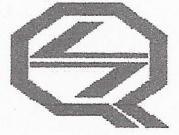




भारत सरकार  
Government of India  
केन्द्रीय विद्युत प्राधिकरण  
Central Electricity Authority  
नवीकरणीय ऊर्जा उद्भव विकास प्रभाग  
R E S Development Division  
दूसरी मंजिल, सेवा भवन, आर.के.पुरम, नई दिल्ली-110066  
2<sup>nd</sup> Floor, Sewa Bhawan, R.K. Puram, New Delhi – 110066  
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(ISO: 9001-2008)

No. CEA/Plg/RES-30/2017

Dated: 01-05-2017

Meeting Notice

विषय: नवीकरणीय ऊर्जा स्रोतों (आर. ई. एस.) के ग्रिड में एकीकरण की सुविधा के लिए विभिन्न प्रकार संतुलनकारी ऊर्जा स्रोत / ऊर्जा भंडारण उपकरणों के अनुकूलतम स्थापन के अध्ययन के लिए के. वि. प्रा. द्वारा गठित तकनीकी समिति की द्वितीय बैठक - चैन्नई में.

Subject: Second Meeting of the Technical Committee constituted by CEA for study of optimal location of various types of balancing energy sources/energy storage devices to facilitate grid integration of Renewable Energy Sources (RES) and associated issues to be held in Chennai on 09-05-2017. – reg.

महोदय/Sir,

CEA had vide Order No. CEA/Plg/RES-30/2017 dated 30<sup>th</sup> January, 2017 (Copy enclosed for ready reference) constituted a Technical Committee under the chairmanship of Member (Planning), CEA, for study of optimal location of the various types of balancing energy sources /energy storage devices to facilitate grid integration of Renewable Energy Sources (RES) and associated issues. The First meeting of the Committee was held on 23<sup>rd</sup> February, 2017 at CEA, New Delhi, followed by a meeting of the Sub-group for the Southern Region on 24<sup>th</sup> March, 2017 at SRPC, Bengaluru.

The Second Meeting of the Technical Committee, specifically concerning the States of Southern Region will be held on 9<sup>th</sup> May, 2017 (Tuesday) at 10.30 A.M. at TNEB Head Quarters, Howard Hall, First Floor, Chennai (address 800 Annasalai, Chennai – 260002).

The Proposed Agenda Items are as under:

- (i) The constituents of Southern Region to the Committee may make a presentation on adverse effects of variability of Wind and Solar generation and how they tackle the same at present. They may also give an assessment of loss of generation and of revenue, because of backing down of cheaper sources of conventional generation and losses due to Deviation Settlement Mechanism, purely on account of variability of renewable generation. Month wise data for 2016-17 and details may be given to support the same.
- (ii) Whether any constraints on transmission or distribution (T&D) system have been faced ? If so, necessary augmentation of T&D infrastructure which needs to be undertaken - scope and financial estimates for the same, if any, may be given.
- (iii) To propose utilization of State's own balancing plants.

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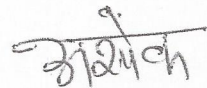
- (iv) An assessment of the quantum of electric storage system for balancing, which could be placed near the RE generation sources.
- (v) Details of issues in the Grid Integration of Renewables in Southern Region and the possible solutions, including the suggestions of the Sub-group, as mentioned during its First meeting.
- (vi) Status of communication system for RE generators to SLDCs and data received through the same.
- (vii) Any other item with the permission of the Chair.

It is requested that the nominated members of the Committee may please make it convenient to attend the above meeting. It is further requested that the concerned States from the Southern Region may list out the issues for deliberation in the said Meeting and e-mail the same to the Nodal Officer mentioned below, with a copy to undersigned so that the same can be circulated before the meeting for a comprehensive discussion.

The Nodal officer for the above meeting is Shri P. RAJAGUNANIDHI, Executive Engineer/Grid/TANTRANSO Phone No. 04428586433, Mob No. 9445857186, email [cegrid@tnebnet.org](mailto:cegrid@tnebnet.org), [rajagunanidhi@yahoo.co.in](mailto:rajagunanidhi@yahoo.co.in). The participants may coordinate with him for attending the meeting, with a copy to the undersigned.

Kindly confirm your participation. कृपया मीटिंग में भागीदारी सुनिश्चित करें.

भवदीय/ Yours faithfully



(A. K. Rajput)

Chief Engineer(RES Dev.)

Convener and Member Secretary

Email: [ceaopmwind@gmail.com](mailto:ceaopmwind@gmail.com)

Phone : 011-26714324 /26732257 (M) - 9868202176

**To: As per list – Members of the Technical Committee.**

**Copy for kind information to:**

- 1) PPS to Secretary (Power), New Delhi
- 2) PPS to Secretary (MNRE), New Delhi
- 3) Secretary, Central Electricity Regulatory Commission (CERC), Chanderlok Bldg., 3<sup>rd</sup> & 4<sup>th</sup> Floors, West Wing, 36, Janpath, New Delhi – 110 001 (Phone: 011-23753915), Fax No.011-23753923 – with a request to nominate a member from CERC for co-option in the Committee.
- 4) SA to Chairperson, CEA
- 5) PPS to Member (Planning), CEA

Central Electricity Authority  
केन्द्रीयविद्युत्प्राधिकरण  
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No. CEA/Pig/RES-30/2017

Dated:30<sup>th</sup> January, 2017

OFFICE ORDER

Subject: Constitution of a Technical Committee for study of optimal location of the various types of balancing energy sources /energy storage devices to facilitate grid integration of Renewable Energy Sources and associated issues – reg.

Pursuant to the deliberations held in the Ministry of Power (MoP), it has been decided that Central Electricity Authority (CEA) would undertake a Study for identifying optimal locations for balancing energy sources /energy storage in the country, to facilitate grid integration of renewables, keeping in view the impact of variability of renewable generation on system operation and the ongoing plan for massive capacity addition of renewables.

2. Accordingly, the Central Electricity Authority (CEA) hereby constitutes a Technical Committee with the following composition:

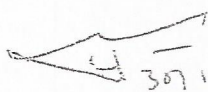
(i)	Member(Planning), CEA	-	Chairman of the Committee
(ii)	Representative from MNRE	-	Member
(iii)	Representative from Power Grid	-	Member
(iv)	Representative from POSOCO	-	Member
(v)	Representative from NTPC	-	Member
(vi)	Representative from NHPC	-	Member
(vii)	Representative from SECI	-	Member
(viii)	Representative from Tamil Nadu	-	Member
(ix)	Representative from Gujarat	-	Member
(x)	Representative from Rajasthan	-	Member
(xi)	Representative from Karnataka	-	Member
(xii)	Representative from Maharashtra	-	Member
(xiii)	Representative from Telangana	-	Member
(xiv)	Representative from Andhra Pradesh	-	Member
(xv)	Representative from Madhya Pradesh	-	Member
(xvi)	Chief Engineer (IRP), CEA	-	Member
(xvii)	Chief Engineer (PSP&A-I), CEA	-	Member
(xviii)	Chief Engineer (PSP&A-II), CEA	-	Member
(xix)	Chief Engineer (HE&TD), CEA	-	Member
(xx)	Chief Engineer (TE&TD), CEA	-	Member
(xxi)	Chief Engineer (GM), CEA	-	Member
(xxii)	Chief Engineer (FM), CEA	-	Member
(xxiii)	Chief Engineer (F&CA), CEA	-	Member
(xxiv)	Chief Engineer (RES Dev.), CEA	-	Convener & Member Secretary



3. The Terms of Reference of the Technical Committee will be as under :

- i) To identify optimal locations with respect to pooling stations for balancing energy sources /energy storage in the country for facilitating grid integration of Renewable Sources, considering cost benefit analysis;
- ii) To consider the availability of storage/pondage hydro power stations including pumped storage generating stations and existing gas based power plants of neighbouring areas/countries as balancing resource; and,
- iii) Any other issues incidental thereto.

4. The Committee may co-opt any other member, as deemed fit. The Committee shall submit its Report within six(6) months of the receipt of nominations of Members from the respective organizations.

  
3071117  
(P.D. Siwal)  
Secretary, CEA

To:

1.	Member(Planning), CEA	Chairman of the Committee with the request for nomination of Member of the Committee at a senior level dealing with the subject, within a week.
2.	Secretary, MNRE	
3.	Chairman & Managing Director , NTPC	
4.	Chairman & Managing Director , NHPC	
5.	Chief Operating Officer, CTU (PGCIL)	
6.	CEO, POSOCO	
7.	Managing Director, SECI	
8.	Principal Secretary (Energy), Tamil Nadu	with the request for nomination of Member of the Committee at a senior level from the concerned SLDC and/or the Renewable Energy Development Agency dealing with the subject, within a week.
9.	Principal Secretary (Energy), Gujarat	
10.	Principal Secretary (Energy), Rajasthan	
11.	Principal Secretary (Energy), Karnataka	
12.	Principal Secretary (Energy), Maharashtra	
13.	Principal Secretary (Energy), Telangana	
14.	Principal Secretary (Energy), Andhra Pradesh	
15.	Principal Secretary (Energy), Madhya Pradesh	
16.	All concerned Chief Engineers of CEA	

Copy for information to :

1. PPS to Secretary(Power)
2. PPS to Chairperson, CEA
3. PPS to Members of CEA

P.D.

11/11-2011

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Nominations of Members for the Technical Committee (Nominated Members/invitees) constituted by CEA under Member(Planning), CEA vide Order dated 30th January, 2017 for study of optimal location of the various types of balancing energy sources /energy storage devices to facilitate grid integration of Renewable Energy Sources and associated issues

Sl. No.	State/Utility	Name of the Nominated Officer	Designation, Address & Contact details	Mobile No.
1.	Karnataka	Sh. Hanumantharayappa	Chief Engineer, Elecyc, (Planning & Co-ordination ),Karnataka Power Transmission Corporation Ltd. (KPTCL), Room No.209, 2 <sup>nd</sup> Floor, Kaveri Bhavan, Bengaluru-560009. <b>Email: <a href="mailto:ccepnc@gmail.com">ccepnc@gmail.com</a>,</b> Fax.No.080-22292204. Ph.: 080-22210416	9448363092
2.	Telangana	Sh. P. Suresh Babu	Chief Engineer, SLDC & Telecom, Room No:611, A Block , TSTRANSCO, Vidyut Soudha, Khairatabad, Hyderabad- 500 082. <b>Email : <a href="mailto:cesldctelangana@gmail.com">cesldctelangana@gmail.com</a>,</b> Ph. : 040-23317645	9440679432
3.	Gujarat	Sh. B.B. Mehta	Chief Engineer ,State Load Despatch Centre, Gujarat Energy Transmission Corporation Limited, 132 kV Gotri Sub Station Compound, Near T.B. Hospital, Gotri Road, Vadodara – 390 021 <b>Email : <a href="mailto:celd@gebmail.com">celd@gebmail.com</a>,</b> Tel.No.0265-2353171	9879200736
4.	Andhra Pradesh	Sh. A K V Bhaskar.	SE, State Load Dispatch Centre, A. P. TRANSCO, Hyderabad <b>Email: <a href="mailto:akvbhaskar@gmail.com">akvbhaskar@gmail.com</a>,</b> Ph:040-66175195 Fax: 040-66175194	9490153116
5.	Madhya Pradesh	Sh. P.A. R. Bende	CHIEF ENGINEER (LD) STATE LOAD DESPATCH CENTRE, OFFICE OF MPPTCL, NAYAGAON, RAMPUR, JABALPUR – 482 008 (M.P.) (0761)2970089 Fax: (0761) 2664343/2970119 <a href="mailto:sldcmpjbp@gmail.com">sldcmpjbp@gmail.com</a> , <a href="mailto:parbende@gmail.com">parbende@gmail.com</a> ,	9425805264
6.	Rajasthan	Sh. A.K. Sharma	Addl. Chief Engineer (LD), Rajasthan Rajya Vidyut Prasaran Nigam Ltd., Heerapura GSS, Ajmer Road, Jaipur <b>Email: <a href="mailto:c.ld@rvpn.co.in">c.ld@rvpn.co.in</a>,</b> <a href="mailto:aks40aks@gmail.com">aks40aks@gmail.com</a> , Tel. No. 0141-2251601	9414061519
7.	Maharashtra	Dr. S.S. Kulkarni	Chief Engineer (SLDC), Maharashtra State Electricity Transmission Co. Ltd., Mumbai <b>Email: <a href="mailto:cesldc@mahasldc.in">cesldc@mahasldc.in</a>,</b> Tel. No. 022-27601931	9819363329
8.	Tamil Nadu	Er. A. Axilium Jayamary,	Director /Operation, TANTRANSCO <a href="mailto:directoropn@tnebnnet.org">directoropn@tnebnnet.org</a> ,	044-28521088
		Sh. P.R. Muralidharan	Superintending Engineer, Renewable Energy Management Centre, SLDC, Chennai-260002 <b>Email: <a href="mailto:seremc@tnebnnet.org">seremc@tnebnnet.org</a>,</b>	9445377059



		Sh. P. Rajagunanidhi	P.RAJAGUNANIDHI,, Executive Engineer, Grid, SLDC, TANTRANSCO,CHENNAI. <a href="mailto:eegrid@tnebnet.org">eegrid@tnebnet.org</a> , <a href="mailto:rajagunanidhi@yahoo.co.in">rajagunanidhi@yahoo.co.in</a> , Chennai-260002	9445857186, 04428586433
		Ms. S. Gomathi	Executive Engineer, Renewable Energy Management Centre, SLDC, Chennai <b>Email: <a href="mailto:aeceremc@tnebnet.org">aeceremc@tnebnet.org</a>,</b>	9444203708
9.	NHPC	Sh. Manoj Kumar	General Manager (BD&JV), NHPC Ltd., NHPC Office Complex, Sector-33, Faridabad-121003. <b>Email : <a href="mailto:mkumar@nhpc.nic.in">mkumar@nhpc.nic.in</a>,</b> Ph. : 0129-2278430	7579455850
10.	SECI	Sh. Atulya Kumar Naik	AGM(Power Systems) <b>Email: <a href="mailto:aknaik@seci.co.in">aknaik@seci.co.in</a>,</b> Fax No.011-71989235 Ph.No. 011-71989214	9717954896
11.	MNRE	Dr P C Maithani, Adviser & Sh. J.K. Jethani, Scientist-D	Ministry of New and Renewable Energy, 14 <sup>th</sup> Block, CGO Complex, Lodhi Road, New Delhi-110001 <b>Email: <a href="mailto:pcmaithani@nic.in">pcmaithani@nic.in</a>,</b> <b>Email: <a href="mailto:jethani.jk@nic.in">jethani.jk@nic.in</a>,</b> Tel./Fax. 011-24368911	9891184867
12.	Power Grid/CTU	Dr. Subir Sen,	COO (CTU-Plg & SG) <b>Email : <a href="mailto:subir@powergridindia.com">subir@powergridindia.com</a>,</b>	
13.	POSO	Sh. G Chakraborty	DGM, National Load Despatch Centre (NLDC), B-9, Qutab Institutional Area, Katwaria Sarai, New Delhi-110016 <b>Email: <a href="mailto:gchakraborty@posoco.in">gchakraborty@posoco.in</a>,</b> <b>&amp; <a href="mailto:c.goutam62@gmail.com">c.goutam62@gmail.com</a>,</b>	9433041815
14.	NTPC	Sh. S.S. Mishra	AGM (PE-Solar), NTPC Limited, EOC, Sector-24, Noida <b>E-mail : <a href="mailto:ssmishra@ntpc.co.in">ssmishra@ntpc.co.in</a>,</b>	9650991145
		Sh. A.K. Sinha	AGM (OS-SIIS), NTPC Limited, Core-7, Scope Complex, Lodhi Road, New Delhi <b>Email : <a href="mailto:anjansinha01@ntpc.co.in">anjansinha01@ntpc.co.in</a>,</b>	9650992971

All concerned Chief Engineers of CEA, {IRP, SP&PA – I & II, HETD, TETD, GM, FM, F&CA}

**Co- opted Members from Regional Power Committees and CERC**

<p>Representative from CERC C/o Secretary, CERC Central Electricity Regulatory Commission (CERC), Chanderlok Bldg., 3<sup>rd</sup> &amp; 4<sup>th</sup> Floors, West Wing, 36, Janpath, New Delhi – 110 001 (Phone: 011-23753915) Fax No.011-23753923 <a href="mailto:secy@cercind.gov.in">secy@cercind.gov.in</a>, <a href="mailto:secyskj@gmail.com">secyskj@gmail.com</a>,</p>	<p>Sh S R Bhatt Member Secretary Southern Regional Power Committee, No. 29 Race Course Cross Road Bangalore-560 009 Tel: 080-22269012 Mob.: 09620184649 Fax : 080-22259343/ 22352616  <a href="mailto:mssrpc@yahoo.com">mssrpc@yahoo.com</a>,</p>
<p>Sh P S Mhaske Member Secretary Northern Regional Power Committee 18-A, Qutab Institutional Area, Shaheed Jeet Singh Marg, Katwaria Sarai, New Delhi-110 016 Tel: 011-26511211 Mob.: 9968667741 PABX No. 26967842/26868681 Fax : 011-26865206 PABX No. 26967842/26868681 #101 Fax : 011-26865206 <a href="mailto:msnrpc1@yahoo.com">msnrpc1@yahoo.com</a>, <a href="mailto:ms-nrpc@nic.in">ms-nrpc@nic.in</a>,</p>	<p>Sh P K Mishra Member Secretary North Eastern Regional Power Committee NERPC complex Dong Parmaw, Lapalang Shilling-793006 Meghalaya Ph: 0364-2534039 Fax:0364-2534040 Mob:9436163419  email: <a href="mailto:nerpc@ymail.com">nerpc@ymail.com</a>, <a href="mailto:b_lyngkhoi@yahoo.com">b_lyngkhoi@yahoo.com</a>,</p>
<p>Member Secretary Western Regional Power Committee, F-3, MIDC Area, Marol, Opp. SEEPZ, Central Road, Andheri (East), Mumbai - 400 093 Mob.: 9820878384 Tel: 022-28221636 Epabx: 022-28200194-95-96#210 Fax:022-2837 0193 <a href="mailto:ms-wrpc@nic.in">ms-wrpc@nic.in</a>,</p>	<p>Shri A.K. Bandopadhyay Member Secretary EASTERN REGIONAL POWER COMMITTEE 14, Golf Club Road, Kolkata -700 033 Tel: 033-24235016 (direct) Mob.: 9433068533 Fax: 033 24221802, 24171358 <a href="mailto:mserpc-power@nic.in">mserpc-power@nic.in</a>,</p>