

MoEF&CC – 9th EAC (River valley & Hydro-electric Projects)
Meeting held on 24.10.17 (Item No.9.5) –

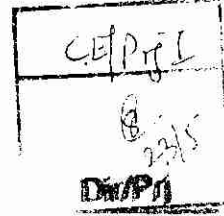
Kundah Pumped Storage Hydro-electric Project (4x125 MW)/Nilgiris District, Tamil Nadu
- Extension of validity of EC

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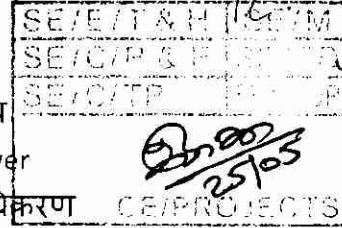
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भारत सरकार
Govt. of India
विद्युत मंत्रालय
Ministry of Power

केन्द्रीय विद्युत प्राधिकरण
Central Electricity Authority

जल विद्युत परियोजना मूल्यांकन-II प्रभाग
Hydro Project Appraisal-II Division



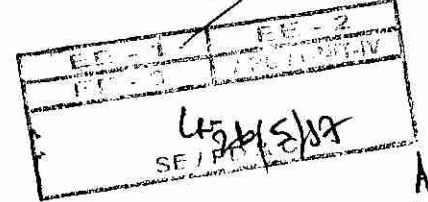
Most Immediate



सं: 7/11/04/2017/एचपीए/ - II 1363

दिनांक : 12/5/2017

To,
CMD, Tamil Nadu Generation & Distribution Corp. Ltd.,
10th Floor, NPKRR, Maaligai, 144, Anna Salai,
Chennai - 600 002
Phone: 044-28521300



विषय: Minutes of Meeting of the Committee for studying Hydro Pumped Storage and Wind Power Projects in the Country - issue of Kundah PSP - rag .

As per the minutes of the meeting of the Committee "For studying Hydro Pumped Storage and Wind Power Projects in the Country" held on 20.4.2017 in Ministry of Power, New Delhi, (copy enclosed), the representative of Tamil Nadu Govt. has informed that Kundah PSP (500 MW) is under construction.

As per CEA records, M/s TNEB had submitted DPR of Kundah pump storage project (4x125=500MW) with an estimated cost of Rs.1005.20 Crores in Nov, 2006 in CEA for concurrence. The DPR of the project was examined and returned to TNEB in Dec, 2007 due to non resolution of inter-state issues between Kerala, Tamil Nadu, Karnataka and Puducherry.

In view of the above statement given by representative of Tamil Nadu Govt. that Kundah PSP is under construction, it is requested to kindly intimate that who has concurred the project and what is exact status as on date.

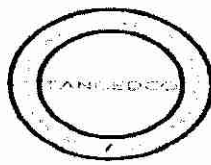
Yours Sincerely,

शिवकुमार

(श्रवण कुमार)

निदेशक (एच.पी.ए. II)

Copy to: Principal Secretary, Energy Department Secretariate, Govt. of Tamil Nadu, Namakkal Kavignar Maaligai, Fort St. George, Chennai - 600 009.



From
Er.R.Kamaraj, B.E(Hons).,M.E.,
Chief Engineer/Projects-I,
5th Floor, Western Wing, NPKRR Maaligai,
144, Anna Salai,
Chennai – 600 002.
Cell No: 9445857543
Email:cepr@tnebnnet.org

To
The Director,
Hydro Projects Appraisal-II Division,
Central Electricity Authority,
Sewa Bhawan, R. K. Puram, Sector-1,
New Delhi - 110 066

Lr No: CE/P/SE/PD&C/EE/C-1/A3/F.KPSHEP-Pack-I/D. 59 /2017, dt.08 .06.2017.

Sir,

Sub: TANGEDCO- Kundah Pumped Storage HEP – (4x125MW)/ Nilgiris District-
Details- Furnished.

Ref: Your letter.No.7/11/04/2017/Dt.12.05.17.

-oOo-

1. Referring to the letter cited, the following details are furnished:

- I) i. The 'Detailed Project Report' on Kundah Pumped Storage HEP (4x125MW) was returned by CEA during December-2007 before notification of Cauvery Water Disputes Tribunal Award. Now, the CWD Tribunal Award has been notified (February-2013) wherein (Clause- xviii) it is mentioned that, 'Nothing in the order of this Tribunal shall impair the right or power or authority of any State to regulate within its boundaries the use of water or to enjoy the benefit of water within the State in a manner not inconsistent with the order of this Tribunal'.
- ii. The Kundah Pumped Storage HEP is neither a conventional HEP nor an irrigation project. It is purely a pumped storage project involving only recycling of 5.184Mm³ (0.18TMC) of water between two existing reservoirs. No new reservoir is envisaged in this project. The quantum of recycling of water is only 0.18 TMC which does not in any way affect or have any bearing on the Inter State allocation of water.
- iii. This scheme gives quality and reliable power to meet the peak hour demand.
- iv. Already Ministry of Power/GOI is driving to install more number of Pumped Storage Projects to augment the vast growth of Power under Non Conventional Energy resources such as wind, solar, etc., This project will fulfill the above objective.
- v. Moreover, the Kundah basin depends entirely on the catchments in Tamil Nadu and on the down stream side the river flows only in Tamil Nadu. Therefore, Inter State issue does not arise. A copy of basin map is also enclosed for reference.

DESPATCHED ON.....
BY E/PD ON.....
BY SPL ON.....

II) Government of Tamil Nadu accorded approval for execution of this project in 3 phases within the State Government's powers of sanction vide GOs cited below:

- a) Approval for execution of Phase-I (1x125 MW) accorded vide GOTN, GO. Ms. No.133.Dt. 3.12.08 for Rs.486.46Cr.
- b) Approval for execution of Phase-II (2x125 MW) accorded vide GOTN, GO. Ms.No.50, Dt. 29.4.13 for Rs.498.58Cr (Addl. capacity).
- c) Approval for execution of Phase-III (1x125 MW) accorded vide GOTN, GO. Ms.No.44 Dt. 20.6.14 for Rs.229.86Cr(Addl. capacity).

Accordingly the works have been commenced for this project and is under progress. Copies of the above GO's are enclosed.

2) Present Status of the project:

Construction of Access Tunnel for a length of 1000m and cable cum Ventilation Tunnel for a length of 500m have been completed. Approach road to all project components have also been completed. Expenditure towards the above and for other predevelopment works has been incurred for Rs.120 Crore. Financial tie-up has been already made with REC.

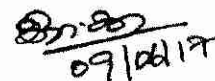
Tenders for other major civil works in 2 EPC packages are under finalization and works will be awarded by June-2017.

The tender specification for E&M works of Phase I (1x125MW) is under finalization. Tender is proposed to be floated by June-2017.

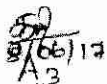
- 3) M/s WAPCOS (a Central Government agency under CWC/ GOI) has been engaged as Consultant to this project from Specification preparation to Commissioning.
- 4) As requested by the Director/ Hydro Project Monitoring Division, vide CEA Ir dt.04.05.2017, the details for monitoring the progress of this project have been furnished to CEA in TANGEDCO Ir dt.23.05.2017. (Copy enclosed). Monthly progress report for the month of May-2017 also has been sent to the Monitoring Division.

This is for your kind information.

Yours faithfully,


09/06/17

o/c Chief Engineer/Projects-I 1/2
(Appd dt. below Sir.)


5/6/17
A3


EE/C-I
9/6/17

- Encl: 1) Basin Map.
2) Government of TN.G.O – 3 Nos.
3) TANGEDCO Ir. dt. 23.05.2017 copy.

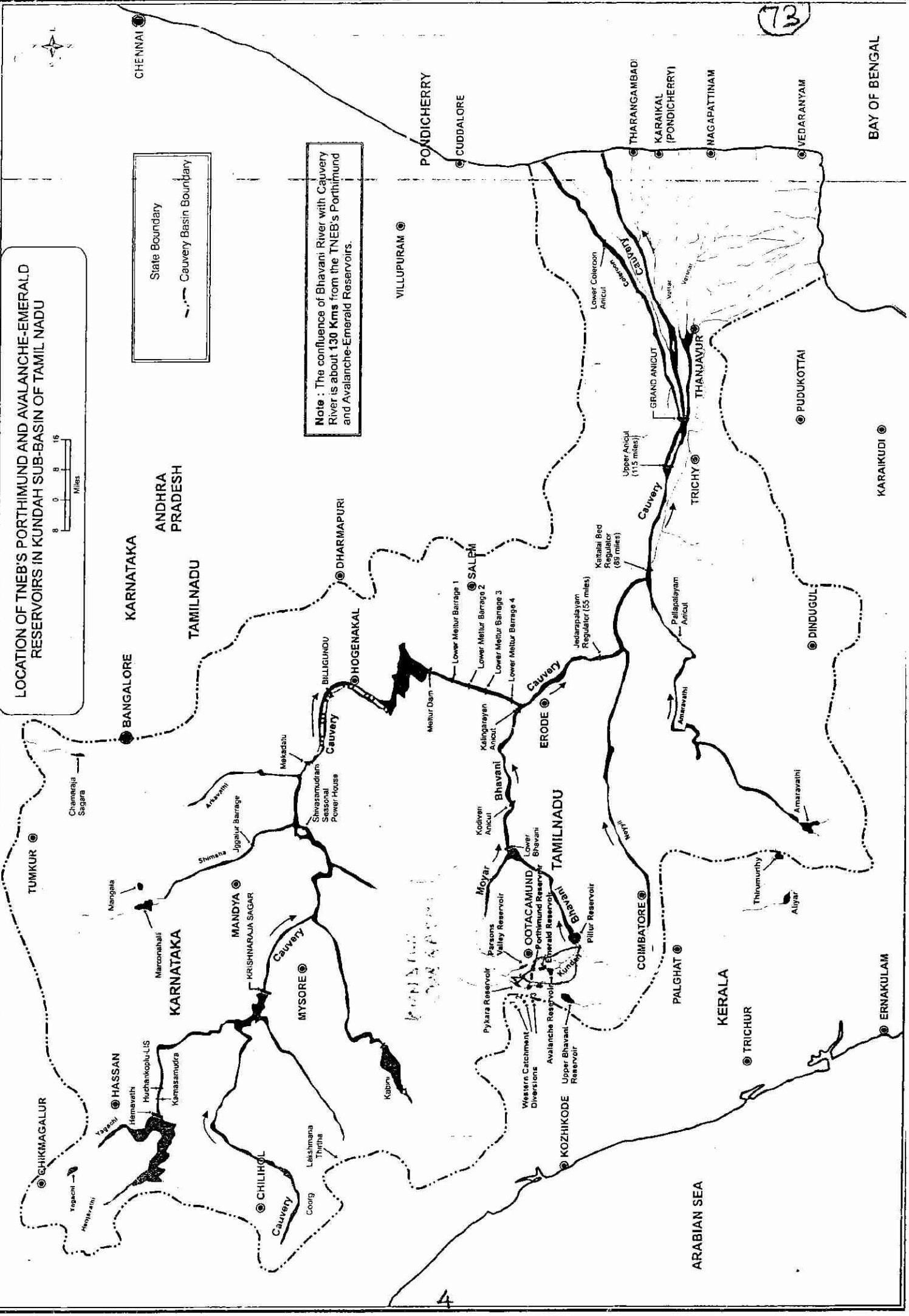
LOCATION OF TNEB'S PORTHUMUND AND AVALANCHE-EMERALD RESERVOIRS IN KUNDAH SUB-BASIN OF TAMIL NADU



State Boundary

Cauvery Basin Boundary

Note : The confluence of Bhavani River with Cauvery River is about 130 Kms from the TNEB's Porthumund and Avalanche-Emerald Reservoirs.



MG
CETEN



(3a)

DEC 2008
39
T.N.E.B. CHENNAI

Abstract

25 - 61
75-91

Energy - Tamil Nadu Electricity Board- Kundah Pumped Storage Hydro Electric Project in the Nilgiris District - Taking up the execution of the Project in two Phases - Government's approval for Phase - I - Accorded.

ENERGY (A2) DEPARTMENT

G.O. MS.NO.133

Dated: 3.12.2008

col Br
dm
2.11.08

Read :

G.O.Ms.No.62, Energy (A-2) Department Dated 28.8.2007.

Read also :

From the Chairman, T.N.E.B., D.O. Li.No.CE/CD/SE/PD/EE/C-1/
AEE3/UPRI/F.KUPSHEP/D.328, Dated : 28.6.2008.

ORDER:

In the G.O. read above orders have been issued according in Principle approval for taking up the work of Kundah Pumped Storage Hydro Electric Project (500 MW) in the Nilgiris District of Tamil Nadu.

2. The Chairman, Tamil Nadu Electricity Board, in his letter read has requested the approval of the Government on the following:-

(i) to execute the Kundah pumped storage hydro-electric project in the Nilgiris District in two phases in order to launch the project on ground expeditiously to avoid time and cost over run and

(ii) to take up the Phase I (1x125 MW) execution initially at a project cost of Rs.488.48 Crores which includes all the common civil and hydro mechanical works for all the units, exclusive civil works for unit 1, facilitating civil works for the remaining 3 units and supply and erection of one unit of 125 MW turbo-generator and connected accessories along with EOT crane.

3. The Government after careful examination, accorded approval to execute the Kundah pumped storage hydro-electric project in the Nilgiris District in two phases in order to launch the project on ground expeditiously to avoid time and cost over run and to take up the Phase I (1x125 MW) execution initially at a project cost of Rs.488.48 Crores which includes all the common civil and hydro mechanical works for all the units, exclusive civil works for unit 1, facilitating civil

works for the remaining 3 units and supply and erection of one unit of 125 MW turbo-generator and associated accessories along with EOT crane.

(BY ORDER OF THE GOVERNOR)

SMITA NAGARAJ,
PRINCIPAL SECRETARY TO GOVERNMENT

To

The Chairman, Tamil Nadu Electricity Board, Chennai-2
The Principal Secretary to Government, Finance Department, Chennai-8
The Principal Secretary to Government, Environment and Forest Department, Chennai-8
The Principal Chief Conservator of Forest, 1, Jeenu Road, Panagal Building, Saldapet, Chennai-15.

Copy to:

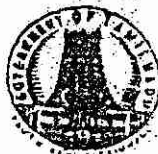
The Member (Generation), Tamil Nadu Electricity Board, Chennai -2.
The Secretary to Chief Minister, Office of the Chief Minister, Chennai-8.
The Senior P.A. to Hon'ble Minister (Electricity), Chennai-9.
The Senior P.A. to Hon'ble Minister (Finance), Chennai-8.
The Senior P.A. to Hon'ble Minister (P.W.D. & Law), Chennai-8.
The Senior P.A. to Hon'ble Minister (Forest), Chennai-8.
The Private Secretary to Chief Secretary, Chennai-8.
The Private Secretary to Principal Secretary to Government, Energy Department, Chennai-8.

SF/SC

// FORWARDED BY ORDER //

M. V. S. Rani
SECTION OFFICER

29 APR 2013



SE/CITP	107
CE/PROJECTS	

ABSTRACT

(27)

Energy - Tamil Nadu Generation and Distribution Corporation Limited - Kundah Pumped Storage Hydro - Electric Project in Nilgiris District - Taking up the execution of Phase II (2x125 MW) - Government's approval - Accorded

Energy (A2) Department

SE(NI) - 1	SE(NI) - 2
EE-3	APO/UNIT IV
SE/PD & C	

Dated: 29.04.2013
விஜயவருடம், சித்திரை 16
திருவள்ளூர் ஆண்டு 2044
Read:

- 1) G.O.Ms.No.62, Energy (A2) Department, dated 28.06.2000
- 2) G.O.Ms.No.133, Energy (A2) Department, dated 03.12.2008.

Read also:

- 3) From the Chairman and Managing Director, Tamil Nadu Generation and Distribution Corporation Limited Letter No.CE/ Projects/ SE/ PD&C/ SE/ N1-1/ AEE3/DPR/ F.KPSHEP/ D100, dated 08.06.2012, 18.12.2012 and 12.02.2013.

ORDER:

In the G.O. first read above orders according in principle approval have been issued for taking up the work of Kundah Pumped Storage Hydro Electric Project (500 MW) in the Nilgiris District of Tamil Nadu

2) In the G.O. second read above the Government have accorded approval to execute the Kundah Pumped Storage hydro-electric Project (4x125 MW) in Nilgiris District in phases and to take up the phase I (1x125 MW) execution initially at a project cost of Rs 488.48 crores.

3) The Chairman and Managing Director, Tamil Nadu Generation and Distribution Corporation Limited in the reference third read above has stated that due to the poor financial condition of the Board earlier, the project execution could not be taken up. Considering the present power situation in the State and also that

the Power Finance Corporation and Rural Electrification Corporation, New Delhi have agreed to lend finance for the new project, Tamil Nadu Generation and Distribution Corporation Limited Board has decided to revert to the earlier stand of taking up the project execution in Phases each phase within the powers of the State Government and to operate the Phase I execution as ordered in the G.O. second read above. The pre-development activities / residual studies for taking up the phase I execution are in progress.

4) The project cost of Phase II (2x125 MW) which includes exclusive civil works for unit 2 & 3 and supply, erection, testing & commissioning of 2nd & 3rd Units along with all the project enabling works has been worked out at the current price level and as detailed below.

Cost of Civil works	Rs.48.51 Crores
Cost of Electro-mechanical works	Rs.417.97 Crores
Interest during construction @ 11%	Rs.32.10 Crores
Total Project cost including IDC	Rs.498.58 Crores
Levelised Tariff	Rs 4.99 /KWhr
Project Break even period	7 years.

As per GOI Notification dated 18/04/2006, State Governments can give clearance to hydro-electric projects up to Rs.500 Crores.

5) The Chairman and Managing Director, Tamil Nadu Generation and Distribution Corporation Limited has requested the approval of the Government for taking up the execution of Phase II (2x125 MW) of the Kundah pumped storage Hydro electric project in Nilgiris District.

27 7 (H)
The Government after careful examination accord approval to execute the Phase II (2x125MW) of the Kundah Pumped Storage Hydro Electric Project in the Nilgiris District subject to conditions that Environmental Clearance and consent from the Tamil Nadu Pollution Control Board be obtained.

(BY ORDER OF THE GOVERNOR)

RAJESH LAKHONI
SECRETARY TO GOVERNMENT

To
The Chairman and Managing Director,
Tamil Nadu Generation and Distribution Corporation Limited, Chennai-2.
The Principal Secretary to Government,
Finance Department, Chennai-9
The Additional Chief Secretary,
Environment and Forest Department, Chennai-9.
The Secretary, PWD, Chennai-9.

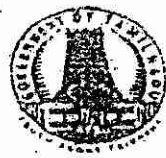
Copy to:

The Principal Chief Conservator of Forest,
1, Jeenias Road, Panagal Building,
Saidapet, Chennai-15.
The Chairman,
Tamil Nadu Pollution Control Board,
Guindy, Chennai-32.
The Director (Projects),
Tamil Nadu Generation and Distribution Corporation Limited, Chennai-2.
The Principal Secretary to Hon'ble Chief Minister,
O/o the Chief Minister, Chennai-9
The Special P.A to Hon'ble Minister (Electricity, Prohibition & Excise)
Chennai-9.
The Special P.A to Hon'ble Minister (Finance) Chennai-9
The Special P.A to Hon'ble Minister (Environment) Chennai-9
The Special P.A to Hon'ble Minister (Forest) Chennai-9.
The Special P.A to Hon'ble Minister (PWD), Chennai-9.

// FORWARDED/ BY ORDER //

30.05.2022
SECTION OFFICER

Dr. (P.T.O.)



Abstract

Energy – Tamil Nadu Generation and Distribution Corporation Limited – Kundah Pumped Storage Hydro – Electric Project in Nilgiris District – Taking up the execution of Phase III (1x125 MW) – Government's Approval Accorded.

SE(NI) 1	SE(I)
EE-3	APO/

Energy (A1) Department

G.O.Ms.No. 44

Dated: 20.06.2014 PD & C

திருவள்ளூர் ஆண்டு 2045 ஜூன், ஆண்டு 06

Read:

1. G.O.Ms.No.62, Energy (A2) Department, dated 28.06.2007.
2. G.O.Ms.No.133, Energy (A2) Department, dated 3.12.2008.
3. G.O.Ms.No.50, Energy (A1) Department, dated 29.4.2013.

Read also:

4. From the CMD, TANGEDCO Lr.No.CE/Projets/ SE/PD&C/ EE/C-1/AJ/DPR/F.KPSHEP/ D.225 dated 10.12.2013.

ORDER:-

In the G.O. first read above, orders according in principle approval have been issued for taking up the work of Kundah Pumped Storage Hydro Electric Project (500 MW) in Nilgiris District of Tamil Nadu

2. In the G.O. second read above, the Government have accorded approval to execute the Kundah Pumped Storage hydro-electric Project (4X125 MW) in Nilgiris District in phases and to take up the phase I (1X125 MW) execution initially at a project cost of Rs.488.48 Crores.

3. In the G.O. third read above, Government have accorded approval to execute the Phase II (2X125MW) of the Kundah Pumped Storage Hydro Electric Project in the Nilgiris District at a project cost of Rs.498.58 Crores subject to conditions that Environment Clearance and consent from the Tamil Nadu Pollution Control Board be obtained.

4. The Chairman and Managing Director, Tamil Nadu Generation and Distribution Corporation Limited in the letter fourth read above, has stated that Kundah pumped storage hydro-electric project (4X125MW) is proposed to meet demands of the State grid during peak period and to ensure quality & reliable power supply by flexible operation of State grid. The execution of this project is proposed to be taken up in three phases.

(P.T.O.)

5. The Phase I of this project includes all civil works viz., Head race tunnel, head race surge shaft, Adit to Head race surge shaft, 2 numbers pressure shafts, 4 numbers penstocks, Power house Cavern, transformer cavern, Tail race surge shaft, adit to tail race surge shaft, Access tunnel, Cable cum ventilation tunnel & tail race tunnel, Hydro Mechanical works for all the four units, Erection, Testing and Commissioning of turbo-generator of first 125 MW along with EOT crane. Further an underground power house will be constructed to house 4 units of 125 MW each.

6. The Phase II of this project includes Civil works such as pressure shaft, penstock lining & machine foundation pertaining to 2nd & 3rd unit and supply, erection, testing and commissioning of 2nd & 3rd units of 125 MW each along with all project enabling works.

7. The Phase III (1X125MW) includes civil works such as penstock lining & machine foundation pertaining to the 4th unit and supply, erection, testing & commissioning of 4th unit along with all the project enabling works.

8. The project cost of Phase-III (1X125 MW) has been worked out at the 2012-2013 price level and as detailed below:-

Cost of Civil Works	Rs.7.55 Crores
Cost of Electro-Mechanical works	Rs.208.86 Crores
Interest during construction @ 11%	Rs.13.12 Crores
Total Project cost including IDC	Rs.229.53 Crores
Levelling Tariff	Rs.7.46 / KWhr
Project Break even period	7 Years.

As per Government of India Notification dated 20.2.2014 State Governments can give clearance to hydro-electric projects upto Rs.1000 Crores.

9. The Chairman and Managing Director, Tamil Nadu Generation and Distribution Corporation Limited has requested the approval of Government, for taking up the Phase III (1X125 MW) execution of the Kundah pumped storage hydro-electric project in Nilgiris District.

10. The Government after careful examination, accord approval to execute the Phase III (1X125MW) of the Kundah Pumped Storage Hydro Electric Project in Nilgiris District at an estimated cost of Rs.229.53 Crores.

(P.T.O.)

(35)

(15)

// 3 //

11. This order issues with the concurrence of Finance Department vide its U.O.No.31652/DS(B)/2014, PW-II/2014, dated 17.6.2014.

(BY ORDER OF THE GOVERNOR)

RAJESH LAKHONI,
SECRETARY TO GOVERNMENT.

To
✓ The Chairman and Managing Director,
Tamil Nadu Generation and Distribution Corporation Ltd., Chennai-2.
The Principal Secretary to Government,
Finance Department, Chennai-9.
The Principal Secretary,
Environment and Forest Department, Chennai-9.
The Principal Secretary, Public Works Department, Chennai-9.
Copy to:-
The Principal Chief Conservator of Forest,
1, Jeenias Road, Panagal Building,
Saidapet, Chennai-15.
The Chairman,
Tamil Nadu Pollution Control Board,
Gulindy, Chennai-32.
The Director (Projects)
Tamil Nadu Generation and Distribution Corporation Limited, Chennai-2.
The Principal Secretary to Hon'ble Chief Minister,
O/o the Chief Minister, Chennai-9.
The Special P.A. to Hon'ble Minister (Electricity, P&E)
Chennai-9.
The Special P.A. to Hon'ble Minister (Finance & FWD) Chennai-9.
The Special P.A. to Hon'ble Minister (Environment), Chennai-9.
The Special P.A. to Hon'ble Minister (Forest), Chennai-9.
SF/SC.

//FORWARDED / BY ORDER//

San. Singh
20/6/2014
SECTION OFFICER.
(Signature)
20/6/14

Kundah Pumped Storage Hydro-electric Project (4x125 MW)/

Nilgiris District, Tamil Nadu

PROGRESS & PRESENT STATUS OF THE PROJECT:

- Main Access Tunnel (MAT) for a length of 1000m has been completed.
- Cable Cum Ventilation Tunnel (CCVT) with concrete lining for a length of 500m including portal has been completed.
- Formation of approach roads to Head race Tunnel Intake, Adit of Head Race Tunnel Surge Shaft, Upper reservoir (Porthimund) and Dumping yard have been completed including strengthening of existing roads.
- Power supply arrangements to Adit of Head race Tunnel and other construction locations have been made.
- Works completed to a value of Rs. 128.57 Crore so far.
- M/s WAPCOS, the Consultant prepared the tender Specification for EPCC Packages and the tender analysis carried out for Packages I & II (Civil & Hydro-Mechanical works).
- Civil & Hydro-Mechanical Packages I & II to a total value of Rs.600 Crore are to be awarded by Nov'17.
- Tenders for EPC Package – III (E&M works for Unit -1) to a value of Rs. 312 Crore and EPC Package –IV (Phase-II) (E &M works for Unit 2 & Unit 3) to a value of Rs. 444 Crore have been floated during Sep'17 & Oct'17.
- Tender for EPC Package –V (Phase –III) (E&M works for Unit -4) to a value of Rs. 196 Crore is uploaded on 23.10.17.
- Tender opening for all the above E&M Packages is proposed during Dec'17 and it is proposed to award E &M Packages by 06/2018.