

प्रारूप - 5

Encl - 6

संख्या: 760 / 1 / 2004-05 / 61 / 03

प्रेषक,

डी०पी०पाण्डे,
सचिव,
उत्तरांचल शासन ।

सेवा में,

अध्यक्ष एवं प्रबन्ध निदेशक,
उत्तरांचल जल विद्युत निगम लि०,
देहरादून ।

ऊर्जा विभाग

विषय:

महोदय,

देहरादून: दिनांक: 9, दिसम्बर, 2004

जल विद्युत परियोजनाओं का DPR तैयारी/क्रियान्वयन हेतु आवंटन ।

उक्त विषय के सम्बन्ध में मुझे यह सूचित करने का निदेश हुआ है कि राज्य सरकार द्वारा उत्तरांचल जल विद्युत निगम को क्रियान्वयन हेतु पूर्व में आवंटित जल विद्युत परियोजनाओं क्रमशः पालामनेरी (416 मे०वॉ०), बावला नन्दप्रयाग (132 मे०वॉ०), आराकोट त्यूनी (70 मे०वॉ०) एवं त्यूनी पलासू (42 मे०वॉ०) के अतिरिक्त निम्नांकित परियोजनायें भी डी०पी०आर० तैयार करने हेतु आवंटित की जाती हैं:-

(1)	तमक लता	280 मे०वॉ०	धौलीगंगा	घमोली
(2)	नन्दप्रयाग लंगरासू	141 मे०वॉ०	अलकनन्दा	घमोली
(3)	ऋषिगंगा-1	70 मे०वॉ०	ऋषिगंगा	घमोली
(4)	ऋषिगंगा	35 मे०वॉ०	ऋषिगंगा	घमोली
(5)	सेला उर्थिंग	230 मे०वॉ०	धौलीगंगा (काली)	पिथौरागढ़
(6)	सरकारी भ्योल	210 मे०वॉ०	गौरीगंगा	पिथौरागढ़
	कपसियाबगढ़			
(7)	भैरोघाटी	400 मे०वॉ०	भागीरथी	उत्तरकाशी
	(I,II, हरसिल व गंगोत्री सम्मिलित)			
(8)	तालुका सांकरी	140 मे०वॉ०	टॉस	उत्तरकाशी

2175 मेगावाट

मुझे यह भी कहने का निदेश हुआ है कि उक्त परियोजनाओं की DPR बनाने हेतु भारत सरकार से वित्तीय सहायता प्राप्त करने की व्यवस्था की जाए एवं परियोजनाओं की DPR हेतु समयबद्ध कार्यक्रम बनाकर शीघ्र कार्यवाही प्रारम्भ की जाए ।

भवदीय

R. Pandey
(डी०पी०पाण्डे)
सचिव
9/12/2004

प्रारूप - 5.1

Encl. C

संख्या: 4334/1/2004-05/51/03

प्रेषक,

एन०रवि शंकर,
सचिव,
उत्तरांचल शासन ।

सेवा में,

अध्यक्ष एवं प्रबन्ध निदेशक,
उत्तरांचल जल विद्युत निगम लि०,
देहरादून ।

ऊर्जा विभाग

देहरादून: दिनांक: ६ अक्टूबर, 2005

विषय:

जल विद्युत परियोजनाओं का DPR तैयारी/क्रियान्वयन हेतु आवंटन।

महोदय,

उक्त विषयक शासन के पूर्व पत्र संख्या: 760/1/2004-05 /51

/ 03, दिनांक: 9-12-04 एवं 768/1/2004-05/51/03, दिनांक: 10-12-05

क्रम में मुझे आपको यह सूचित करने का निदेश हुआ है उक्त वर्णित पत्रों के माध्यम से उत्तरांचल जल विद्युत निगम को डी०पी०आर० तैयार करने हेतु आवंटित की गई परियोजनाओं के सम्बन्ध में शासन द्वारा लिए गए निर्णय के क्रम में पत्र में वर्णित निम्नांकित समस्त परियोजनाएँ उत्तरांचल जल विद्युत निगम के डी०पी०आर० तैयार करने के साथ-साथ विकास हेतु भी आवंटित की जाती है:-

क्र०सं०	परियोजना	क्षमता	नदी	जनपद
(1)	तमक लता	280 मे०वॉ०	धौलीगंगा	चमोली
(2)	नन्दप्रयाग लंगरासू	141 मे०वॉ०	अलकनन्दा	चमोली
(3)	ऋषिगंगा-1	70 मे०वॉ०	ऋषिगंगा	चमोली
(4)	ऋषिगंगा	35 मे०वॉ०	ऋषिगंगा	चमोली
(5)	सेला उर्थिंग	230 मे०वॉ०	धौलीगंगा (काली)	पिथौरागढ़
(6)	सरकारी भ्योल रूपसियाबागड़	210 मे०वॉ०	गौरीगंगा	पिथौरागढ़
(7)	भैरोघाटी (I,II, हरसिल व गंगोत्री सम्मिलित)	400 मे०वॉ०	भागीरथी	उत्तरकाशी
(8)	तालुका सांकरी	140 मे०वॉ०	टौस	उत्तरकाशी

1508 मेगावाट

No / GMDP/UTVNC/C-7

CC to following.

D. G. M (LRP) - I / LRP-II for information

necessary action

भूतदीय
N. Ravi Sh

(एन०रवि शंकर)

Sd/- 8/10/05

Sd/-

आरूप- 5.2

48-1398/

संख्या : 1/2014-04(08)/44/2005

प्रेषक,

श्री० उमाकान्त पंवार,
सचिव,
उत्तराखण्ड शासन।

सेवा में,

निदेशक (पी०ए०सी०),
केन्द्रीय विद्युत प्राधिकरण,
सेवा भवन, रामा कृष्ण पुरम्,
नई दिल्ली-110086

ऊर्जा अनुभाग-01

देहरादून : दिनांक 10 डिसेम्बर, 2014

विषय :- Confirmation of Levels related to Sirkari Bhyol Rupsiyabagar HEP with modified capacity of 168 MW.

महोदय,

आपके दिनांक 25 मार्च, 2014 का सन्दर्भ ग्रहण करने का कष्ट करें जिसमें आपने द्वारा जनपद पिथौरागढ़ में स्थित सिरकारी भ्योल रुपसियाबाग जल विद्युत परियोजना (क्षमता 168 मेगावॉट) की techno Economic Clearance हेतु राज्य सरकार का अभिप्रेत वांछा गया है।

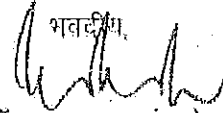
उक्त के आलोक में अवगत कराना है कि वर्ष 2013 में प्रदेश में आयी दैवीय आपदा के दृष्टिगत उक्त परियोजना स्थल का परिदृश्य परिवर्तित होने के कारण यूजेवीएन लि० द्वारा निम्नलिखित तालिका के अनुरूप उक्त प्रस्तावित परियोजना में परिवर्तन किया है जिसके फलस्वरूप परियोजना की क्षमता 210 मेगावॉट से घटाकर 168 मेगावॉट कर दी गयी है, जिसका विवरण निम्नवत् है :-

Name of Project	FRL/TWL (m)	Remarks
3. Sirkari Bhyol HEP (148 MW)	2330.00/2123.00	GVR
4. Sirkari Bhyol HEP (168 MW)	2084.00/1720.00	UJVNL Project
Rupsiyabagar Khasiabara (261 MW)	1720.00/1255.00	Forest Clearance has been denied by FAC, MoEF.

इस सम्बन्ध में राज्य सरकार द्वारा राज्य में आपदा ग्रस्त परियोजनाओं पर विशेष छूट दिये जाने का निर्णय लिया है।

O/c

अतः सवत परिप्रेक्ष्य में मुझे आपसे यह अनुरोध करने का निर्देश हुआ है कि सक्त तथ्यों के दृष्टिगत जमपद पिथौरागढ़ में स्थित सरकारी भोल रूपसिआवगड जल विद्युत परियोजना (क्षमता 165 मेगावॉट) की Techno Economic Clearance हेतु कार्यवाही करने का कष्ट करें।

भवदीय

(डॉ० उमाकान्त पवार)
सचिव



भारत सरकार

Government of India

विद्युत मंत्रालय

Ministry of Power

केन्द्रीय विद्युत प्राधिकरण

Central Electricity Authority

जल विद्युत परियोजना मूल्यांकन-I प्रभाग

Hydro Project Appraisal-I Division

विषय: Sirkari-Bhyol Rupsiyabagar H.E. Project in Uttarakhand by UJVN Ltd. - Examination of Power Potential Studies.

Reference is invited to UJVNL letter No. 576/UJVNL/03/Dir(Pro)/GM(Civ)/BSR dated 27.04.2017 submitting therewith a chapter on power potential studies of the said project for examination. Subsequently, revised PPS chapter was submitted by the developer vide letter dated 16.06.2017.

As per the said PPS Chapter, Sirkari-Bhyol Rupsiyabagar H.E. Project is proposed as a run of-river scheme with very low storage of 0.0409 Mcum on Goriganga river. Installed capacity of 134 MW was proposed based on 10-daily water availability series approved and communicated to the developer by CWC vide letter dated 10.03.2017. Operating levels (FRL & TWL) have been approved by govt. of Uttarakhand vide letter dated 03.12.2014. ToR for preparation of EIA/EMP were accorded clearance by MoEF&CC vide their letter dated 20.01.2016 along with downstream environmental flow releases.

Following parameters have been considered in the examination of power potential studies of this project:

i)	10-daily water flow series	: 1977-78 to 2014-15
ii)	Hydrological year	: June to May
iii)	90% dependable year	: 1987-88
iv)	D/s environmental flow Releases	
	- Monsoon period	: 30% of June to September average inflows
	- Lean period	: 20% of Nov. to Feb. average inflows
	- Non-monsoon non-lean period	: 25% of Oct., March, April & May average inflows
v)	FRL	: 2080.0 m
vi)	MDDL	: 2078.0 m
vi)	TWL	: 1721.5 m
vii)	Live storage	: 0.0409 MCM
viii)	Head losses	: 9.2m (yet to be Approved by CWC)
ix)	Combined turbo-generator efficiency	: 92.09 % (yet to be Approved by HE&TD)

The power potential studies submitted by the developer have been examined in this office and it is observed that the Installed Capacity of 120 MW may be adopted for framing the DPR. The design energy of the said project is envisaged to be 529.12 MU. However, head losses in water conductor system are yet to be approved by HCD Dte. of CWC & HE&TD Div. of CEA and combined turbine-generator efficiency by HE&TD Div. of CEA.

Further, the installed capacity and design energy may be reviewed on account of following:

- i) Any change in operating levels (FRL, MDDL, TWL) etc.
- ii) Any change in water conductor system losses.
- iii) Any changes in downstream environmental flow releases.
- iv) Any change in efficiency of turbine and/or generator.
- v) Any other aspect, which is derived during detailed examination of the projects.

Design Energy calculations of Sirkari-Bhyol Rupsiyabagar H.E. Project is enclosed at Annex-I.

This issues with the approval of competent authority.

शिवाना ३५/३
२१.७.१७

(श्रवण कुमार)

निदेशक (एचपीए-१)

ईमेल: dirhpa3@gmail.com

Director (PAC), CEA

No.: 207/1/2014/HPA/ 846

Dated: 21.07.2017

Copy to: ✓ General Manager (Civil-New Projects), UJVN Ltd.
Ganga Bhawan, Yamuna Colony,
Dehradun (Uttarakhand) - 248001

FRL (m)	2080	Unrestricted Annual Energy Generation	553.73	MU
MDDL (m)	2078			
TWL (max)	1721.5	Installed Capacity	120	MW
Head Loss (m)	9.2	Design Flow	38.10	Cumec
Net Head (m)	348.6	Riparian Flows (e-flows)	Jun-Sept 14.13	Cumec
Overall Efficiency	0.9209		Nov-Feb 1.87	Cumec
Live Stogare (Mcum):	0.0409		Rest of year 6.42	Cumec
Annual Load Factor %	51.13	Lean Period Load Factor	19.83	%

Month	Days	Total Inflow (cumec)	Inflows after e-flows releases (cumec)	Flow used for Power Generation (cumec)	Total Energy Generation with 100% m/c (MU)	Total Energy Generation with 95% m/c (MU)
JUNE	10	50.50	36.37	36.37	27.49	27.36
	10	51.50	37.37	37.37	28.25	27.36
	10	51.90	37.77	37.77	28.55	27.36
JULY	10	41.70	27.57	27.57	20.84	20.84
	10	43.20	29.07	29.07	21.98	21.98
	11	58.80	44.67	38.10	31.68	30.10
AUGUST	10	48.80	34.67	34.67	26.21	26.21
	10	49.90	35.77	35.77	27.04	27.04
	11	56.80	42.67	38.10	31.68	30.10
SEPTEMBER	10	46.30	32.17	32.17	24.32	24.32
	10	37.00	22.87	22.87	17.29	17.29
	10	28.70	14.57	14.57	11.02	11.02
OCTOBER	10	18.70	12.28	12.28	9.28	9.28
	10	15.60	9.18	9.18	6.94	6.94
	11	14.70	8.28	8.28	6.89	6.89
NOVEMBER	10	11.10	9.23	9.23	6.97	6.97
	10	9.60	7.73	7.73	5.84	5.84
	10	9.60	7.73	7.73	5.84	5.84
DECEMBER	10	8.70	6.83	6.83	5.16	5.16
	10	8.20	6.33	6.33	4.78	4.78
	11	8.80	6.93	6.93	5.76	5.76
JANUARY	10	10.00	8.13	8.13	6.14	6.14
	10	9.30	7.43	7.43	5.61	5.61
	11	9.30	7.43	7.43	6.18	6.18
FEBRUARY	10	9.50	7.63	7.63	5.76	5.76
	10	9.70	7.83	7.83	5.92	5.92
	9	8.60	6.73	6.73	4.68	4.68
MARCH	10	10.60	4.18	4.18	3.16	3.16
	10	17.00	10.58	10.58	8.00	8.00
	11	17.60	11.08	11.08	9.22	9.22
APRIL	10	21.00	14.58	14.58	11.02	11.02
	10	27.50	21.08	21.08	15.94	15.94
	10	30.70	24.28	24.28	18.36	18.36
MAY	10	37.30	30.88	30.88	23.34	23.34
	10	44.80	38.38	38.10	28.80	27.36
	11	52.60	46.18	38.10	31.68	30.10
Total					537.52	529.12

पत्र- 5.4

No. J-12011/12/2015-IA.I (R)
Government of India
Ministry of Environment, Forest & Climate Change
(IA.I Division)

Indira Paryavaran Bhawan
3rd Floor, Vayu Wing
Jor Bagh Road
New Delhi-110 003

To

Dated: 13th October, 2020

The General Manager (CDH& New Projects)
M/s. UJVN Limited,
Ganga Bhawan, Yamuna Colony
Dehradun- 248001
Uttarakhand

Sub: Sirkari Bhyol Rupsiabagar HEP (120 MW) in Pithoragarh District of
Uttarakhand by M/s UJVN LTD- regarding Amendment of ToR.

Sir,

This has reference to your online proposal no. A/UK/RIV/148821/2020 letter No. 41/UJVNL/03/Dir(P)/GM(CDH&NP)/P-8 dated 16.03.2020 submitted to the Ministry for Amendment of ToR to the project on the above-mentioned subject.

2. The above referred proposal was considered by the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric projects in its 1st meeting held on 29.07.2020. The comments and observations of EAC on the project may be seen in the Minutes of the meeting which are available on the web-site of this Ministry.
3. Ministry vide letter no. J-12011/12/2015-IA-1, dated 20.01.2016 accorded "Terms of Reference" (TOR) for preparation of EIA/EMP report for the project with installed capacity 168MW (4x42 MW). Further, Ministry vide letter no. J-12011/12/2015-IA-I(R), dated 17.4.2020, granted extension of validity of ToR up to 19.1.2021.
4. Project Proponent (M/s UJVN Ltd) informed to this Ministry that that due to mandatory requirement of release of environmental flow, downstream of barrage, installed capacity of the project by the Central Electricity Authority has been reduced from 168 MW (4x42MW) to 120MW (3x40MW) and consequent design energy from 662.08 MU to 529.12MU. Therefore, application seeking amendment in ToR for reduced installed capacity 120MW (3X40MW) was submitted to this Ministry.
5. Your request for change in project parameters was examined by the Expert Appraisal Committee (EAC) for River Valley & Hydroelectric Projects in its meeting held on 29.07.2020. The EAC duly considered the relevant documents submitted by you and have recommended for grant of amendment of ToR for the revised parameters alongwith the additional ToRs. Based on the recommendation of the EAC, this Ministry hereby accords amendment of ToR

dated 20.01.2016 in respect of Sirkari Bhyol Rupsiabagar HEP (120 MW) in Pithoragarh District of Uttarakhand with following revised proposal and additional ToRs:

S.N.	Details	Original	Revised Proposal
1	Barrage		
(i)	Height/Length	12 m (H) /118.3 m	12m (H) /80 m (L)
(ii)	Spillway Design Discharge	2742 cumec	2501 cumec
2	Reservoir		
(i)	FRL/MDDL	2084.9 masl/2082	2080 masl/2078 masl
(ii)	Live Storage	0.05 MCM	0.0409 MCM
3	Intake		
(i)	Number of intakes	4	2
(ii)	Design discharge Intake	66 cumec	43.60 cumec
4	Feeder Tunnel		
(i)	Number/length/Diameter	2 No /200 m/3.4	2 No /80 m/3.0 m
5	Desilting Chambers	2 No./180 m x13.0 m x16.0 m	2 No./165 m x10.0 m x12.0 m
6	HRT		
(i)	Design Discharge	52.90 cumec	37.90 cumec
(ii)	Length	1200 m	1316.3 m
7	Surge Shaft		
(i)	Type	Restricted orifice	Restricted orifice
(ii)	Diameter / height	10.0 m/34.5 m	8.0 m/38.5 m
(iii)	Diameter of Orifice	2.80 m	2.30 m
	Pressure shaft/Penstock		
	Main Pressure shaft Length up to bifurcation Dia. of branch penstock /discharge	1 of 3.6m diameter 570.00 m 1.75 m /13.23 cumec	1 of 3.4m diameter 1 of 3.4m diameter 2.0 m /12.63 cumec
8	Underground Powerhouse Size of the Power House	4 x 42 MW 100.0 x 18 m x 41.0m	3 x 40 MW 87.0 x 17.5 m x 37.0m
9.	Tail Race		
	Size and length	5.0m dia, 140 m long	4.2m dia, 167m long
10	Cost of Project	Rs 1233.79 crore	Rs. 879.43 crore

Additional ToRs

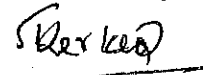
i. Status of Forest Clearance shall be submitted to the Ministry at the earliest.

52 ii. Pre-DPR Chapters viz., Hydrology and Layout Map and Power Potential Studies duly approved by CWC/CEA shall be submitted.

- iii. Detailed CAT plan shall be prepared to arrest the soil erosion, floods and siltation of the river and its tributaries and consequent reduction of siltation in the reservoir of the project, Mitigation of landslide landslip and rock falls etc.
- iv. Impact of developmental activity/project on the wildlife habitat, if any, within 10 km of the project boundary shall be studied
- v. Consolidated EIA/EMP report is to be submitted as per the generic structure (Appendix III & IIIA) given in the EIA Notification, 2006.
- vi. Environmental Cost benefit analysis shall be done.
- vii. Conservation plan for the Scheduled I species, if any, in the project study area shall be prepared and submitted to the Competent Authority for approval.
- viii. Environmental matrix during construction and operational phase needs to be submitted.
- ix. An undertaking as part of the EIA report from Project proponent, owning the contents (information and data) of the EIA report with the declaration about the contents of the EIA report pertaining to a project have not been copied from other EIA reports.
6. All other terms and conditions of the TOR clearance stipulated in letter No. J-12011/12/2015-IA-1, dated 20.01. 2016 shall remain unchanged.

This issues with approval of the Competent Authority.

Yours faithfully,



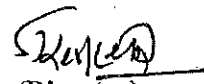
(Dr S. Kerketta)

Director

Copy to.

1. The Secretary, Ministry of Power, Sharm Shakti Bhawan, Rafi Marg, New Delhi-110001
2. The Secretary, Ministry of Water Resources, RD & GR, Shram Shakti, Bhawan, Rafi Marg, New Delhi - 110 001.
3. The Principal Secretary (Irrigation & Power), Government of Uttarakhand, Dehradun-248 006.
4. The Chief Engineer, Project Appraisal Directorate, Central Water Commission, Sewa Bhawan, R.K. Puram, New Delhi-110 066.
5. The Dy. Director General of Forests, Ministry of Environment, Forest and Climate Change, Regional Office (NCZ), Subhash Road, Dehradun- 248 001.

6. The Member Secretary, Uttarakhand Environment Protection & Pollution Control Board, Paryavaran Bhawan, E-115, Nehru Colony, Dehradun.
7. NIC Cell - uploading in MoEFCC's website.
8. Sr. PPS to JS (GM)
9. Guard file.


(Director)