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# ASSAM ELECTRICITY REGULATORY COMMISSION

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No. AERC. 423/2013/104

Dated Guwahati the 21<sup>st</sup> March, 2014

**From:** Secretary,  
Assam Electricity Regulatory Commission

**To:** The Secretary, Orissa Electricity Regulatory Commission &  
The Secretary, FORENS,  
Bidyut Niyamak Bhavan,  
Unit-VIII, Bhubaneswar - 751012  
Fax : 0674 - 2393306 / 2395781

**Sub:** Minutes of the Second Meeting of Forum of Regulators for Electricity for the Eastern & North-Eastern States (FORENS) held at Kaziranga, Assam on 7<sup>th</sup> and 8<sup>th</sup> February, 2014

Sir,

I am directed to forward herewith the minutes of the Second Meeting of Forum of Regulators for Electricity for the Eastern & North-Eastern States (FORENS) held at Kaziranga, Assam on 7<sup>th</sup> and 8<sup>th</sup> February, 2014, for favour of your kind information and necessary action.

Encl: As above

Yours faithfully,

  
Secretary,

Assam Electricity Regulatory Commission

1379 OERC	
Date	4/4/14
Designation	Initials
Chairman	
Member	
Member	
Secretary	
Dir. (Tariff)	
Dir. (Engg.)	
Dir. (Law)	
Dy. Dir. (P&A)	
Initial of Central Receiver	

MINUTES OF THE SECOND MEETING OF THE FORUM OF  
REGULATORS FOR EASTERN AND NORTH EASTERN STATES  
(FORENS) HELD AT THE CONFERENCE HALL OF BORGOS RESORT  
AT KAZIRANGA, ASSAM ON 7<sup>TH</sup> AND 8<sup>TH</sup> FEBRUARY, 2014 HOSTED  
BY AERC.

A meeting of the Forum of Regulators of Eastern and North Eastern States (FORENS) was held on 7<sup>th</sup> and 8<sup>th</sup> February, 2014 at Borgos Resort, Kaziranga, Assam.

Members present:

1. Shri Naba Kumar Das, Chairperson, Assam ERC
2. Shri Umesh Narain Panjiar, Chairman, Bihar ERC
3. Shri T.T.Dorji, Chairperson, Sikkim ERC
4. Shri Anand Kumar, Chairman, Meghalaya ERC.
5. Shri N.Shyam Sundar Singh, Chairperson, JERC, Manipur & Mizoram.
6. Shri D.A.Shishak, Chairman, Nagaland, ERC.
7. Shri Sunil Verma, Member (Finance), Jharkhand ERC
8. Shri T.Munikrishnaiah, Member, Jharkhand ERC
9. Shri Sujit Dasgupta, Member, West Bengal ERC
10. Dr.Rajani Kanta Gogoi, Member, Assam ERC
11. Shri Tapan Chatterjee, Member, Assam ERC.
12. Shri Shri S.C.Jha, Member, Bihar ERC

Special Invitees

1. Dr.P.K.Mishra, Director General, Gujarat Institute of Disaster Management and former Chairman, Gujarat ERC.
2. Shri M.R. Karmakar, Ex-Chairman, Tripura ERC.

Officials present:

1. Shri G.K.Dhall,( Secretary OERC), Secretary FORENS.
2. Shri Manash Jyoti Barua, Secretary, Assam ERC.
3. Shri Tapan Mahanta, Deputy Director, (Engg), AERC.

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Meeting on 7.02.2014

Agenda Item No.1

INAUGURATION OF THE CONFERENCE BY SHRI N.K.DAS, CHAIRPERSON,  
AERC

Presiding over the meeting at the very outset Shri Naba Kumar Das, Chairperson AERC welcomed all the members of the Eastern and Northern States present at Kaziranga for the Second meeting of the FORENS and said that Assam ERC was glad to be the host of this Second meeting of FORENS. He hoped that the meeting would deliberate on issues which are of common interest and offered thanks to the Chairperson, Members and officials of the Odisha Electricity Commission for holding the first meeting at Puri on 26<sup>th</sup> and 27<sup>th</sup> October, 2013. There may be some lapse on the part of AERC in respect of preparation of this meeting but it is hoped, the delegates would have a pleasant and comfortable stay in Kaziranga which is a National Park and world heritage site. The park hosts two thirds of the world's great one-horned rhinoceroses and boasts of highest density of tigers among protected areas in the world. This is a very unique place and the guests were requested to visit the park.

He once again welcomed the distinguished guests and wished that the deliberations of the meeting of this Forum would be very fruitful. With these few words, he inaugurated the meeting.

Dr.Rajani Kanta Gogoi, Member, AERC welcomed all the members of the FORENS and requested the Secretary of Assam Electricity Regulatory Commission to felicitate the Hon'ble members of the FORENS with traditional Assamese 'gamosa'.

Secretary, AERC, on behalf of Assam ERC felicitated all the members.

Agenda Item No.2

KEY NOTE ADDRESS BY SHRI T.CHATTERJEE, MEMBER AERC

Shri Tapan Chatterjee, Member, AERC also took the opportunity of welcoming all the Chairpersons and Members of the Electricity Regulatory Commissions of Eastern and North Eastern States to the meeting at Kaziranga, a world heritage site. He also offered thanks to Odisha Electricity Regulatory Commission for taking initiative to hold the first meeting of the FORENS at Puri on 26<sup>th</sup> and 27<sup>th</sup> October, 2013.



He talked about the importance of Renewable Energy which has now been planned to be used worldwide with progressively higher percentage of mix with conventional energy every year. He stressed the need to generate more and more renewable energy of all types including solar and wind by all the States. He said that there should be commercially viable technology so that the cost of energy does not become a burden to the consumers. In India, setting up of a MW size grid connected Solar PV Power Plants had started about 5 years ago when the tariff was around Rs.18 crores/MW. Over the years the tariff has come down to below Rs.9 per unit and capital cost also has come down to less than Rs.8/- per MW because of development of technology, competition and regulatory support. At present, the gap of tariff of energy produced by new solar power stations and new conventional power stations, have been gradually coming down.

He further stated that the solar radiation level is of the order of 4.5 kwh per square meter per day in Assam against more than 6 kwh per square meter per day in States like Rajasthan. The CUF in State like Rajasthan is assessed to be 23. The CUF of Assam has not been properly assessed so far. This is 19 in Assam.

**Shri Chatterjee suggested that MNRE or CERC should carry out a study of the intensity of radiation and CUF in States like Assam.**

He said that the country has been divided into 5 zones of CUF based on only wind power density (watt per meter square) varying from less than 200 to more than 400 and therefore, opined that similar zones may be created for the solar power generation also by creating different zones based on solar radiation.

While drawing the attention of the members to take note of the developments that is taking place all around the world by improving the technology of wind power and in particular by increasing hub height, width of blade and better meteorological prediction of wind flow, he continued that now-a-days even half hourly prediction of flow of wind is possible by measurement from offshore to a large degree of accuracy. This may lead to better generation predictability of wind power.

The RPO obligated entity of the NE States (including the distribution licensees) have not been able to fulfil the obligation. RPO fulfilment is lacking because of its non availability of renewable energy within the State. It is also not possible to schedule renewable energy from other States. An amount of around Rs.150 crore would be necessary in a year to buy REC by the major obligatory

entities like APDCL for being unable to fulfil RPO which has to be passed on to the consumers. The only option of fulfilment of RPO at present would be to purchase RECs (Renewable Energy Certificates). Further, in the REC mechanism money paid for RECs flows out of the State but no electrical energy is received to meet shortage of energy in and peak power requirement. It would be difficult to convince the consumers of Assam for inclusion of such expenses in the ARR, which will result in substantial higher tariff.

**He therefore suggested that for procurement of REC mechanism this amount may be utilised by the developer for development of RE projects within the States like Assam which needs better technology and encouragement for RE development.**

Shri Chatterjee opined that potential of wind power generation is expected to be quite extensive offshore to the land. Many western countries have also undertaken generation of offshore wind power. 3.16 GW of the offshore wind power capacity was operational as of October 2010 mainly in North Eastern Europe. The total offshore wind power capacity is expected to be 75 GW worldwide by 2020 according to some estimates. He said that Odisha and West Bengal have vast coastline in the eastern region where offshore wind power can be developed. The Ministry of New Renewable Energy (MNRE) is the nodal agency for the development of renewable energies at the Central Government. **The States of Odisha and West Bengal may therefore take up the issue with MNRE who may take it up further at all India level.**

He further said that the advent of Smart Grid in the distribution sector has been a major development in recent times. Government of India has proposed 14 nos of Smart Grid Projects; one of such Pilot Projects is for the city of Guwahati in Assam. The present expenditure of the pilot project Smart Grid at Guwahati is Rs.29.93 crore. APDCL has informed that 14.97 crore has been given as grant by the Government of India and the remaining 50%, ie, Rs.14.96 crores will be included by the Govt of Assam in the next budget and as such, there is no financial burden presently to the consumers. Assam Electricity Regulatory Commission will take an appropriate view in due course.

As regards the issue of inter regional transmission line between east and north east, he said that the ATC of these lines is being reviewed very frequently and this causes a reduction of about 100 MW or more because of grid security consideration. He requested the officials from North East Power Grid of North Eastern Region to inform the members of FORENS as to what action is being contemplated by them to mitigate the difficulties of transfer of power from eastern to north eastern region.



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Shri Chatterjee concluded by saying that three presentations on RPO/REC, Smart Grid, and Transmission Lines are slated for next day and he was optimistic that these presentations will throw a very good insight into the different subjects.

Agenda Item No.3:

CONFIRMATION OF THE MINUTES OF 1<sup>ST</sup> MEETING OF THE FORENS  
HELD ON 26<sup>TH</sup> AND 27<sup>TH</sup> OCTOBER, 2013 AT PURI, ODISHA

**After threadbare discussion, the following decisions have been taken .**

**(1)The present annual subscription of Rs.1,00,000 ( one lakh) of the member states will continue for the time being.**

**(2) Rs.One lakh (1,00,000) have to be kept for the FORENS Secretariat. The balance amount has to be shared between the host ERC and the FORENS @50% subject to the maximum of Rs.5 lakh towards the proposed expenditure by the host ERC for organising a meeting of FORENS.**

**(3) It has been further decided that there will be six-monthly meeting of the FORENS.**

Shri Tapan Chatterjee, Member, AERC, referred to page 4 of the minutes and stated that his views had not been properly reflected in the minutes and hence, he had already sent an amendment to the Secretary, FORENS.

The suggested amendment is as follows:

**Shri Tapan Chatterjee, Member, AERC, stated that the cost of purchase of REC is to be included in the ARR of the Distribution Company resulting in increase of tariff of consumers. But Renewable Energy being generally non-dispatchable, consumers do not get any additional power, whether renewable or conventional, against this expenditure on purchase of REC.**

**He suggested that for promotion of REC mechanism, this amount should be utilised by the Developers for development of RE projects within the states like Assam which need better technology and encouragement for RE development.**

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**Shri T.T.Dorji, Chairperson, Sikkim ERC** was of the opinion that the suggestion of Shri Chatterjee is welcome and this facility should be extended to other North Eastern States also. As RPO/REC is mandatory, States cannot opt out of it but they should implement these provisions with proper safeguard of the interest of all the stake holders. He stated that Sikkim is finding out ways and means to develop solar power within the State.

It was agreed that views of the Forum (FORENS) to this effect would be forwarded by the FORENS Secretariat to CERC to amend the provision of RPO/REC.

Shri T.Munikrishnaiah, Member, Jharkhand ERC opined that cost of solar has considerably come down due to rapid technological development. The cost will further come down with the growth of development of technology. The developed states want power from Renewable energy sources. He further opined that the States will have to depend on nature. So, the State Governments have to encourage co-generation also

**(4) The meeting accepted the above amendment moved by Shri T.Chatterjee, Member. AERC.**

With these decisions at (1), (2), (3) and amendment at (4), the minutes of the meeting of FORENS held at Puri, Odisha on 26-27<sup>th</sup> October, 2013, were confirmed.

Agenda Item No.4.

#### CONFIRMATION OF DRAFT CONSTITUTION

Shri U.N.Panjiar, Chairperson, Bihar ERC opined that to have legal entity, the organisation has to be registered first as a society. A separate account will have to be opened in the Bank. Bye laws will come later. So far as the Chairmanship is concerned, let Chairperson of Odisha remain the Chairperson of FORENS Secretariat like FOR (Forum of Regulators) where Chairperson of CERC is the permanent Chairperson of FOR. It was suggested by him that the Chairperson of the organising State shall chair the meeting. But the Chairperson of Odisha ERC has to give his consent.



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Some members suggested that Chairperson of FORENS may be selected by rotation with minimum one year tenure. The drawback in the arrangement is that the Secretariat has to control the affairs from Bhubaneswar in case the responsibility of FORENS Secretariat is accepted by OERC and the Chairperson in a particular year is from different state.

**After detailed discussion, it was decided that the Chairperson of the Odisha ERC would be the chairperson of the FORENS Secretariat and the Chairperson of the organising State Commission shall chair that particular meeting.**

Shri Sunil Verma, Member, Jharkhand ERC opined that the minutes of the meetings will have to be issued by the FORENS Secretariat.

**The meeting agreed to the above suggestion and decided that the minutes of the meeting would be issued by the FORENS Secretariat.**

**With these above decisions, the draft Constitution had been confirmed.**

Participating in the discussion Shri Anand Kumar, Chairperson of Meghalaya Electricity Regulatory Commission opined that certain component of the tariff order issued by different State Commissions vary from one another. He feels that it will be very useful for the State Commissions if these points of differences can be analysed meticulously. Once these differences are identified and analysed some State Commissions even may accept some relevant points according to suitability.

He therefore suggested that as there is shortage of staff in ERCs the FORENS Secretariat in discharging of its function may also take up the exercise of analyzing the recent tariff orders of its member States in respect of important elements of the ARR and salient features of the tariff. The member States will be benefitted by the outcome of this exercise with many good points relating to efficiency improvement and benefit to consumers and more particularly State's development.



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The following decision has been taken:

**The FORUM deliberated on his suggestion in detail and agreed in principle that this exercise may be initiated and discussed in the next meeting of the FORENS.**

Meeting on 8.02.2014

Shri Naba Kumar Das, Chairperson of Assam AERC while continuing to preside over the meeting, once again welcomed all the members.

Agenda Item No.1

PRESENTATION ON SMART GRID POLICY AND REGULATION BY SHRI  
VIKAS GABA, A.F. CONSULTANT

A Power Point Presentation on Smart Grid Policy and Regulation was made by Shri Vikas Gaba, A.F.Consultant. (Copy enclosed at Annexure I).

Participating in the discussions members expressed their views which are mostly consumers oriented, whether introduction of Smart Grid will be helpful to the consumers, whether the rate will be increased. If the rate is increased, members felt, consumers would not be attracted towards this. It has been further observed that in many places there is no meter, in some places although there is meter, reading is not taken, billing is not done and the bill is not submitted to the consumers in time, whether this Smart Grid will address all these demands, whether it will affect all the consumers. It is further observed that already the consumers are heavily loaded and if the rate is increased further, consumers will be burdened and it would go against the interest of the public. Moreover, the existing meters will have to be replaced, which will be the investment of the consumers.

It was generally agreed that there are advantages of Smart Grid which will be fully understood once the system is in place. The present scheme is supported by the Government of India with 50% financial grant. The experience gained after commissioning of the pilot scheme will be useful for future.

Shri Gaba informed that the Regulations of Smart Grid are being evolved. The draft Regulations will be forwarded to FOR for further circulation to the SERCs.

Agenda Item No.2

PRESENTATION ON DEVELOPMENT OF NON-CONVENTIONAL ENERGY – GUJARAT EXPERIENCE BY Dr. P.K.MISHRA, DIRECTOR GENERAL OF GUJARAT INSTITUTE OF DISASTER MANAGEMENT AND FORMER CHAIRMAN,GERC.

A Power Point Presentation has been made by Dr.P.K.Misra on Non-Conventional Energy – Gujarat Experience.( Copy enclosed at Annexure II).

It has been generally observed by the Members that the REC has not evoked proper response in the market and Dr.Mishra was requested to elucidate as to how the REC market can be improved. **Dr.Mishra stated that among the various measures as presented by him in one of his slides, there should be proper incentive mechanism for RE resource rich states as well as RE resource deficit states and also to incentivise transmission infrastructure and balancing power to match variability of the infirm power.**

Agenda Item No.3

PRESENTATION ON TRANSMISSION FOR EVACUATION OF POWER IN NORTH EASTERN REGION BY POWER GRID CORPORATION, NE REGION, SHILLONG.

A Power Point Presentation on transmission for evacuation of power in North Eastern Region has been made by Shri Somiran Das, Manager (Engg) and Shri Kaushik Goswami, Deputy Manager ( PE & SM), Power Grid Corporation, NE Region, Shillong (Copy enclosed at Annexure III)

**During discussion Shri T.T.Dorji, Chairperson, Sikkim Electricity Regulatory Commission referred to the issue of reduction in the ATC of the entire regional transmission lines between the eastern and north eastern States as mentioned by Shri Tapan Chatterjee, Member, AERC on the previous day. He stated that the State of Sikkim is also feeling the disadvantage on this count. He stated that ATC between Sikkim and rest of India is also being frequently curtailed thereby reducing the power transfer capability. He stated that huge amount of hydel power is coming up in the State of Sikkim and that such curtailment would be detrimental to the interest of evacuation of power from that State. He said that if any improvement is possible in keeping the ATC at the proper level by carrying out proper maintenance then that should be done right now before onset of monsoon. The representatives of Power Grid stated**



**that they would bring this issue to the appropriate authorities within their organisation for necessary action.**

Agenda Item No.4

ANY OTHER MATTER WITH THE PERMISSION OF THE CHAIR

Shri T. Munikrishnaiah, Member, Jharkhand ERC put forward a suggestion that like FOIR, retired members of the Commission may also be included in the FORENS.

Though the suggestion was discussed but the meeting could not come to a conclusion.

Shri M.R.Karmakar, Ex-Chairman, Tripura ERC stated that he had retired as Chairman, Tripura ERC on 10<sup>th</sup> of January, 2014 and on the invitation of AERC, the organising committee, he had attended this meeting. He was very much thankful and conveyed his gratitude to AERC and FORENS. Whatever discussions took place he found were very much relevant and essential. He hoped that FORENS would go ahead with this kind of discussion in future.

**It has been resolved that the next meeting of FORENS will be held in October, 2014.**

Dr.Rajani Kanta Gogoi, Member, AERC, while recognising the valuable contribution rendered towards their respective ERCs felicitated Shri N.Shyam Sundar Singh, Chairperson, Jt. ERC, Manipur and Mizoram, Shri B.K.Mishra, Member, Odisha ERC and T.Chatterjee, Member, Assam ERC on behalf of FORENS who are going to retire before the next meeting of the FORENS which is scheduled to be held in October 2014.

Agenda Item No.5.

VOTE OF THANKS

Shri G.K.Dhall, Secretary FORENS offered thanks to the Assam Electricity Regulatory Commission, the organising AERC and also congratulated and offered thanks to all the members of FORENS for devoting valuable time and making the meeting a grand success. He took the opportunity to offer thanks to Dr.P.K.Mishra, the distinguished guest of this meeting for devoting his valuable time in making the Presentation on Development of Non-Conventional Energy and also offered thanks

to the representatives of Power Grid Corporation and Shri V.Gaba, A.F.Consultant for their Presentations.

Shri Naba Kumar Das, Chairperson, AERC, once again thanked everybody from the chair for making the meeting a grand success.

Shri Sunil Verma, Member, Jharkhand ERC, on behalf of FORENS, thanked the Chairperson and Members of AERC for organising this meeting at Kaziranga in Assam in such a befitting manner.

(Meeting concluded)