

**AGREEMENT ON THE CANADA-INDIA  
COLOMBO PLAN KUNDAH HYDRO-ELECTRIC  
POWER PROJECT**

**New Delhi, 29 December 1956**

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The Government of India and the Government of Canada, desiring to conclude an agreement concerning the Canadian Government's contribution under the Colombo Plan, have agreed as follows :

*Article I*

As part of its contribution under the Colombo Plan the Government of Canada will assist in financing the Kundah Hydro-Electric project in the State of Madras.

*Article II*

The contribution of the Government of Canada will not exceed \$ 20 million and within this amount will comprise, in accordance with the terms of the accompanying Annex and Appendix I, the external costs of engineering services, specified construction equipment, hydraulic electrical and mechanical equipment for the power plant, materials and equipment for transmission lines and the external cost of specified installation and or erection at the site. Where practicable and subject to agreement between the two governments some of the required equipment may be manufactured in India from materials provided by Canada. Counterpart funds resulting from other Canadian Colombo Plan aid to India, in the amount to be agreed between the two Governments, may be used to finance local costs at the project.

*Article III*

The Government of India will provide the site for the power plant and transmission lines and will also be responsible for the construction of the dams and power houses, transmission lines and ancillary works, and for the supply of specific auxiliary equipment and services as set

out in the Annex. In the event that some of the required equipment specified in Article II is manufactured in India from materials provided by Canada the cost of fabrication or manufacture will be met by the Government of India. The Government of India will provide all mechanical, electrical, administrative and other services and facilities required at the site. In accordance with normal Colombo Plan practice, the Government of India will be responsible for providing local labour and materials which are essential for the performance of the services specified in the Annex. The Government of India, following past practices in relation to Colombo Plan shipments from Canada, will arrange for shipment and bear freight charges and will arrange for and assume the cost of insurance on any equipment and materials destined for the project, or will bear the cost of replacement in the event of loss.

#### *Article IV*

The distribution of the various costs between the Governments of Canada and India will be in accordance with understanding reached between representatives of the the two Governments, which is recorded in the Annex.

#### *Article V*

The execution and supervision of the project will be in accordance with the procedures described in the Annex.

#### *Article VI*

The Annex to this Agreement may be amended from time to time by mutual agreement in ways not inconsistent with the Agreement by letters exchanged between the High Commissioner for Canada in India and the appropriate Department of the Government of India.

#### *Article VII*

This Agreement takes the place of all previous Agreements and understandings on this matter between the two Governments or between officials of the two Governments.

IN WITNESS WHEREOF the undersigned, being duly authorised by their respective Governments, have signed the present Agreement and have affixed thereto their seals.

DONE in duplicate at New Delhi this 29th day of December, 1956, in the English language.

On behalf of the Government of  
India

(Sd.) T.T. KRISHNAMACHARI  
Minister for Finance  
Government of India

(Sd.) BHAKTAVATSALAM  
Minister for Industries and  
Agriculture  
Government of Madras

On behalf of the Government of  
Canada

(Sd.) PAUL MARTIN  
Minister for National Health and  
Welfare, Government of Canada

(Sd.) ESCOTT REID  
High Commissioner  
for Canada in India

#### ANNEX

1. The Government of Canada and the Government of India agree that their respective responsibilities in the joint financing and construction of the Kundah Project are as hereinafter set out.
2. The Government of India will make such arrangements with the Government of Madras as are necessary for the implementation of the terms of this agreement.

#### CONSULTING ENGINEERING SERVICES

3. The Government of Canada will provide the services of a Canadian Consulting Engineer hereinafter referred to as the Consulting Engineer, who, in addition to such other functions as are specified in this Annex, will on the basis of the specifications submitted by the Government of India prepare the final specifications in a form which will enable the Government of Canada to call for tenders. For this purpose he will be free to make with the concurrence of the appropriate Indian authorities, such changes in the specification submitted by the Government of India as he may consider necessary.

4. The Consulting Engineer will also evaluate the tenders when received and, after consultation with the Government of India (who will depute their Engineers to Canada for this purpose), advise the Government of Canada on the purchase of the equipment which the Government of Canada is to supply.
5. The Consulting Engineer will be responsible for co-ordination between the different manufacturers and suppliers to ensure that the equipment is correctly supplied without duplication or omission.
6. The Consulting Engineer will be responsible for supplying all foundation, excavation and layout drawings for the power houses, penstocks, valves and transformers to facilitate the erection of the equipment when received.
7. The Consulting Engineer will supervise at site the erection of all equipment supplied by the Government of Canada.
8. The Consulting Engineer will coordinate the inspection of the equipment during manufacture and also arrange for initial testing before shipment to India. He will also be responsible for final testing of equipment after erection and before handing over the project to the Government of India.
9. The Consulting Engineer will maintain one or more qualified engineers at the site in India, from the time the erection of the equipment supplied by the Government of Canada is due to commence, and these engineers shall be responsible for supervising the work of manufacturers' representatives at the site and for the proper control of all such work.
10. In order that the Consulting Engineer and the Government of India shall be in the closest possible touch with each other during the period of manufacture and in order that a close liaison shall be maintained in all phases of the work, the Government of India will appoint a resident engineer to be located at the headquarters in Canada of the Consulting Engineer, and to act as liaison officer between the Consulting Engineer and the Government of India as long as such liaison shall mutually be thought to be necessary.

#### CIVIL ENGINEERING WORKS

11. Civil Engineering Works, hereinafter called Civil Works, for the purpose of this Agreement will include the construction of three dams at Emerald, Avalanche and Upper Bhavani; three connecting tunnels of the following sizes :

- (a) 14,600 ft., 10' diameter,
  - (b) 12,000 ft., 10' 9" diameter,
  - (c) 8,450 ft., 8' 6" diameter;
- two power house buildings; approach roads; camps; buildings (temporary and permanent); and works of a similar nature.
12. All these Civil Works will be completed under the responsibility and for the account of the Government of India, but the Government of Canada will provide the components mentioned in paragraph 14 of this Annex.
13. In order to satisfy the Government of Canada as to the soundness and practicability of design, the Government of India will supply the Consulting Engineer with all such drawings and other technical data as are considered necessary to enable the Consulting Engineer to arrive at a proper appraisal of the proposed plans for the design of the Civil Works. The Consulting Engineer will send representatives to the work site at regular intervals to be mutually agreed upon for the purpose of viewing the Civil Works and reporting to the Government of Canada on their progress.
14. The components for the Civil Works to be supplied by the Government of Canada as per specifications approved by the Consulting Engineer with the concurrence of the engineers deputed by the Government of India for this purpose, will be as follows :
- (a) gates, screens and valves, for the dams;
  - (b) low pressure pipe lines, penstocks, meters and valves for power houses Numbers I & II;
  - (c) steel structurals, reinforcing steel and accessories for buildings for power houses Number I & II;
  - (d) construction equipment as listed in Appendix I.
15. With regard to the supply of penstocks and the low pressure pipelines, the welding will be done in Canada except such welding as will have to be done at the site. For this purpose, the Consulting Engineer will arrange that the suppliers send qualified welders to the work site; their work will be under the supervision of the manufacturers' representatives and carried out to the satisfaction of the Consulting Engineer and the Government of India. Penstocks and low pressure pipelines will be tested according to standard practice by the manufactures' representatives and to the

satisfaction of the Consulting Engineer and of the Government of India.

16. The Government of India will be responsible for supplying and paying necessary skilled and unskilled personnel to help the welders in this work but the responsibility for directing the work rests with the manufacturers and the Consulting Engineer.
17. The Government of India will construct the foundations and place the pipes in position upon them in accordance with the foundation drawings that will be supplied by the Consulting Engineer.

#### POWER HOUSES AND POWER HOUSE EQUIPMENT

18. The layout drawings of the two power houses supplied by the Government of India to the Consulting Engineer will be revised wherever necessary to accommodate the equipment which the Government of Canada will supply, such revisions to the design of the power houses will be made with the concurrence of the Government of India.
19. The power house equipment to be supplied by the Government of Canada as per specifications approved by the Consulting Engineer with the concurrence of the engineers deputed by the Government of India for this purpose, will be as follows :
  - (a) turbines, inlet valves and accessories;
  - (b) generators, exciters, voltage regulators and accessories;
  - (c) switchgear;
  - (d) power house auxiliaries, including fire protection equipments.
  - (e) step-up transformers and accessories;
  - (f) outdoor switchgear and structures;
  - (g) power and control cables;
  - (h) handling equipment, cranes and accessories.

#### SUB-STATION AND TRANSMISSION REQUIREMENTS

20. Subject to the limitation on the total Canadian contribution specified in Article II of the Agreement the Government of Canada will supply the following sub-station and transmission equipment :
  - (a) towers or steel for towers;
  - (b) tower line hardware;

- (c) insulators;
  - (d) conductors;
  - (e) ground cables and other accessories;
  - (f) carrier current equipment for communication and relaying;
  - (g) sub-station equipment.
21. The quantities of all the above items will be agreed upon between the Government of India and the Consulting Engineer and confirmed by the Government of Canada. The Government of India will be responsible for the erection and commissioning of the transmission lines and sub-stations.

#### ADMINISTRATIVE FACILITIES AND PROCEDURES

22. The Government of India will facilitate the prompt clearance and expeditious transshipment through the Indian Customs without cost to the Government of Canada for import, customs and other duties and taxes of all necessary materials and equipment supplied by the Government of Canada including engineering instruments and equipment. This provision will cover *bona fide* personal and household effects (including one motor car per family) of all Non-Indian personnel whose salaries and travelling expenses to and from India are paid out of the Canadian contribution provided :
- (a) that these effects are brought in on first arrival as accompanied or unaccompanied baggage; and
  - (b) that these effects other than those entitled to free entry under the ordinary baggage rules are liable to payment of duties, etc. if they are sold or otherwise disposed of in India.
23. The Government of India will ensure that the Indian Customs' Inspection does not disturb the protective packing of the electrical equipment and/or material. If complete or detailed inspection is necessary, arrangements may be made for such inspection to be done at the site.
24. The Government of India will make available to the Canadian manufacturers' representatives and also to the Consulting Engineers' representatives at the site free furnished accommodation, official transport and hospital and medical services on the scale available to the officials of the Government of Madras.

25. The Government of India will keep the Consulting Engineer and such Canadian personnel in India connected with the project informed of the local laws and regulations that may affect their work and hold the Consulting Engineer and such Canadian personnel harmless from the consequences of any act connected with the work on the project which is not inherently immoral, criminal or fraudulent on their part.
26. The Government of India will provide, as promptly as possible :
- (a) all permits, licences, etc., necessary to enable the Consulting Engineer and his representatives, the Canadian manufacturers' representatives and such other Canadian personnel to carry out their respective responsibilities connected with the project;
  - (b) export and exit permits, where necessary, for the return of any of the materials, equipment, effects or personnel provided by the Government of Canada.
27. The Government of India will pay Indian income-tax and other taxes on payments made to non-Indian firms and personnel out of the Canadian contribution, if any such taxes be payable.
28. The Government of India will deal with the settling, without cost, to such non-Indian firm or personnel paid out of the Canadian contribution, of any claims which may be made against any such firm or employee with respect to liability for :
- (a) injury or death of any person arising from the work;
  - (b) injury or death to any person during the performance of his duties; and
  - (c) property damage.

This provision will not relieve any person from liability for any act inherently immoral, criminal or fraudulent.

If at any time during the period of participation of Canada and India in the Colombo Plan the Government of India proposes to transfer any of the goods provided by the Canadian Government under this Agreement, the Government of India will inform the Government of Canada of the terms and conditions of the proposed transfer and take into account any views expressed by the Government of Canada regarding these terms and conditions.

## APPENDIX I

CONSTRUCTION EQUIPMENT REQUIRED  
KUNDAH HYDRO-ELECTRIC POWER PROJECT

Item	Estimated requirement	To be supplied by Madras	To be supplied by Canada
Crushers 120 cf. per hr. complete with 1/2" round perforated rotating screen electric drive	20	12	8
Concrete mixres 1 cu. yd. Electric Drive on skids	36	18	18
Concrete mixers 1/2 cu. yd. Electric Drive on 4 wheels	14	7	7
Air Compressors 600 cfm stationary electric	8	8	Nil
150 cfm compressors diesel drive, mobile	4	2	
210 cfm diesel mobile compressors			2
Tip truck (Mine Cars) 1 cu. yd. capacity 24" gauge	700	350	350
Diesel locomotives about 40 HP for 24" gauge	18	9	9
10 ton winches for handling penstock electric drive	8	3	5