

AGREEMENT¹ BETWEEN THE GOVERNMENT OF INDIA AND THE ROYAL GOVERNMENT OF BHUTAN REGARDING THE CHUKHA HYDRO-ELECTRIC PROJECT

New Delhi, 23 March 1974

The Government of INDIA

AND

THE Royal Government of BHUTAN,

BEARING in mind the friendly relations subsisting between the two Governments and their peoples and wishing to strengthen the same,

NOTING the desire of the Royal Government of Bhutan to develop the hydro-electric potential in their country and their request to the Government of India for assistance in this regard,

NOTING FURTHER the Government of India's willingness to co-operate with and assist the Royal Government of Bhutan in attaining this objective,

HAVE, with respect to the Chukha Hydro-Electric Project in Bhutan, agreed as follows :

Article 1

The Chukha Hydro-electric Project in Bhutan (hereinafter called "the Project") envisages the construction of the following :

- (i) a 40 m (130 ft.) high diversion dam, located about 1.60 km upstream of the point of confluence of Ti-Chu with Wong Chuk where the river bed lies at + 1689 m, having a maximum pond level of + 1716.20 m,
- (ii) a 6560 m (21517 ft.) long head race tunnel, 71.5 cumecs (2500 cusecs) capacity, taking off on the left bank and conveying the waters to an underground power house,

¹ Came into Force on 23 March 1974.

- (iii) a power house having an installation of 4 units of 84 MW each (including stand by) operating under an average gross head of 466.34 m (1530 ft.),
- (iv) 220 KV transmission system from Chukha to Phuntsholing (Bhutan-India border) for bulk supply of power to India,
- (v) 66 KV transmission Link from Chukha to Thimpu and Chukha to Phuntsholing together with sub-stations at Thimpu and Phuntsholing and colonies for staff in charge of the sub-stations,
- (vi) any other works that may become necessary and are agreed upon between the two Governments.

Article 2

The project will be owned solely by the Royal Government of Bhutan.

Article 3

The Government of India agree to provide funds for the financing of the project. For this purpose the Government of India will make available to the Royal Government of Bhutan a sum equivalent to 60% of the estimated total cost of Rs. 83.00 crores for the project as a grant and a sum equivalent to 40% of the estimated total cost as a loan. The loan shall carry an interest of 5% per annum and be repayable in 15 years in equated annual installments, the first repayment commencing 3 years after each drawal of the loan.

The Government of India agree to provide additional funds, as mutually determined, for the completion of the project, in the same proportion and on the same terms.

Article 4

For the construction of the project, the Royal Government of Bhutan and the Government of India agree to the setting up of "The Chukha Project Authority". The Authority will be constituted as an autonomous body. Her Royal Highness Ashi D.W. Wangchuk, Representative of His Majesty in the Ministry of Development, will be the Chairman of this Authority. All the powers of the Authority will be vested in the chairman, H.R.H. Ashi D.W. Wangchuk, as Representative of His Majesty the King of Bhutan. The Chairman will be assisted by the Directors of the Authority in the administrative, technical, financial and organisational matters connected with the

execution of the project. The Authority will frame its own rules of business.

There will be four Directors to be nominated by the Royal Government of Bhutan who will be Bhutanese nationals and three Directors to be nominated by the Government of India who will be Indian nationals. The General Manager, CHUKHA Project, to be appointed by the Authority with the approval of the two Governments, will be the ex-officio Director-Secretary of the Authority.

The Chief Engineer, Chukha Project, and the Financial Adviser & Chief Accounts officer, Chukha Project, will be the permanent observers at the meetings of the Authority.

The General Manager will be in overall charge of the Project under the supervision and guidance of the Chairman of the Authority. He will be vested with sufficient powers to enable him to function in an effective manner and implement the Project as per schedule. There will be a suitable organisation under the General Manager to assist him.

Article 5

Except in regard to lower categories of staff and the labour force, the recruitment of technical, administrative and other personnel of the Authority will be confined to the nationals of either country.

The Water and Power Development Consultancy Services (India) Ltd., New Delhi will be the consultants for the Chukha Project Authority.

Article 6

After the completion of the project, the Royal Bhutan Government will continue to avail itself of the technical and managerial expertise available in India, through such arrangements as may be worked out from time to time.

Article 7

The requirement of funds for the execution of the Project will be worked out by the Authority in accordance with the programme and progress of construction. The release of funds on the basis of the recommendations of the Authority will be mutually decided by the two Governments from time to time.

Article 8

The Royal Government of Bhutan agree that surplus power from the project, that is, all the power over and above that required for use in Bhutan, shall be sold to the Government of India.

The Government of India agree to purchase all surplus power from the project at the agreed rate.

The initial rate at which this power will be sold by Bhutan to India at Phuntsholing shall be determined at the time of the commissioning of the Project on the basis of the formula forming an Annexure to this agreement.

This rate of power will thereafter be reviewed by the two Governments at the end of each 4-year period. The review would be guided by the following criteria :

- (i) increases, if any, in the operation and maintenance charges of the Chukha Project,
- (ii) the average percentage increase in the cost of generation of Hydro-electric power during the previous four years in the Eastern-North Eastern Region of India,
- (iii) any other factor relevant that time.

No duty, surcharge or any other form of levy will be charged by Bhutan on the power sold by Bhutan to India.

Article 9

The Royal Government of Bhutan agree to make available, free of cost, land required for the project. Timber required for the Project would be provided free of royalty.

Article 10

No customs duty, royalty, sales tax or any other tax will be levied by the Royal Government of Bhutan on construction materials and equipment for the Project.

Article 11

The Government of India agree to supply upto 5,000 KW of power from the Eastern Region Power Grid to meet the construction requirements. The 66 KV Chukha-Phuntsholing line referred to in (v) of Article I can be used for transmitting this power from the India-Bhutan border to the project site.

Payment for this power will be as mutually agreed upon.

Article 12

The Government of India and the Royal Government of Bhutan agree to provide full facilities for the installation of telephone, telegraph, telex and radio communications that are required for the construction and operation of the Project.

Article 13

Any difference regarding the interpretation or application of any provision of this Agreement shall be resolved by mutual consultations between the two Governments.

Article 14

This Agreement shall enter into force upon signature and shall be valid for 99 years. It may be amended or modified at any time by agreement between the two Governments.

IN WITNESS WHEREOF, the Parties have caused to be subscribed thereto the signatures of their duly authorised representatives.

DONE in the English language and signed at New Delhi on the 23rd day of March, 1974.

On behalf of the
Government of India

On behalf of the
Royal Government of Bhutan

Sd/-

Sd/-

K.C. PANT
Minister for Irrigation
and Power

H.R.H. ASHI D.W. WANGCHUK
Representative of H. M. the King
in the Ministry of Development

ANNEXURE

BASIS FOR ARRIVING AT THE RATE OF SALE OF POWER BY BHUTAN TO INDIA
FROM THE CHUKHA PROJECT

(Reference: Article 8 of the Agreement)

Total cost of Project = Rs. C crores

Grant component (G) would be = Rs. $C \times \frac{60}{100}$

$$\text{Loan component (L) would be} = \text{Rs. } C \times \frac{40}{100}$$

Cost of generation of power

$$(1) \text{ Annual interest charges} = \text{Rs. } \frac{L}{2} \times \frac{5}{100} \times \frac{15}{12} = \text{Rs. } \frac{L}{32} \text{ crores}$$

$$(2) \text{ Operation and Maintenance Charges @ 1\% of C} = \text{Rs. } \frac{C}{100} \text{ crores}$$

$$(3) \text{ Special Maintenance @ Rs. 20 lakhs per year}$$

$$\text{Total Cost} = \text{Rs. } \left(\frac{L}{32} + \frac{C}{100} + 0.20 \right) \text{ crores}$$

$$(4) \text{ Gross return on capital employed by Bhutan @ 10\%} = \text{Rs. } \frac{G}{10} \text{ crores}$$

(The grant component of the Project is being taken as the capital invested by Bhutan on the Project)

$$(5) \text{ Total revenues from sale of power} = \text{Rs. } \left(\frac{L}{32} + \frac{C}{100} + 0.20 + \frac{G}{10} \right) \text{ crores}$$

(6) The units to be generated per annum by the project are 900 million units of firm power and 810 million units of secondary seasonal power. The rate for seasonal power would be 50% that of firm power. Thus, total firm power of the project would be equivalent to 900 million + 405 million units = 1305 million units. Power generated above the firm power would thus be paid at half the rate of firm power.

(7) Sale price of firm power would thus be

$$= \text{Rs. } \left(\frac{L}{32} + \frac{C}{100} + \frac{G}{10} + 0.20 \right) \times 10^9 + (1305 \times 10^6) \text{ Paise}$$