a) for inspection, testing, preventive maintenance, corrective maintenance, repairs, replacements and improvement; and
 - (b) which is not a Maintenance Outage and has been scheduled and allowed by the Board.
- 2.2.65 **"Scheduled Synchronization Date/Scheduled Date of Synchronization"** means the date by which the Company schedules to Synchronize Unit(s) as per the provisions of the Implementation Agreement.
- 2.2.66 **"Station"** means the 3.50 MW Chachyot Hydro Electric Station under the Project.
- 2.2.67 **"Synchronization/Synchronize/Synchronizing"** means an act to cause paralleling of two A.C circuits/ systems when they are within the desired limits of frequency, phase angle and voltage.
- 2.2.68 **"Synchronization Date(s)/Date of Synchronization"** means with respect to each Unit, the date on which each such Unit is Synchronized and connected to the Grid System.
- 2.2.69 **"Technical Limits"** mean the limits and constraints and relating to the operation and maintenance of the Project, specified by the Board as per Schedule-II.
- 2.2.70 **"TOD"** means time of day for the purpose of metering.
- 2.2.71 **"Transformation Losses"** means the difference between
- a) the number of energy units supplied to the incoming terminals of step-up transformer(s) and
 - b) the number of energy units at the outgoing terminals of the step-up transformer(s).
- The Transformation Losses shall be deemed to be 0.5% of energy generated for the purpose of computing the Saleable Deemed Generation.
- 2.2.72 **"Transmission Losses"** means the difference of the electrical energy measured at the sending end and receiving end of transmission lines (i.e. the Station and the Interconnection Point). Transmission Losses shall be deemed to be 4.5% of the energy to be generated for the purpose of computing the Saleable Deemed Generation.

- 2.2.73 **"Water Spillage"** means the amount of water spilled downstream of weir (without obtaining power generation benefits) on account of factors described in Section 6.4. but shall not

ARTICLE 3

CONSTRUCTION STAGE

- 3.1 The Company shall design and construct the Project in accordance with the Prudent Utility Practices, relevant technical standards and specification and also in line with the provisions of Approved DPR, after obtaining all requisite approvals. The Company shall achieve Commercial Operation of the Project within Scheduled Commercial Operation Date and ensure that the Project is capable of being Despatched delivering Active and Reactive Power as per Despatch Instructions and of being operated in parallel with the Grid System as per Prudent Utility Practices. The Company shall also ensure delivery of power at the Interconnection Point in a safe and reliable manner so as to avoid fluctuations and disturbances to the Grid System due to parallel operation.
- 3.2 For the purpose of this Article the construction period means a maximum period of 24 months from the date of financial closure. The construction schedule to this effect is as per Schedule-I of this Agreement. The Company shall also furnish to the Board half yearly progress reports by 31st March and 30th September every year indicating achievement viz-a-viz the targets, spillages, if any, and the remedial actions intended to be taken.
- 3.3 The Company shall enter into a separate agreement with the Board within a period of six (6) months, from the Effective Date for execution, operation and maintenance of the Interconnection Facilities. The agreement shall inter-alia lay down the details of the Interconnection Facilities and also the charges and other terms and conditions for the execution, operation and maintenance of the Interconnection Facilities.
- 3.4 The Company shall provide at the Station, at its cost, suitable arrangements, compatible with the Grid System and as may be approved by the Board, for parallel operation with the Grid System as per Prudent Utility Practices and also for automatic isolation of the Project from the Grid System in the event of any fault on the Grid System and ensure that no damage is caused to the Project due to aforesaid.
- 3.5 The Board shall provide adequate protection at the Interconnection Point, as a part of the Interconnection Facilities, to ensure that no damage is done to its system due to paralleling of the Station.
- 3.6 For proper and prompt co-ordination and efficient load management, the Company shall provide and maintain adequate and reliable communication system between the Station and 33 kV sub-station of the Board at Gohar.
- 3.7 Subject to availability, the Board shall provide adequate construction power to the Project at the cost of the Company. The construction power shall be supplied at the Board's bulk supply tariff as applicable from time to time. The Board shall however not be liable to pay any damage/ compensation to the Company in the event of non-supply of construction power for reasons beyond its control. The Company shall make its own standby arrangements for meeting the power requirements of the Project during the periods when Board is not in a position to make un-interrupted supply of power available to the Company.
- 3.8 At least three months before the scheduled date of start of construction work of the Project, the Parties shall establish a Construction Committee comprising of four (4) members. The Company and the Board shall appoint two (2) members each. The Board shall appoint one of the members, who shall be of the rank of Superintending Engineer, as Chairman of the

ARTICLE 4

COMMISSIONING AND ACHIEVING COMMERCIAL OPERATION

4.1 SYNCHRONISATION

- 4.1.1 The Company shall give the Board at least sixty (60) days advance written notice of the date on which it intends to synchronize a Unit to the Grid System, the date being not earlier than the Scheduled Synchronization Date for the first Unit, unless otherwise agreed to by the Board.
- 4.1.2 Subject to Section 4.1.1, the Company shall declare a Unit to be ready for Synchronization with the Grid System when:
- (i) it has been installed in accordance with the required technical specifications and Prudent Utility Practices;
 - (ii) it meets all related conditions prescribed in applicable Indian Standard(s) /Code(s) then in effect and otherwise meets the provisions of the Electricity Act, 2003 and the rules framed there under and the Electricity Rules, 1956 or any other requirements for Synchronization to the Grid System; and
 - (iii) it is capable of being operated safely and the Company has obtained the approval of the Chief Electrical Inspector of the Government for energisation.
- 4.1.3 The Company shall notify the Board, as soon as the requirements of Section 4.1.2 have been met and the Unit is ready to be synchronized to the Grid System in accordance with the Agreement.
- 4.1.4 The Board, and/or its authorised representative(s) shall inspect any Unit which the Company intends to Synchronise to the Grid System within five (5) days after being notified in writing by the Company pursuant to Section 4.1.3, to determine whether the requirements of Section 4.1.2 have been met. The Company shall provide the Board with such access to the Station as is reasonably required to make such determination.
- 4.1.5 If the Board is satisfied that the Unit is ready to be Synchronized in accordance with Section 4.1.2 and 4.1.4, it shall within three days of the completion of the inspection of the Unit(s) notify the Company to that effect and provide the Company with all reasonable assistance in Synchronizing the Unit and also for conducting Commissioning Test(s).
- 4.1.6 The Company shall conduct Commissioning Tests within fifteen (15) days from the Date of Synchronisation, in the presence of an Independent Engineer appointed by both the Parties. The Independent Engineer shall submit a certificate of the tested capacity and necessary performance tests of the plant to the Board.
- 4.1.7 In continuation to notice as per section 4.1.1, the Company shall further give atleast seven (7) days notice by fax followed by registered mail to the Board of the exact date(s) on which Commissioning Test(s) will commence. The Board shall designate its authorised representative to observe these test(s). A copy of these test(s) results shall also be furnished by the Company to the Board.
- 4.1.8 The Commercial Operation of a Unit shall have occurred as on the date such Unit successfully passes the Commissioning Test(s) and have been duly certified by the Independent Engineer.
- 4.1.9 In case the Company fails to achieve Commercial Operation of the Unit(s) within 180 days from the first Synchronisation of the last Unit of the Project, the Company shall to the satisfaction of the Board, take off such Unit from the Station bus bar till such time the defect is removed, failing which the Board shall be free to disconnect the Project Line(s) from its Grid System after giving an opportunity to the Company to explain its position.

ARTICLE 5

PLANT OPERATION AND MAINTENANCE

5.1 Subject to the provisions of the Agreement, the Company shall organize operation and maintenance of the project so as to ensure optimum utilization of the water potential and if required, affect improvement (within the overall scope of the Project implementation) in the Project in accordance with:

- (i) Prudent Utility Practices;
- (ii) all applicable Laws and directives;
- (iii) the manuals, instructions and manufacturers' guidelines supplied by construction contractors, manufacturers of equipments/suppliers etc;
- (iv) the Grid Technical Limits as described in Schedule-II;
- (v) Dispatch Instructions; and
- (vi) rated capacity subject to normal derating/deterioration.

5.2 SCHEDULED OUTAGES

- (a) Atleast 45 days prior to the Scheduled Synchronisation Date of each Unit, the Company shall submit to the Board proposed plan of Scheduled Outage for that Unit for the balance period of the Year in which such date falls. Thereafter, by 15th February preceding each Year, the Company shall submit to the Control Centre its proposed plan of Scheduled Outages for Unit(s) of the Project for the following Year.
- (b) Within 30 days of submission of such Schedule by the Company, the Control Centre shall either notify the acceptance to the Company in writing or convey its views to the Company in writing. In case of non response by the Control Centre within the stipulated period, the Schedule submitted by the Company shall be deemed to be carrying the approval of the Control Centre. The plan of Schedule Outages shall then be finalised by the Operating Committee as per Prudent Utility Practices. The decision of the Control Centre with regard to scheduling of Scheduled Outages shall be final.

5.3 MAINTENANCE OUTAGES

When the circumstances warrant a Maintenance Outage, the Company shall inform the Control Centre of such circumstances and the proposed commencement and estimated duration of Maintenance Outage. The Control Centre shall grant the Company the right to schedule and conduct such Maintenance Outage at a time acceptable to the Parties. The decision of the Control Centre with regard to scheduling of Maintenance Outages shall be final.

5.4 OPERATION

The Control Centre may issue Despatch Instructions and the Company shall follow all such Despatch Instructions issued by the Control Centre as below:

- a) The Company shall keep the Control Centre informed about the availability of the Project. Further, the Company shall be under obligation to inform the Control Centre within 30 minutes of any change in the Availability. The entire Availability would be deemed to be applicable unless a new declaration with respect to Availability is conveyed to the Control Centre.
- b) The operating staff of the Company shall carry out all switching operations as per the instructions of the Control Centre.

- c) During an emergency, the Company shall act in accordance with the instructions of the Control Centre and the Power output increased/decreased subject to the 'Technical Limits' and the 'Water Availability.'

5.5 FORCED OUTAGES

In case of Forced Outage, the Company shall take all reasonable steps to bring back the equipment into service that is under Forced Outage, as early as may be reasonably practicable.

5.6 OPERATING COMMITTEE MEMBERSHIP AND DUTIES

- (a) At least six months before the Scheduled Synchronisation Date of the first Unit, the Parties shall establish an Operating Committee comprising of four (4) members. The Company and the Board shall appoint two (2) members each. The Board shall appoint one of the members, who shall be of the rank of Superintending Engineer, as Chairman of the Operating Committee. The Operating Committee shall be responsible for the co-ordination of the operation of the Project with the Grid System. Without limiting the generality of foregoing, the duties of such committee shall include:
- (i) the discussion on the steps to be taken on the occurrence of any event of Force Majeure, or the shutdown or reduction in capacity or any other event of concern, relating to the Project, Interconnection Facilities and/or transmission facilities affecting the evacuation of power from the Project;
 - (ii) the co-ordination of Scheduled Outages;
 - (iii) the development of Operating Procedures and their periodic review. The Company shall submit the draft for such Operating Procedures to the Operating Committee at least 120 days before the Scheduled Synchronisation Date of the first Unit;
 - (iv) safety matters affecting both the Parties or their contractors;
 - (v) review of protection schemes and devices including relay settings etc.;
 - (vi) matters relating to the co-ordination of the respective programmes of the Parties for the operation and maintenance of the Project and the Interconnection system and other matters arising out of the PPA; and
 - (vii) any other mutually agreed matter(s) affecting the operation of the Project with the Grid System.
- (b) The Operating Committee may agree upon the timings and procedures for holding its meetings, the records of the meetings and appointment of sub-committees.
- (c) In case of matter(s) not resolved by consensus, the Committee or either Party may refer such matter(s) to the Chief Engineer (Commercial) of the Board or such authority designated by the Board for the purpose from time to time, to resolve the matter of disagreement.

5.7 MAINTENANCE OF RECORDS

Each Party shall keep complete and accurate records and all other data required by each of them for the purposes of proper administration of the Agreement. Among other records and data required hereby or elsewhere in the Agreement, the Parties shall maintain an accurate and up-to-date operating log at the Project/Interconnection Point as per Prudent Utility Practices


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- (b) Scheduled Outages, Maintenance Outages and Forced Outages;
- (c) outage of the Generating Unit(s), other than the Scheduled Outage, Maintenance Outage and Forced Outage, but attributed to the following or any one of the following :-
 - i) Board Grid System failure.
 - ii) Non availability of evacuation system beyond the Interconnection Point.
 - iii) Receipt of backing down instructions from the Control Centre.
- (d) any unusual condition observed during operation/ inspection(s).

All such records shall be maintained for a minimum of sixty (60) months after the creation of such record or data. Either Party shall have the right, upon reasonable prior notice to the other Party, and at reasonable times, to examine such records and data maintained by the other Party during the office hours only. Neither Party shall dispose off or destroy any records after the period of preservation, without giving thirty (30) days prior written notice to the other Party.


Chief Engineer (Comm)
HPSEB, Shimla

For SHAKTI HYDRO ELECTRIC CORP. LTD. PVT. LTD.


General Manager

ARTICLE 6

SALE AND PURCHASE OF THE ENERGY

- 6.1 From the Date of Synchronisation of the first Unit of the Project, the Company shall supply the electrical Energy from the Project at the Interconnection Point. The Government Supply shall be delivered by the Company to the Board at the Interconnection Point free of cost. The Company shall sell and the Board shall purchase at the Interconnection Point the Net Saleable Energy i.e. the Energy received from the Project at the Interconnection Point less the Government Supply.

During such periods, as may occur from time to time, as the Project is partially or totally unable to operate, the Company may draw Energy required for startup and maintenance of the Project from the Board's system, which shall be metered at the Interconnection Point and adjusted against the Net Saleable Energy in corresponding month's bill. In case the quantum of such drawals by the Company during a month exceeds the Net Saleable Energy for that month, the excess drawals shall be paid for by the Company at the same rate as applicable for Net Saleable Energy as per Section 6.2.

6.2 **TARIFF FOR NET SALEABLE ENERGY**

The Board shall pay for the Net Saleable Energy delivered by the Company to the Board at the Interconnection Point at a fixed rate of Rs. 2.87 (rupees two and eighty seven paise) per Kilowatt hour.

6.3 **SUPPLY OF ACTIVE AND REACTIVE POWER**

The Company will produce and supply Active and Reactive Power to the Grid in accordance with the Despatch Instructions from time to time within the technical parameters of the Unit(s), declared capacity, water availability and Grid conditions.

6.4 **DEEMED GENERATION**

After the COD of the Project, loss of generation at the Station on account of reasons attributed to the following, or any one of the following, shall count towards Deemed Generation and it shall be paid/accounted for each time, if only there is Water Spillage.

- (a) Board Grid System failure;
- (b) non availability and partial availability of evacuation system beyond the Interconnection Point; and
- (c) receipt of backing down instructions from the Control Centre as a result of merit order despatch.

Provided that the following shall not count towards Deemed Generation:-

- (i) the loss of generation at the Station due to the interruptions/outages attributed to the aforesaid factor(s) lasting for a period of less than 20 minutes at a time;
- (ii) the loss of generation at the Station on account of aforesaid factor(s) but attributed to

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- (iii) the loss of generation at the Station due to the interruptions/outages attributed to the aforesaid factor(s) during the period in which the total duration of such outages/interruptions, other than those excluded under (i) & (ii) above, is within the annual limit of 480 hours in a Year; and
- (iv) the loss of generation at the Station that would have taken place otherwise also even in the absence of the aforesaid factor(s).

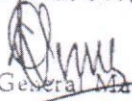
The period of outage/interruption on account of such factor(s) shall be reconciled on monthly basis and the loss of generation at the Station counting towards Deemed Generation after accounting for the events (i) to (iv) above, shall be computed on following considerations:-

- (i) if such period falls within the first twelve months after the COD of the Project, the generation envisaged for the month in which such period falls, based on inflows relating to 75% dependable year, as per the hydrological data contained in the Approved DPR; and
- (ii) if such period falls subsequent to the first twelve months after the COD of the Project, the generation actually achieved including the Deemed Generation, if any, in the corresponding month of the previous Year or the one envisaged in that month based on inflows relating to 75% dependable year as per the hydrological data contained in the Approved DPR, whichever is less.

The Board shall pay for the Saleable Deemed Generation, worked out on the basis of the Deemed Generation on above lines, at a fixed rate of Rs. 2.87 (rupees two & eighty seven paise) per unit on monthly basis.


Chief Engineer (Comm),
HPSEB, Shimla-4

For SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.


General Manager

ARTICLE 7

METERING STANDARDS AND TESTING

- 7.1 The Project Line(s) shall be constructed, operated and maintained by the Company as a part of the Project for evacuating power from the Project. The construction, operation and maintenance of the Interconnection Facilities shall be done by the Board at the cost of the Company for which a separate agreement will be entered into by the Company with the Board in accordance with Section 3.3.

For measuring the delivery/import of Energy by the Company at the Interconnection Point, one set of Main Meter (part of Interconnection Facilities) and Check Meter shall be provided by the Company and the Board respectively at the Interconnection Point. The general location of the metering equipment shall be communicated by the Company to the Board at least ninety (90) days prior to the Commercial Operation Date of the Project.

- 7.2 Main and Check Meter as per Section 7.1 above shall be capable of measuring and recording the following parameters for various time/frequency blocks as per Prudent Utility Practices:-

- i) Active Energy (kWh) and Reactive Energy (kVARh);
- ii) instantaneous voltage, current and power factor;
- iii) frequency;
- iv) maximum demand in kVA/kW for each Demand Period and for the total period since last reset;
- v) kWh/kVARh since last reading;
- vi) real time and time of day metering; and
- vii) number of resets.

Meters will have facilities for reset. The metering system shall be independent of phase sequence reversal, C.T. polarity reversal and shall also give an indication in case of missing P.T. potential. The metering system shall also be capable to record export and import data separately. Accuracy class for Active Energy measurement shall be 0.2 as defined in applicable IEC/Indian standards. For all other values, the accuracy class shall be as per Prudent Utility Practices.

- 7.3 The copies of certified results of the factory calibration tests for the Main Meter and the Check Meter conducted in accordance with Prudent Utility Practices shall be provided by each concerned Party to the other Party. The Company as well as the Board shall keep requisite sets of metering equipment, duly tested/calibrated, as spares, for replacement as and when required. Main Meter or Check Meter shall be replaced by spare set of meters with mutual consent of the Parties whenever the Main Meter or the Check Meter is required to be removed.

Meter installed after replacement shall be treated as Main Meter or Check Meter, as the case may be.

- 7.4 The Main Meter and the Check Meter shall be maintained in accordance with Prudent Utility Practices. The meters installed at the Interconnection Point shall be jointly inspected and sealed on behalf of the Parties and shall not be interfered with by either Party except in the presence of the other Party or its accredited representative(s).

- 7.5 a) The Main Meter and Check Meter shall be test checked for accuracy insitu at least fifteen (15) days before Synchronisation of the first Unit and every six months thereafter. The test for the Main Meter and the Check Meter shall be done with reference to a portable Sub Standard meter, which shall be of accuracy class compatible with the class of meter under test and as per the Prudent Utility Practices. Further the IPP shall at its own expense, have the Sub Standard meter tested, calibrated and certified by a recognized and independent Testing House/Laboratory, mutually acceptable to the Parties, once during every year (or more frequently upon the reasonable request of the Company or the Board) with reference to the relevant Indian standard or I.E.C. where Indian standard is not existing. Each such meter shall be deemed to be working satisfactorily so long as the errors are within the limits prescribed in the relevant Indian standard (or I.E.C where Indian standard is not existing) for meters of the said accuracy class. The consumption registered by a Main Meter alone will hold good for the purpose of billing as long as the error in the Main Meter is within the permissible limits.
- (b) Any Party can request for additional metering test and the additional test shall be conducted within seven (7) days of receipt of such notice. The Parties shall agree to a mutually convenient time for such inspections or tests and the expense of any requested additional inspections or tests requested by a Party shall be borne by the Party requesting such additional test. However, if upon such testing, the metering equipment is found to register beyond the permissible limits of error, the expenses will be borne by the other Party.
- 7.6 If during the half yearly test checks, the Main Meter is found to be within the permissible limits of error and the corresponding Check Meter is found to be beyond the permissible limits of error, then billing will be as per the Main Meter as usual. The corresponding Check Meter shall, however, be calibrated or replaced with spare tested calibrated meter, as may be necessary.
- 7.7 If during the half yearly test checks, the Main Meter is found to be beyond permissible limits of error but the Check Meter is found to be within permissible limits of error, then the billing for the month and upto the date and time of the calibration/replacement of the defective Main Meter, shall be as per the Check Meter. Such meter shall be immediately calibrated or replaced with the spare tested/calibrated meter, as may be necessary, where after billing shall be as per the Main Meter.
- 7.8 If during the half yearly test checks, the Main Meter and the Check Meter are both found to be beyond the permissible limits of error, then both the meters shall be immediately replaced with spare calibrated meters and the correction applied to the consumption registered by the Main Meter to arrive at the correct consumption of Energy for billing purposes for the period of two Billing Months prior to the month in which test check has been done and upto the time of calibration/replacement of the defective meter.
- 7.9 Corrections in billing, wherever necessary, shall be for the full value of the absolute error. For the purpose of the correction to be applied, the Main Meter shall be tested at (a) 100, (b) 50, (c) 20 and (d) 10 percent load at unity power factor as well as 0.9 power factor lagging. Of these eight values, the error at the load and power factor

- 7.10 If, when the joint meter readings are taken, the difference between consumption as per Main Meter and the Check Meter exceeds the maximum permissible error for such meters, then both meters shall be tested in turn.

Pending such calibration of the Main Meter, billing and payment shall be provisionally based on the Energy recorded by the Check Meter and will be subject to adjustment on testing of the Check Meter.

If on such testing, the error in both the Main Meter and the Check Meter is found to exceed the maximum permissible error for a meter of that accuracy Class (0.2), the Energy figure recorded by such Main Meter for the previous Billing Month (i.e. the month for which final reading was taken as per first sub para of this Section) and upto the date of removal of such meter in the current month shall be corrected by applying correction factor as per Section 7.9

If on testing, error in the Main Meter is within accuracy limit and the Check Meter is beyond the accuracy limit, the Main Meter reading shall be used for billing and Check Meter shall be recalibrated.

If on testing, error in the Check Meter is within the accuracy limit and error in Main Meter is beyond accuracy limit, then Check Meter reading shall be used for billing purposes for the previous Billing Month (i.e. the month for which final reading was taken as per first sub para of this Section) and the Main Meter shall be recalibrated. Till calibration/replacement of the Main Meter is done, the meter reading of the Check Meter shall continue to be used for billing purposes.

If on testing, the Main Meter and the Check Meter are both found to be within the accuracy limits, the readings of the Main Meter shall continue to be adopted for billing purposes.

- 7.11 If the Main Meter and the Check Meter fail to record or if any of the PT fuses have blown out, then the Energy will be computed on a mutually agreeable basis between the Company and the Board for that period of defect. In case there is no mutual agreement then the matter will be referred to the Chief Electrical Inspector to the Government of Himachal Pradesh whose decision would be final and binding on both the Parties.
- 7.12 All the tests on the Main and Check Meter shall be conducted in the presence of the authorised staff of the Parties and the results and correction so arrived at will be applicable and binding on both the Parties.
- 7.13 Any Dispute regarding measurement of Energy, which does not get resolved through mutual negotiations, shall be referred by the either Party to the Chief Electrical Inspector to the Government of Himachal Pradesh, whose decision shall be final and binding on both the Parties.
- 7.14 For the purpose of taking joint meter readings and other activities in pursuance of this Article, the Board as well as the Company will designate their official(s) within 15 days after issuance of the notice by the Company under Section 4.1.1. Either Party shall be entitled to change the nomination of its designated official(s) by giving a notice of atleast fifteen (15) days to the

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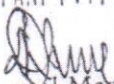
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- 7.15 Monthly joint meter readings of the Main Meter and Check Meter installed at the Interconnection Point shall be taken by the designated officials of the two Parties on the Synchronisation Date of each Unit as well as at 12.00 hours on the first day of the next month in which the first Unit is Synchronised and subsequently also at 12.00 hours of the first day of each month. The joint meter readings shall be recorded and signed by the authorised representative(s) of both the Parties on each of the above instances. If the authorised representatives of the Board and the Company are not available for recording the readings of Main/Check Meter at the Interconnection Point, at the said hour, the meter(s) shall be read jointly at 12.00 hours on the following day; failing which the meter(s) shall be read by the Party present at the site, who shall certify the meter readings. If the representative of the Board does not attend to the verifications and certification of the statement, the certificate of the Company alone shall be considered sufficient for release of payment in the interim. Registers shall be maintained by the Company and the Board separately for the joint meter readings recorded at the Interconnection Point. Separate joint meter readings shall also be taken at the time of removal/replacement of any of the Main Meter/Check Meter.
- 7.16 On the last day of each month, the Company shall prepare a statement in respect of Water Spillage and loss of generation, if any, at the Station to be considered for determination of Saleable Deemed Generation during the month. The above statement duly signed together with the copies of the relevant log book(s) and other supporting data shall be supplied at the time of recording of joint meter reading on first day of each month. This statement shall be reconciled and signed by the designated officers of the Board and the Company.
- 7.17 After recording the meter readings referred to in Section 7.15, the designated officers of the Board and the Company or the Party present, as per provisions of Section 7.15, shall work out the total Energy delivered/imported by the Company at the Interconnection Point, the quantum of Govt. Supply & the Net Saleable Energy. The statement to this effect, shall be signed by said designated officer(s) and will form the basis for preparation of monthly bills by the Board and the Company.


Chief Engineer (Comm)
HPSEB, Shimla-4

For SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.


General Manager

ARTICLE 8

BILLING AND PAYMENT

- 8.1 The Company shall prepare the monthly bills for the Saleable Deemed Generation and the Net Saleable Energy in accordance with the jointly signed statements as per Sections 7.16 and 7.17 respectively and shall furnish the same to the Board, in triplicate, on or after 5th day of each succeeding month. The bills for supply of Energy by the Board to the Company pursuant to Section 6.1 shall be prepared by the Board and served on the Company in the same manner.

The Board shall make payments of the bills raised on above basis within 30 days from the Date of Presentation of the Bill by the Company to the Board. The Date of Presentation of the Bill shall mean the date on which the bill is received by the designated office of the Board as notified from time to time. The payments shall be made through crossed cheques drawn on the banks acceptable to the Company and the Board.

As a backup arrangement for Board's payment obligation in respect of monthly bills under this Agreement, the Board shall also open and maintain, for the term of this Agreement, a confirmed irrevocable, revolving Letter of Credit (LC) in favour of the Company on any nationalised bank. This Letter of Credit shall be opened by the Board within a period of thirty days from the Commercial Operation Date of the Project. The charges for opening the LC shall be borne by the Company.

The value of the Letter of Credit due in the first year of operation shall be equal to the possible value of invoice based on the maximum generation in any one month, based upon the hydrological data provided in the DPR, relating to 75% dependable year. During subsequent years, however, the value of the Letter of Credit shall be equivalent of the highest invoiced amount in any one month during the previous years (say three years) of operation. Further the cost of reinstatement of the Letter of Credit shall be borne by the Board. In case the payment is not released by the Board on the Due Date of Payment the Company shall, on the working day immediately after to the Due Date of Payment (scheduled date of operation of LC), claim payment from the concerned bank through the LC for the undisputed/unpaid amount of the bill.

In the event of operation of LC by the Company, the Board shall restore the amount of Letter of Credit within the scheduled date of payment through LC for the next monthly bill. Other detailed modalities regarding operation and maintenance of LC shall be mutually decided by the Parties.

8.2 REBATE

If the payment of a bill is made before the Due Date of Payment, the Board shall be entitled for a rebate at normal prime-lending rate of interest of the State Bank of India calculated for each day of payment before the Due Date.

8.3 LATE PAYMENTS

In case the un-disputed amount of a bill is not paid within the Due Date of Payment, the unpaid and un-disputed amount shall bear penalty at a rate of 1.5% per month. For this purpose the month shall be considered to be comprising of thirty days. The penalty shall be payable for each day of delay in making such payment beyond the Due Date of Payment.

8.4 SUPPLEMENTARY BILLS

8.5 BILLING DISPUTES

- (a) Notwithstanding any Dispute as to all or any portion of monthly bill/supplementary bill submitted by the Company to Board, the Board shall pay the undisputed amount of the bill by the Due Date of Payment, provided that the amount of the bills is based on joint meter readings/jointly signed statements and applicable tariff.
- (b) In case of Dispute on any of the bills, the Board shall notify the Company of any disputed amount within 15 days of receipt of bills, and the Company shall rectify the errors/shortcomings or otherwise notify its rejection of the disputed amount, with reasons thereto, within 5 days of the reference by the Board, failing agreement on which the provisions of Article 13 shall apply with respect to the disputed amount of such bill. If resolution of any Dispute requires the Company or the Board to reimburse to the Board or to the Company, the amount to be reimbursed shall bear interest, for the number of days from the Due Date of Payment by the Board or by the Company upto the Date of Reimbursement, at the rate equivalent to the prevailing prime lending rate of State Bank of India.

Following observation of auditors to the Board/Company, any error or discrepancy in any bill shall be referred to the other Party within a maximum period of three years from the Date of Presentation of that bill. The Company/Board shall rectify the error/shortcoming or otherwise notify its rejection of the claim with reasons thereto within fifteen (15) days of reference by the Board/Company. Failing agreement on such claims, provisions of Article 13 shall apply.

8.6 BILLING BY THE BOARD

The amount against supply of excess Energy pursuant to Section 6.1 shall be billed by the Board and paid for by the Company through crossed cheques only but on similar lines as applicable for the bills raised by the Company, as per the above provisions of this Article.

8.7 DATE OF PAYMENT/DATE OF REIMBURSEMENT

For the purpose of this Article, the Date of Payment/Date of Reimbursement shall mean the date on which the crossed cheque is delivered in person to the representative of the Company or the Board, as the case may be, or the day immediately succeeding the day on which such a cheque is sent through the registered post.

8.8 LEVIES, TAXES, DUTIES, CESS ETC.

Any statutory taxes, levy, duties, cess or any other kind of imposition(s) including tax on generation of electricity whatsoever imposed/charged by any government (Central/State) and/or any other local bodies/authorities on generation of electricity, after the Effective Date, shall be reimbursed by the Board to the Company on the quantum of Net Saleable Energy.

8.9 TOD/FREQUENCY LINKED ENERGY ACCOUNT

Subject to the provisions of Section 7.15, all the adjustments under the Agreement shall be made on monthly basis. However, in case the Board adopts the TOD and/or frequency linked Energy account/tariff for its consumers, the adjustment under the Agreement shall also be made on such time blocks matching with the TOD/frequency accounting. Detailed modalities in this regard would be mutually agreed between the Parties, at an appropriate time, and a supplementary agreement will be executed.

8.10 SET OFF OF AMOUNT

Any amount due to one Party by the second Party may be set off against the amount(s) due to the second Party by the first Party. However, such set off of amounts due to a Party may not

ARTICLE 9

UNDERTAKINGS

9.1 COMPANY'S UNDERTAKINGS

The Company hereby covenants to and agrees with the Board to:

- (a) complete the execution of the Project within the scheduled time as per Section 3.1 and in accordance with the Agreement;
- (b) design, install and commission the Project including transmission line upto Interconnection Point, in a good workman-like manner as per Prudent Utility Practices and in accordance with the provisions of Approved DPR with materials and equipment that are new and of utility-grade quality, in such a manner that the useful life of Project will be at least equal to the term of the Agreement;
- (c) work with and co-operate in good faith with the Board with respect to all of the Board's obligations and rights hereunder;
- (d) maintain the rated capacity throughout the term of the Agreement, subject to the normal derating/ deterioration during the life of the Project;
- (e) provide such periodic reports on the progress of the development and construction of the Project as may be required by the Board;
- (f) operate and maintain the Project in accordance with (i) Despatch Instructions (ii) Prudent Utility Practices within the Technical Limits (iii) all applicable Laws, rules, regulations, permits and licences and (iv) recommendations of manufacturers of the principal equipment of the Project;
- (g) enter into a separate agreement with the Board for the implementation of Interconnection Facilities;
- (h) buy and keep alive at its cost the following insurance policies during the entire Agreement period and schedule-III to this effect is attached.

- i) Third Party Insurance;
- ii) Natural Peril Insurance;
- iii) Construction Insurance;
- iv) Risks encountered during construction and operation and maintenance of the Project;
- v) Business Interruption Insurance;
- vi) Marine Transit Insurance (if required);
- vii) Statutory Workers Compensation Insurance;
- viii) Employer Liabilities Insurance; and
- ix) Any other insurance as appropriate.

- (i) not to transfer/dispose off or otherwise alienate any asset of the Project without prior approval of the Board;
- (j) make its own arrangement for standby construction power, if considered necessary, for use during the period when the Board is unable to supply the same to the Company; and
- (k) furnish performance guarantee for Rs. twenty (20) lacs per mega watt in shape of irrevocable Bank Guarantee/Letter of Credit in favour of Board, on completion of debt servicing period or ten (10) years from the Commercial Operation Date, whichever is earlier and valid for the remaining period of the Agreement period of 40 years.

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9.2 THE BOARD'S UNDERTAKINGS

The Board hereby covenants to and agrees with the Company to:

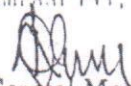
- (a) provide adequate construction power, subject to availability, to the Project work site at the cost of the Company including departmental charges as applicable to such category of consumers. The construction power shall be supplied at the Board's bulk supply tariff as applicable from time to time. The Board shall not be liable to pay any damages/ compensation to the Company in the event of non supply of construction power for reasons beyond its control;
- (b) provide such assistance and support as the Company may reasonably require in identifying and preparing the applications for Governmental Authorizations and in interfacing with governmental authorities in connection with obtaining Governmental Authorizations for the construction, completion and operation of the Project;
- (c) enter into a separate agreement with the Company as per Section 3.3 and make necessary arrangements to set up the Interconnection Facilities within the stipulated time schedule at the cost of the Company, subject to timely payment by the Company as per the payment schedules to be indicated by the Board from time to time;
- (d) work with and co-operate in good faith with the Company with respect to all of the Company's obligations and rights hereunder;
- (e) provide suitable transmission arrangements beyond the Interconnection Point for evacuation of power generated at Project and endeavour to minimize the loss of generation at the Project on account of transmission bottlenecks; and
- (f) make timely payments to the Company as per the provisions of this Agreement.

9.3 MUTUAL COVENANTS

Each Party will duly pay all rents, taxes, cess, fees, revenues, assessments, duties, other outgoings and other amounts owing by it and will observe all the rules and regulations pertaining to the same, and will not do or omit to do or suffer to be done anything which could reasonably be expected to adversely affect or prejudice the interest and rights of the other Party in any manner whatsoever.


Chief Engineer (Comm)
HPSEB, Shimla-4

For SHAKTI HYDRO ELECTRIC COMPANY PVT. LTD.


General Manager

ARTICLE 10

TERM, EVENTS OF DEFAULT AND TERMINATION

10.1 TERM OF AGREEMENT

The Agreement shall become effective upon execution and delivery by the Parties hereto and unless earlier terminated pursuant to provisions of the Agreement, shall have a term from the date hereof until forty (40) years after the Synchronisation Date of the first Unit of the Project.

- 10.2 In case the Government agrees to grant to the Company further extension beyond the aforesaid period in terms of the Implementation Agreement, the Board shall have the first right to continue purchasing the Net Saleable Energy from the Project during such extended period(s) also on the terms and conditions of the Agreement.

10.3 COMPANY DEFAULT

The occurrence and continuation of any of the following events, unless any such event occurs as a result of Force Majeure event or a breach by the Board of its obligations under the Agreement, shall constitute a "Company Event of Default".

- (a) breach of Implementation Agreement by the Company;
- (b) if the Project is designed, constructed or completed:-
 - i) in a manner that materially deviates from the provisions of the 'Techno-Economic Clearance' accorded by the Board; or
 - ii) in violation of any applicable Law of India; or
 - iii) in a manner which deviates materially from Prudent Utility Practices;
- (c) if the Company willfully or recklessly fails in material respect to operate and maintain the Project in accordance with Prudent Utility Practices or as per the requirements of the Agreement;
- (d) abandonment of the operation of the Project or failure by the Company to operate Project for a continuous period of thirty (30) days (other than due to a Force Majeure Event, capital maintenance or Board Event of Default);
- (e) if the Company, taking into account prevalent Grid conditions, regularly refuses to comply with Despatch Instructions;
- (f) bankruptcy, liquidation or dissolution of the Company pursuant to Law, except for the purpose of a merger, consolidation or reorganization that does not affect the ability of the resulting entity to perform all its obligations under the Agreement and provided that such resulting entity expressly assumes all such obligations;
- (g) the transfer, pursuant to Law, of either the rights and/or obligations of the Company hereunder or all or a substantial portion of the assets or undertakings of the Company, except where such transfer, in the opinion of the Board, does not affect the ability of the transferee to perform all its obligations under the Agreement and provided that such transferee expressly assumes all such obligations;

- (i) the Company assigns or purports to assign its rights and transfers its obligations under the Agreement or transfers or changes its assets, in violation of Section 15.10;
- (j) failure of the Company to make any substantial payment due under the PPA after receipt of notice of non-payment, (Rs. 1 lac or above);
- (k) failure of the Company to enter into Commercial Operation within 180 days of the Scheduled Date of Synchronization other than as a result of Force Majeure event or Board's Event of Default; and
- (l) transfer of equity of promoters below the acceptable level (35% of the equity) except to the extent permitted under the Financing Documents, provided that the prior approval of the Board has been obtained.

10.4 BOARD DEFAULT

The occurrence and continuation of any of the following events, unless any such event occurs as a result of Force Majeure event or a breach by the Company of its obligations under the Agreement, shall constitute the "Board Event of Default".

- (a) bankruptcy, liquidation or the dissolution, pursuant to Law, of the Board except for purposes of a merger, consolidation, privatisation or reorganisation that does not affect the ability of the resulting Party to perform all its obligations under the Agreement and provided that the Board's successor under the Agreement expressly assumes the obligations of the Board under the Agreement;
- (b) the transfer, pursuant to Law, of either the rights and/or obligations of the Board hereunder or all or a substantial portion of the assets or undertakings of the Board except when such transfer does not affect the ability of transferee to perform all its obligations under the Agreement and provided that such transferee expressly assumes the obligations of the Board under the Agreement;
- (c) if the Board fails to make payment of undisputed amount of the monthly bill amounting to Rs. one lac and above within three months after the Due Date of Payment for that monthly bill;
- (d) the Board commits material breach of the Agreement;
- (e) the Board assigns or purports to assign its rights and transfers its obligations under the Agreement or transfers or changes its assets, in violation of Section 15.10; and
- (f) breach of Implementation Agreement by the Government of H.P.

10.5 NOTICE OF DEFAULT

- (a) Upon the occurrence of a Company's Event of Default or a Board's Event of Default, as the case may be, the Board or the Company, as the case may be, shall deliver a notice to the other Party ("Notice of Default") which shall specify in reasonable detail the Company Event of Default or the Board Event of Default, as the case may be, giving rise to the Notice of Default to the other Party.
- (b) Following the giving of a Notice of Default, the Parties shall consult each other for a period upto thirty (30) days having regard to all the circumstances as to what steps shall be taken

expires. The cure period shall be applicable only when there is an operational default in the Project which the Company/Board can cure. In the event of default where the Company/Board has transferred its rights and obligations to the third party and/or the Company/Board has been dissolved pursuant to law, bankruptcy etc. the consultation and cure period will not be applicable.

10.6 NOTICE OF TERMINATION

- (a) At the expiry of the cure period as per Section 10.5 (b) and unless the Parties shall have otherwise agreed or in the event of default giving rise to the Notice of Default having been remedied, the Party having given Notice of Default may give a termination notice (i.e. either a Board Termination Notice or Company Termination Notice, as the case may be) to the other Party stating that the Agreement shall stand terminated on the expiry of the notice period if the default is not remedied within that period. The period of notice in case of defaults shall be 7 (seven) days. The notice period(s) can however be extended with mutual agreement.
- (b) If at any time after the Company is entitled to deliver a Company termination notice but has not done so, the Company shall be entitled to deliver to the Board a notice (a "Company Termination Notice").
- (c) If at any time after the Board is entitled to deliver a Board termination notice but has not done so, the Board shall be entitled to deliver to the Company a notice (a "Board Termination Notice").
- (d) Following the delivery of a "Company Termination Notice" in respect of the Board default described in Section 10.4(c), the Company shall have the right to enter into agreements, with the approval of the Board (which permission will not be unreasonably withheld), to sell any portion of the Net Saleable Energy (ensuring Govt. Supply to Board) to any third party or to make captive use of such Energy, for as long as Board default continues. Company shall make arrangement with the Board or other utilities to wheel the power to third parties at mutually agreed wheeling charges. In case Company does not enforce its right under this clause, provisions of Section 10.8 shall apply.

10.7 CONSEQUENCES OF TERMINATION

10.7.1 TERMINATION ON ACCOUNT OF BOARD EVENT OF DEFAULT

If the Agreement is terminated in accordance with Section 10.6 on account of Board's Event of Default as per Section 10.4, the Company shall have the option to enter into a power sale agreement with any other utility ensuring, however, Govt. Supply to the Board. For this purpose, the Company shall be entitled to sell power to any other electricity board/utility or consumers to the extent permitted by Law at the rates agreed by the Company and the respective electricity board/utility/consumer. Electrical power shall be wheeled through the transmission system of the Board or other utilities on payment of mutually agreed wheeling charges. The term of such agreement for sale of power shall not, in any case, exceed the balance term of the Agreement.

10.7.2 TERMINATION ON ACCOUNT OF COMPANY EVENT OF DEFAULT

- (a) If the Agreement is terminated in accordance with Section 10.6 on account of Company's Event of Default as per Section 10.3, the Company shall, at the Board's option, sell the Project to the Board. The Board shall have the option to buy the Project, which is at a price lower of :

- ii) the fair market value of the plant to be assessed by independent valuer or institution of valuers as directed by the Commission and further subject to due diligence and prudence test by the Commission; or
- iii) Sum of outstanding debts to scheduled and approved banks, financial institutions, alongwith the interest, if any, and foreign equity and Indian public equity but excluding the promoter's equity.

For this purpose, depreciated cost of the Project shall mean the cost of the completed works as per the Approved DPR, depreciated for the period falling between the Commercial Operation Date of the Project and the proposed date for taking over the Project from the Company @ 4% per annum.

- (b) The Board may exercise such option (Buy-Out Option), subject to the lenders' rights under the Agreement, at any time within 120 days after the Board delivers the Board Termination Notice to the Company.

Provided that, if the Commission is satisfied that there is doubt with regard to the genuineness of the Company Event of Default, it may apply due diligence and prudence test or alternatively adjudicate upon the matter or refer the matter to arbitration, in order to arrive at just and fair conclusion with regard to the genuineness of the Event.

10.7.3 TERMINATION ON ACCOUNT OF TERMINATION OF IMPLEMENTATION AGREEMENT

The Agreement shall get terminated in the event of termination of Implementation Agreement without any liability to the either Party on this account. The Company shall however in such an event keep the Board informed of various stages of the process of termination of Implementation Agreement.

10.7.4 PROCEDURES FOR DETERMINING PURCHASE PRICE AND TO EFFECT TRANSFER OF PROJECT TO THE BOARD

Once a Buy-Out Option has been exercised by the Board under the provisions of the Agreement, the Board will determine the sale price in accordance with Section 10.7.2 and make the payment thereof to the Company, and/or, directly to the lenders, if so required by the lenders, within a period of two months of termination of the Agreement and simultaneously therewith, the Company shall transfer and assign to the Board all of its rights, title and interest in the Project except for the cash in hand or any amount to the credit of the Company in bank accounts, trade and book debts or receivables accruing to the Company prior to transfer date unless due consideration for these can be mutually agreed upon between the Parties. The Company, shall, however be responsible for all liabilities and obligations of the Company that have accrued prior to such transfer. Transfer of Project to

Board pursuant to Buy-Out Option and subsequent payment by the Board of the sale price determined according to Section 10.7.2 (a), shall further be subjected to the following:

- a) No debt, claim for damages or other liability, whether actual or contingent, relating to the Project and incurred before the date of the Buy-Out Option will be assumed by the Board unless it chooses to and can reach agreement of the same with the Company and, if necessary, the lenders or other creditors (where such agreement is necessary in order to give legal effect to the assumption thereof by the Board), subject to clause (b) below. Due allowance shall be made in computing the sale price to take account of liabilities assumed by the Board and liabilities retained by the Company.