

**CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI**

Petition No. 180/MP/2017

Coram:

Shri P. K. Pujari, Chairperson

Dr. M. K. Iyer, Member

Shri I. S. Jha, Member

Date of Order: 28.05.2019

In the matter of:

Petition under Section 41 of the Electricity Act, 2003 read alongwith Central Electricity Regulatory Commission (Sharing of Revenue derived from utilization of Transmission Assets for other business) Regulations, 2007 for intimation to engage in other business for optimum utilization of transmission assets.

And

In the matter of

Power Grid Corporation of India Limited
Saudamini, Plot No. 2, Sector- 29,
Gurgaon- 122001, Haryana

....Petitioner

Versus

1. Delhi Transco Limited
Shakti Sadan,
Kotla Road,
New Delhi – 110002
2. BSES Yamuna Power Limited
BSES Bhawan, Nehru Place,
New Delhi
3. BSES Rajdhani Power Limited
BSES Bhawan, Nehru Place,
New Delhi
4. North Delhi Power Limited
Power Trading & Load Despatch Group
Cennet Building, Adjacent To 66/11 kV
Pitampura-3 Grid Building,
Near PP Jewellers Pitampura,



New Delhi – 110034

5. Rajasthan Rajya Vidyut Prasaran Nigam Limited
Vidyut Bhawan, Vidyut Marg, Jaipur – 302005
6. Ajmer Vidyut Vitran Nigam Limited
400kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur.
7. Jaipur Vidyut Vitran Nigam Limited
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur.
8. Jodhpur Vidyut Vitran Nigam Limited
400 kV GSS Building (Ground Floor),
Ajmer Road, Heerapura, Jaipur.
9. Himachal Pradesh State Electricity Board
Vidyut Bhawan
Kumar House Complex Building II
Shimla – 171004
10. Punjab State Electricity Board
Thermal Shed Tia, Near 22 Phatak,
Patiala- 147001
11. Haryana Power Purchase Centre
Shakti Bhawan,
Sector-6 Panchkula (Haryana) 134109
12. Power Development Department
Govt. of Jammu & Kashmir,
Mini Secretariat, Jammu
13. Uttar Pradesh Power Corporation Limited
(Formerly Uttar Pradesh State Electricity Board)
Shakti Bhawan, 14, Ashok Marg
Lucknow – 226001
14. Chandigarh Electricity Department
Div-11, opposite Transport Nagar,
Industrial Area Ph-I,
Chandigarh



15. Uttarakhand Power Corporation Limited
Urja Bhawan, Kanwali Road,
Dehradun
16. New Delhi Municipal Council
Palika Kendra, Sansad Marg,
New Delhi-110002
17. Madhya Pradesh Power Management Company Limited
Shakti Bhawan, Rampur
Jabalpur-482008
18. Maharashtra State Electricity Distribution Co. Limited
Prakashgad, 4th Floor
Andheri (East), Mumbai-400052
19. Gujarat Urja Vikas Nigam Limited
Sardar Patel Vidyut Bhawan,
Race Course Road
Vadodara - 390 007
20. Electricity Department
Goernment of Goa
Vidyut Bhawan, Panaji
Near Mandvi Hotel, Goa - 403001
21. Electricity Department
Administration of Daman & Diu
Daman - 396 210
22. Electricity Department
Administration of Dadra Nagar Haveli
U.T., Silvassa - 396 230
23. Chhattisgarh State Electricity Board
P.O.Sunder Nagar, Dangania, Raipur
Chhatisgaarh-492013
24. Madhya Pradesh Audyogik Kendra
Vikas Nigam (Indore) Ltd
3/54, Press Complex, Agra-Bombay Road
Indore-452 008
25. Assam Electricity Grid Corporation Limited
(Formerly Assam State Electricity Board)
Bijulee Bhawan, Paltan Bazar,



Guwahati – 781001, Assam

26. Meghalaya Energy Corporation Limited
(Formerly Meghalaya State Electricity Board)
Short Round Road, “Lumjingshai”
Shillong – 793001, Meghalaya
27. Government of Arunachal Pradesh
Itanagar, Arunachal Pradesh
28. Power and Electricity Department
Government of Mizoram
Aizawl, Mizoram
29. Manipur State Power Distribution Company Limited
(Formerly Electricity Department, Government of Manipur)
Keishampat, Imphal
30. Department of Power
Government of Nagaland
Kohima, Nagaland
31. Tripura State Electricity Corporation Limited
Vidyut Bhawan, North Banamalipur,
Agartala, Tripura (W) – 799001, Tripura
32. Tamil Nadu Generation and Distribution Corporation Limited
(Formerly Tamilnadu Electricity Board -TNEB)
NPKRR Maaligai, 800, Anna Salai
Chennai – 600 002
33. Karnataka Power Transmission Corporation Limited
Kaveri Bhavan,
Bangalore – 560 009
34. Transmission Corporation of Andhra Pradesh Limited
Vidyut Soudha,
Hyderabad– 500082
35. Kerala State Electricity Board
Vaidyuthi Bhavanam
Pattom, Thiruvananthapuram – 695 004
36. Electricity Department
Government of Goa
Vidyuti Bhawan, Panaji



Goa 403001

37. Electricity Department
Govt of Pondicherry,
Pondicherry - 605001
38. Eastern Power Distribution Company of Andhra Pradesh Limited
APEPDCL, P&T Colony,
Seethmmadhara, Vishakhapatnam
Andhra Pradesh,
39. Southern Power Distribution Company of Andhra Pradesh Limited
Srinivasasa Kalyana Mandapam Backside,
Tiruchanoor Road, Kesavayana Gunta,
Tirupati - 517 501,
Chittoor District, Andhra Pradesh
40. Central Power Distribution Company of Andhra Pradesh Limited
Corporate Office, Mint Compound,
Hyderabad – 500 063
Andhra Pradesh
41. Northern Power Distribution Company of Andhra Pradesh Limited
Opp. NIT Petrol Pump
Chaitanyapuri, Kazipet,
Warangal – 506 004
Andhra Pradesh
42. Transmission Corporation of Telangana Limited
Vidhyut Sudha, Khairatabad,
Hyderabad, 500082
43. Bangalore Electricity Supply Company Limited
Corporate Office, K. R. Circle
Bangalore – 560 001
Karnataka
44. Gulbarga Electricity Supply Company Limited
Station Main Road, Gulbarga
Karnataka
45. Hubli Electricity Supply Company Limited
Navanagar, PB Road
Hubli, Karnataka



46. Mangalore Electricity Supply Company Limited
MESCOM Corporate Office,
Paradigm Plaza, AB Shetty Circle
Mangalore – 575 001
Karnataka

47. Chamundeswari Electricity Supply Corporation Limited
927, L J Avenue
Ground Floor, New KantharajUrs Road
Saraswatipuram, Mysore – 570 009
Karnataka

48. North Bihar Power Distribution Company Limited
2nd Floor, Vidyut Bhawan,
Bailey Road,
Patna – 800 001

49. South Bihar Power Distribution Company Limited
2nd Floor, Vidyut Bhawan,
Bailey Road,
Patna – 800 001

50. Energy and Power Department
Govt of Sikkim, Kaji Road
Gangtok – 727 101
Sikkim

51. Jharkhand State Electricity Board
Engineering Bhawan, HEC Building,
Dhurwa, Ranchi - 834002
Jharkhand

52. West Bengal State Electricity Distribution Company
7th Floor, DJ Block, Vidyut Bhavan,
Salt Lake City
Kolkata - 700091

53. GRIDCO Limited
Bidyut Bhawan, 4th Floor,
Saheed Nagar
Bhubaneswar – 751 007

...Respondents



Parties present:

Shri D. Yadav, Advocate, PGCIL
Shri M. G. Ramachandran, Advocate, PGCIL
Shri Harsh Kaushik, Advocate, PGCIL
Ms. Ranjitha Ramachandran, Advocate, PGCIL
Ms. Poorva Saigal, Advocate, PGCIL
Shri A.K. Arora, PGCIL
Shri Sudesh Yadav, PGCIL
Shri S.C. Agrawal, PGCIL
Shri K. Rathore, PGCIL
Shri Amit Bhargava, PGCIL
Shri Buddy Ranganadhan, Advocate, BRPL
Shri Amiresb Bhardwaj, Advocate, BRPL & TPDDL
Shri Rahul Kinra, Advocate, BRPL & TPDDL
Shri Abhishek Srivastava, Advocate, BYPL
Shri Mohit Mudal, Advocate, BYPL & BSP(H)CL
Shri R.B. Sharma, Advocate, BRPL & BSP(H)CL
Shri S. Vallinayagam, Advocate, TANGEDCO
Ms. Shefali Sobti, TPDDL

ORDER

The present Petition has been filed by Powergrid Corporation of India Limited (hereinafter also referred to as “the Petitioner”) under Section 41 of the Electricity Act, 2003 (hereinafter referred to as ‘the Act’) read with Central Electricity Regulatory Commission (Sharing of Revenue derived from Utilization of Transmission Assets for other Business) Regulations, 2007 (hereinafter to be referred as ‘Sharing of Revenue Regulations’) for prior intimation and for a decision on sharing of revenue for the placement of telecom antenna, power and telecom equipment and drawing power from earth wire under the category “Telecommunication Business” as per Regulation 4(a) of the Sharing of Revenue Regulations.

The Petitioner has made the following prayers:

- a) *The intimation to engage in other business, as per above details, be taken on record by the Hon`ble Commission as provided in Section 41 of the Electricity Act 2003 read alongwith Central Electricity Regulatory Commission (Sharing of revenue*



derived from utilization of transmission assets for other business) Regulations, 2007. The above activity proposed would amount to permitting the placement of telecom antenna, power & telecom equipments and drawing power from earth wire as brought out above and therefore constitute under category "Telecommunication business" as per Regulation 4(a) of the Central Electricity Regulatory Commission (Sharing of revenue derived from utilization of transmission assets for other business) Regulations, 2007; and

b) Decide on the sharing of revenue arising out of the limited utilization of the transmission towers at a later date subsequently to ascertaining the financial viability of the business by the Petitioner.

Submissions of the Petitioner:

2. The Petitioner has mainly submitted as under :

a) The Petitioner carries about 50% of the total power generated in the country and has a power transmission network comprising nearly 141,920 circuit km (ckm) of transmission lines running across the country and 224 Sub-stations and that the Petitioner also holds Unified License for Telecom business and is providing telecom services using transmission line infrastructure.

b) The Digital India Program of Government of India envisages universal mobile connectivity. India has a lot of villages without mobile connectivity and countless sparsely populated areas with poor mobile connectivity. Major constraint for improving the mobile connectivity are:

i. Mobile operators need to incur high capital cost towards land and towers; and

ii. Non-availability of reliable power supply source making it dependent on DG power resulting into high operational cost

c) The above constraints can be overcome to a large extent if transmission towers are used for mounting the telecom antennas and also for mounting the Base



Transceiver System (BTS) and associated auxiliary power supply equipment for mobile communication by constructing a platform on the transmission line tower itself. Further, reliable power supply can also be provided for operation of BTS equipment from transmission line itself by adopting suitable technologies.

d) The Telecom Service providers and Infrastructure providers had approached the Petitioner regarding the utilization/ sharing of Petitioner's transmission towers for mounting of telecom antennas for the purpose of extending mobile coverage in rural and remote areas as most of Petitioner's transmission lines route fall along rural/ interior geographies.

e) The Petitioner has about 2.5 lakh EHV transmission towers located across the country and most of them are in remote and sparsely populated area. In last few years, the Petitioner has explored the telecom market to use these towers for mobile telecom communication. It emerged that transmission line towers can be utilized for this purpose if reliable power and space can also be provided locally. In this regard, a simulation study was carried out and it has been found that power can be drawn from induced voltage in the earth wire of transmission line towers.

f) Based upon simulation study, the Petitioner has carried out experiment on a 400 kV (D/C) line by isolating 2.3 km of earth wire using insulators and tapping 2.5 kW of power by connecting PT to the isolated section of earth wire in January 2017. Additional power can be drawn by increasing the length of isolated section of earth wire or by using earth wire of 765 kV line and using PT of suitable capacity. The advantage of this successful experiment is that power loss which otherwise is happening continuously through earth wire, is utilized by tapping of power through isolated earth wire without any additional generation and transmission losses.



g) Based upon this experiment, a demo set-up has been established at 765/400 kV Jhatikara sub-station of the Petitioner to demonstrate the functioning of the system including Mobile Base Transceiver System (BTS). The demo set-up has been established as an R&D project and the PT has been specifically developed by a manufacturer. The platforms have also been designed considering existing tower and equipment to be installed.

h) The Petitioner is willing to utilize its existing transmission assets for the purpose of mounting telecom antennas for Mobile Telecom Service Provider (TSP)/ Telecom Infrastructure Providers and provide electricity for operation of mobile communication equipment by tapping the induced power in the earth wire without affecting the electricity transmission activities (core activities) of the Petitioner. The said arrangement shall have the following advantages:

- i. Since all Power tapping equipment are connected to Earth Wire, any outage of connected equipment will not cause tripping of EHV line and also there is no other impact on transmission line operation/availability.
 - ii. There is no requirement of land as all equipment shall be kept on the transmission tower itself.
 - iii. Since transmission line availability is generally more than 99.5%, the said arrangement shall provide highly reliable power, thereby eliminating need of DG set, consumption of diesel and reducing carbon footprint.
 - iv. Improving mobile connectivity and quality of service in areas having deficiency of Telecom mobile network thus help the Digital India program of Govt. of India.
- i) Accordingly, the Petitioner has proposed to offer its transmission towers to Mobile Telecom Service Providers/ Telecom Infrastructure Providers on commercial basis, in line with Section 41 of the Electricity Act 2003.



j) The salient aspects of the above proposal as required to be intimated under Regulation 3 of Sharing of Revenue Regulations are as under:

i. Nature of other business: To provide facilities for installation of telecom antennas and mobile communication equipment on feasible transmission towers and sub-station structures along with power through induction for operation of equipment to Telecom companies.

ii. Capital Investment in other business: The preliminary estimated investment would be approximately Rs. 20 lakh/ transmission tower and the total investment would depend upon various factors viz. number of towers utilized, tower voltage level, tenancy per tower etc.

iii. Revenue derived or estimated to be derived from other business: The Petitioner has not ascertained the financial viability of the proposed business as the same would largely depend upon various factors such as number of towers utilized, location of tower and business of Telecom players in the area (population/ prosperity level). The revenue derived or estimated to be derived from the proposed other business can only be provided by the Petitioner after exploring the market.

iv. Assets utilized or proposed to be utilized for other business: Feasible tower space for mounting of the telecom antenna and power tapping arrangement at a suitable height to be decided based on various requirements and constraints. The utilization of the assets shall be at all events subject to the priority being given to the core activity of electricity transmission. The parties will be allowed to install their telecom antennas and equipment subject to the condition that it does not in any manner affect the core activity of electricity transmission. The Petitioner will



continue to have complete supervision and control over the utilization of the transmission tower/ assets.

v. Cost of the assets utilized or proposed to be utilized: The telecom antenna and other electrical/ electronics equipment to be installed shall be on the transmission towers at an appropriate place to be decided under the supervision and control of the Petitioner. The power for electronic equipment will be provided through earth wire, which otherwise is drained in the ground through earthing of ground wire on each tower. As such, there cannot be any cost assigned to the asset to be utilized by the selected party.

vi. Impact, if any, of the use of assets from other business on inter-State transmission of Electricity: No impact is envisaged from the proposed business on the inter-State transmission of electricity. Further, the permission to mount the telecom antennas on towers and feeding of power supply from isolated earth wire shall be given after verification of the structural strength and other technical parameters. Also efforts shall be made to ensure that there is no impact on the inter-State transmission of electricity during the prospective usage of power tower for mounting of antennas. In order to protect the core activity, the Petitioner will continue to have supervision and control on the activity of the selected persons and the personnel of the Petitioner shall have full authority to supervise and give directions in regard to the installation, operation and maintenance of the antennas etc.

vii. The Petitioner undertakes that while carrying-out the aforesaid business, it shall ensure that the utilization of its assets for this proposed business shall not in any manner adversely affect its performance or obligation in the transmission business.



3. Notices were issued to the respondents to file their replies. Replies have been filed by UPPCL, MPPMCL, BRPL, MSEDCL, Bihar Discoms, TPDDL, WBSEDCL, Karnataka Discoms and TANGEDCO. The Petitioner has also filed rejoinders to the replies of the Respondents.

Replies of the Respondents

Reply of UPPCL:

4. UPPCL vide its affidavit dated 1.12.2017 has submitted as under:
- a) Before granting approval to proposal of the Petitioner, the Petitioner may be directed to submit the Detailed Project Report (DPR), technical approval of the Standing Committee of Northern Region and other regions, administrative approval of the Board of Directors of the Petitioner, details of clearance between the proposed equipment with the live transmission line to satisfy the requirements of Indian Electricity Rules.
 - b) The Petitioner should ensure non-hindrance of transmission services due to frequent maintenance of mobile telecommunication equipment.
 - c) The telecommunication service provider should maintain the proposed equipment installed on EHV towers and the same must be supervised by PGCIL in order to avoid fatal accidents. The Petitioner may also be directed to submit the plan of supervision of maintenance work.
 - d) The tariff for power supply to the mobile service providers may be decided by the Commission. Since PGCIL will supervise the maintenance work, 20% of the revenue earned may be credited to PGCIL and the balance 80% to the beneficiaries.



Reply of MPPMCL:

5. MPPMCL vide its affidavit dated 30.12.2017 has submitted that the Petitioner's proposal for the optimum utilization of its transmission assets may be granted subject to the following conditions:

- a) It should not in no way result in any interruption in power supply,
- b) The cost to be incurred on installation of system for other business is to be borne by the Petitioner in full and in no case any amount shall be passed on to the respondents.
- c) The sharing of revenue due to optimal utilization of transmission tower shall be in the same ratio in which PoC charges are being billed, on monthly basis.
- d) The tenancy in each tower shall be in such a manner that it does not disturb the normal functioning of system and is not more than load bearing capacity/ structural strength of tower.

Reply of BSES Rajdhani Power Limited:

6. BSES Rajdhani Power Limited vide affidavit dated 5.9.2018 has submitted as under:

- a) The Petitioner's proposal to supply power to the telecom service providers from the isolated earth wire amounts to sale and purchase of power i.e. trading of electricity which is prohibited under first proviso to Section 38 and third proviso of Section 41 of the Act. The said provisos categorically provide that no transmission licensees shall enter into any contract or otherwise engage in the business of trading in electricity. Therefore, any sale and purchase of power cannot be undertaken by the transmission licensee even under the garb of "other business".
- b) The Petitioner has proposed to supply power to telecom asset/ transmission system from the isolated earth wire, which would mean that PGCIL is indulging in the



trading of electricity despite being a transmission licensee, i.e. PGCIL is actually purchasing and selling electricity, which implies that the Petitioner is performing the function of distribution licensee. The Petitioner does not have a distribution system and distribution licence as required under the Act.

c) Section 12 read with Section 14 of the Act provides that transmission/ distribution/ trading of electricity can be undertaken only with license granted by the Appropriate Commission. The Petitioner being Central Transmission Utility is a deemed transmission licensee under the Act. As per Section 38 of the Act, petitioner can only undertake the functions assigned to it under the Electricity Act i.e. transmission of electricity and associated facilities. There is no provision which enables petitioner to indulge into trading/ supply of electricity. Further, the third Proviso to Section 41 of the Electricity Act, creates an embargo on the transmission licensee for undertaking trading in electricity. Therefore, if petitioner seeks to engage in trading/ supply of electricity, it would require a distribution license in terms of the Act. Further, petitioner would also be required to create a distribution system which it cannot do under the current regulatory framework.

d) As per the proviso to Section 41 of the Act, the Commission has to stipulate a 'proportion' or 'percentage' of the 'other income' that has to be utilized towards the reduction of transmission charges. The State Electricity Regulatory Commissions in their Regulations always provide for a proportion for sharing of revenue derived from other business. Therefore, the Commission should consider to appropriately fix the percentage/ proportion of revenue (not in absolute numbers) to be shared with beneficiaries, from the income earned by Petitioner from the proposed business.

e) The proposed action of Petitioner for offering transmission towers to telecom service providers may compromise the quality of power being supplied. Section



38(2)(c) of the Act mandates PGCIL to ensure smooth flow of electricity and development of an efficient, coordinated and economical system. Accordingly, suitable safeguards should be specified by the Commission while taking a final view on the proposal submitted by PGCIL.

f) The Petitioner has to ensure that the implementation of the telecommunication system should not result into outages which disrupt smooth flow of electricity. In case, there is outage due to implementation of the telecommunication system, the same should be excluded while calculation of availability of the transmission assets.

g) Since the cost involved in mounting the telecom antenna for Mobile Telecom Service Providers and any structural changes in existing or future lines/ tower/ foundation of tower do not fall within the ambit of allowed expenses under the Central Electricity Regulatory Commission (Terms & Conditions of Tariff) Regulations, 2014 (hereinafter referred to as the 2014 Tariff Regulations), it should not be passed on to the beneficiaries and ultimately on to the consumers.

h) The Revenue earned by the Petitioner from its proposed business should be shared on proportionate basis instead of static number.

i) As per Section 41 of the Act, the Petitioner is mandated to maintain separate accounts for the proposed telecommunication business to ensure that transmission business neither subsidizes in anyway such business undertaking nor encumbers its transmission assets in any way to support the proposed telecommunication business.

j) It may be a possibility that the Petitioner's same staff would be handling Petitioner's transmission business and "other business" of mounting/ maintaining the telecom antennas for Mobile Telecom Service Provider (TSP)/ Telecom Infrastructure Providers and in the implementation of the telecommunication asset. The Commission may direct petitioner to develop a mechanism where such overlapping of human



resources does not happen. In case the same human resources are employed in the conceptualization, implementation or maintenance of the proposed telecommunication business, the petitioner shall apportion the employee expense accordingly and make necessary adjustments in the books of accounts.

Replies of North Bihar Power Distribution Company Limited and South Bihar Power Distribution Company Limited:

7. Bihar Discoms vide its affidavit dated 11.9.2018 have submitted as under:
 - a) The Petitioner has not ascertained the financial viability of the business. Therefore, it would be difficult for the Commission to decide on the sharing of revenue.
 - b) The Petitioner has not placed on record a copy of its Unified License. The Petitioner may explain if this Unified License is for laying Optical Ground Wire (OPGW) (known as the optical fibre composite overhead ground wire also providing wide-band communication network) besides the ground wire for the transmission network. Accordingly, the Petitioner may explain whether it is also operating as Mobile Operator as indicated in the financial proposal and technical paper.
 - c) The Petitioner shall ensure the soundness of its R&D project for tapping induced power in the earth wire of 400 kV line as any failure would put the Petitioner in severe problems for which the Petitioner itself shall be responsible. The beneficiaries will not assume any risk and the entire risk of success or failure of the project rests with the Petitioner.
 - d) The Petitioner is required to furnish the details of the amount that the Petitioner would obtain from levying of fees and other charges that will be available for sharing with the beneficiaries. Once these details are made available, the Commission can decide the sharing between the Petitioner and the beneficiaries.



- e) To determine the market based monthly lease price, it may be desirable for the Petitioner to float tender for offering such facility.
- f) The Petitioner has stated that as per industry feedback, approximately 8 kW power is required to run the BTS System. This is required to be re-checked especially in the context of the rural/ remote areas and countless sparsely populated area with poor connectivity.
- g) The present Petition is not for determination of share for any asset as such. This petition rather requires the Commission to frame and amend the Sharing of Revenue Regulations to take care of sharing the revenue derived from utilizing the transmission towers for mounting of telecom antennas and other telecom equipment. Accordingly, the present Petition is for amendment of the above regulations which can only be undertaken when the information required for such amendment is provided by the Petitioner. Accordingly, the filing of the petition at this point of time is premature.

Reply of MSEDCL:

- 8. MSEDCL vide its affidavit dated 13.11.2018 and 8.1.2019 has submitted as under:
 - a) The proposed utilization of power by the Petitioner amounts to trading of power, which is contrary to Section 41 of the Act. Therefore, the Commission should not allow the petitioner to resale or trade such power to telecom utilities.
 - b) The Petitioner has considered the rent of the installation to be paid by telecom operators to the Petitioner but has not considered the energy charge payable by the telecom operators. The energy utilized for charging of such telecommunication installation/ antenna is the power from the share of State utilities. At present, the telecommunication equipments/ antenna is provided with a separate power supply connection by the State Discoms and is billed by them under different tariff categories. In case, the Commission decided to allow the Petitioner to facilitate telecommunication



consumers by the proposed methodology, the Petitioner is required to take a separate power supply connection and also to make a separate metering arrangement.

c) At present, 100% expenditure incurred on CTU infrastructure is reimbursed through PoC mechanism by State Discoms. Therefore, 100% revenue earned by the Petitioner by the proposed methodology through rent etc. should be utilized towards reduction of transmission charges payable by the beneficiaries of the assets. Further, the revenue may be shared in proportion to the PoC charges payable by the State Discoms and shall be adjusted on monthly basis in the bills of the respective months.

d) The Petitioner has submitted the estimated O & M charges consisting of the average marketing spend, watch & ward insurance, maintenance cost etc. Some of the O & M charges claimed by the Petitioner are not part of the O & M charges and therefore, same should be disallowed.

e) The Petitioner should ensure uninterrupted and reliable supply during installation or during operation of telecom equipment. The Commission is requested to ensure the reliability and availability of the transmission system upon installation of telephone equipment at any point of time.

f) All the Discoms receiving inter-State power through CTU bear the transmission charges and losses as per Central Electricity Regulatory Commission (Sharing of Inter State Transmission Charges and Losses) Regulations, 2010 (hereinafter referred to as the 2010 Sharing Regulations) and, therefore, Discoms have exclusive right on the power induced or to be utilized by transmission utility for telecom antennas for Mobile Telecom Services.

g) As per Section 55 of the Act, the supply of power to telecom towers can be supplied through distribution licensees only.



h) The electricity can be supplied through meter only and distribution license shall be responsible for accounting and billing of the same area in the area of supply of distribution licensee. The telecom utilities have to pay for the actual energy consumed. The Petitioner can collect rent/ monthly charges for facilitating its tower to telecom utilities and the same need to be shared with the Discoms.

Reply of TANGEDCO:

9. TANGEDCO vide its affidavit dated 6.12.2018 has mainly submitted as under :

a) The Petitioner being the Central Transmission Utility and a deemed transmission licensee under the Act is prohibited from generation or distribution or trading of electricity under Section 38 of the Act. Further, Section 41 stipulates that transmission licensees may engage in any other business for optimum utilization of assets while forbidding them from entering into any contract or engage in the business of trading in electricity.

b) The power supply to BTS and associated equipment is the basic requirement for the telecom operators apart from the land requirement. It is an established fact that the energy requirement of the telecom operators has to be billed by some agency which should also be metered. Therefore, the activity of supplying energy to the telecom operator comes under definition of 'trading' which is prohibited to the Petitioner under the Act.

c) The distribution companies are paying the energy charges not only for the energy consumed but also for the transmission losses, which the Petitioner is well aware of. Regulation 6 and 7 of the 2010 Sharing Regulations mandates the drawee entities i.e. the beneficiaries to bear the energy losses. The extracting of energy paid by DICs and trading the same by the Petitioner is illegal, which is prohibited under Section 38 and 41 of the Act.



d) The access to transmission facilities and RoW (Right of Way) should be awarded through open competitive bidding for a specific term and should be auctioned on termination of the term. Further, the capital investments for creation of transmission assets are fully recovered from the beneficiaries/ DICs and hence, the benefit reaped out of renting/ utilizing the transmission assets should be fully passed on to the beneficiaries except the overhead charges of TSP for implementing the scheme. CTU may act as a facilitator between the distribution companies and Telecom Operator to extract the energy from the transmission system and supply to the BTS with proper metering.

Replies of BESCO & MESCOM, vide affidavit dated 11.2.2019, HESCO vide affidavit dated 13.2.2019 and CESCL vide affidavit dated 18.2.2019:

10. These Respondents have mainly submitted as under:

a) The Petitioner's proposal to supply power to Telecom Service Provider by tapping power from the isolated earth wire, is in violation of first proviso to Section 38 and third proviso to Section 41 of the Act. The Petitioner's proposal amounts to supply/ sale of power by transmission licensee which is not permissible under the Act.

b) As per Section 38 of the Act, the Petitioner can only undertake the functions assigned to it under the Act i.e. transmission of electricity and associated facilities. There is no provision under the Act which enables the Petitioner to indulge into trading/ supply of electricity. Further, the third proviso to Section 41 of the Act prohibits transmission licensee to trade electricity.

c) Section 41 of the Act provides that the revenue derived from the other business of the transmission licensee have to be on proportionate basis. Accordingly, the revenue that the Petitioner seeks to share with the beneficiaries has to be on proportionate basis.



- d) The Petitioner should ensure that utilization of its assets for the other business should not in any manner adversely affects its obligation in the transmission business.

Discussion with Stake-holders

11. The Commission vide RoP of hearing dated 13.9.2018 directed the Petitioner to discuss the matter with distribution companies explaining the benefits of the scheme and submit their views/ comments on the issue. In compliance of this direction, the Petitioner had uploaded the petition along with financial proposal seeking comments from the State Distribution Licensees. The Petitioner also uploaded a report of KPMG submitted to PGCIL on its website on 8.10.2018 for comments of the stakeholders.

12. The petitioner has proposed to pay the beneficiaries as under:

- a) As per CERC Norms in Transmission line business, petitioner will get the RoE @15.5%. However, considering the benefits to the rural society, the Petitioner has proposed to pay to the beneficiaries @ Rs.12,000/ location/ year (Approx. 13.5% of profit before tax) and accordingly total sharing with beneficiary will be:

Case-I (Leasing of 1250 Towers)	Total Revenue	Rs. 68 crore/year
	Total PAT to POWERGRID	Rs. 7.4 crore/year
	Sharing with beneficiary	Rs. 1.5 crore/year
Case-II (Leasing of 6000 Towers)	Total Revenue	Rs. 324 crore/year
	Total PAT to POWERGRID	Rs. 35.6 crore/year
	Sharing with beneficiary	Rs. 7.2 crore/year

- b) Further, the Petitioner has submitted that presently all the assumptions are taken based on KPMG Report (estimated values) and interaction with existing Infrastructure service provider. However, the actual revenue/ profits will depend upon the cost of procurement for material (supply and installation) and actual revenue

earned from the customers. In case of major variations in expenditure and revenue, revised proposal will be submitted to CERC.

13. The Petitioner received comments/ observations from the following Distribution Licensees:

- (a) West Bengal State Electricity Distribution Company Limited
- (b) M.P. Power Management Company Limited
- (c) Tata Power Delhi Distribution Limited
- (d) BSES Rajdhani Power Limited

14. WBSEDCL has submitted as under:

(a) The proposed business of the Petitioner includes an element of power supply to the telecom antennas to be installed on transmission towers. The supply of power to end consumers is the function of Distribution Licensee, not the transmission licensee as per provisions of the Act. Therefore, the CTU cannot supply power to such mobile operators for mounting telecom antennas.

(b) The beneficiaries, such as Distribution Licensee, will lose its business to the extent of its power supply to such telecom antennas by the Petitioner.

(c) Sharing of only about 13.5% of PBT (Rs. 1000/- per month per location) with the beneficiaries has been proposed at Sl. No. 5 (e) II of the Financial Proposal considering towers in rural areas on single tenancy basis. Petitioner is retaining 86.5% of PBT (Rs. 4957/- per month per location after tax).

(d) The net revenue of beneficiaries after tax will be negligible while they would lose business of supply of power to the telecom operations. Thus, with this proposition of the Petitioner, there may be a net revenue loss to the Distribution Licensees. In this context the gain sharing should be fixed at such a level so that Distribution Licensees are compensated to the extent of loss in business.



15. MPPMCL has submitted that the sharing should be on 50:50 basis rather than sharing only 13.5% with the beneficiaries.
16. TPDDL has submitted as under:
- (a) The proposal of the Petitioner to share 13.5% of revenue is against the purport of Section 41 of the Act which provides that the revenue derived from “other business” of the transmission licensee must be on a ‘*proportionate*’ basis.
 - (b) The methodology of proportion should be followed so that any change in revenue from “other income” is accounted for i.e., there is an increase in revenue shared, in case the income from “other sources” increases or vice versa. Therefore, the income from other sources be shared among the beneficiaries and petitioner in some proportion and not a fixed amount.
 - (c) The concept of sharing of revenue on proportionate basis is being followed by most State Electricity Regulatory Commissions. The same is evident from the list of regulations in force enacted by various State Electricity Regulatory Commissions.
 - (d) The petitioner may retain 10% of the net revenues and pass on the remaining 90% revenue to be shared with the beneficiaries. As such, an increase in the revenue would lead to reduction in transmission tariff, and consequentially benefit of the same shall be passed on to the end consumers, as envisaged under section 61 of the Act.
 - (e) Any cost incurred by petitioner which includes Capital Expenditure and Operational Expenditure or other business cost, in creating the infrastructure for the proposed project should be completely financed through the revenue generated by the transmission system. The same should not be made a part of the Capital Cost and O&M expenses for the purpose of tariff of the concerned transmission system



17. The Petitioner has filed its rejoinder to the reply of WBSEDCL vide affidavit dated 15.11.2018:

a) The act of providing of electricity by the Petitioner for the telecom equipment installed its transmission towers out of electricity which was otherwise going waste into the earth does not amount to either generation or trading of electricity. And, therefore, the prohibition contained under Sections 38 and 41 of the Act is not applicable upon the Petitioner.

b) The core activity under the proposed scheme is to provide space to the telecom operator to install their telecom antenna/ BTS Equipment on the transmission tower. The provisioning of electricity to these mobile antennas is only an ancillary and incidental act, which would be facilitated by the Petitioner by tapping of induced energy from earth wire of its transmission line, which otherwise goes waste.

18. The Petitioner in its Rejoinder to the replies of BRPL, TANGEDCO, MSEDCL, Karnataka Discoms has mainly reiterated the submissions in the Petition.

Report of the Committee:

19. The Commission vide RoP dated 11.1.2018 had constituted a Committee under the chairmanship of Chief (Finance) of CERC with Chief (Engineering) and Chief (Law) as members to look into the technical and financial aspects of the project. The Committee recommended as under:

a) The proposed use of the existing transmission line will not alter the rights of the procurers of the transmission service, but, it will optimize the utilization of the assets which is permitted under Section 41 of the Act.

b) POWERGRID may be allowed to undertake the business of offering its transmission line towers to Mobile Telecom Service Providers! Telecom Infrastructure Providers on commercial basis, in line with Section 41 of the Electricity Act, 2003, for effective utilization of assets and to benefit the society at large.

c) The act of providing electricity by POWERGRID for the telecom equipment installed on its transmission towers out of the electricity which was otherwise wasted does not amount to



'generation' or 'trading' in electricity and thus the prohibition prescribed under the first proviso to Section 38 and the third proviso to Section 41 of the Electricity Act, 2003 would not be applicable in any way to the activity proposed by POWERGRID.

d) It is felt prudent that in initial stages sharing of revenue after meeting cost may be in the ratio of 50:50 with the beneficiaries. However, the same may be reviewed at a later date (after one year) after ascertaining the financial viability of the business by POWERGRID.

The Report was furnished to the Stakeholders on 13.2.2019.

Submission of TANGEDCO in response to Committee report.:

20. TANGEDCO vide affidavit dated 1.3.2019 has additionally submitted that:

a) The Committee has recommended in its report that PGCIL may be allowed to undertake the business of offering its transmission towers to mobile telecom service providers/ telecom infrastructure providers on commercial basis in line with Section 41 of the Act for effective utilisation of assets and to benefit the society at large. This recommendation is legally untenable as there is a specific proviso under Section 41 of the Act banning the transmission licensee from entering into trading of electricity even though the Act allows the transmission licensee to do other business for optimum utilisation of its assets. It is to be stated here that the Petitioner is doing other business related to telecom in line with the provisions of Act and the Sharing of Revenue Regulations, wherein petitioner is permitted to lay one optical fiber cable or optical fiber composite overhead ground wire. There is no trading of electricity involved in that business.

b) The telecom BTS and the ancillary equipment along with battery backup require 24x7 power supply for uninterrupted transmission of communication signals. The telecom operators are availing exclusive service connection with a power demand ranging from 3 kW to 32 kW. Thus, power supply to the BTS and associated equipment is the basic requirement for the telecom operators apart from the land requirement. It is



an established fact that the energy requirement of the telecom operators has to be supplied by some agency which should also be metered. Hence, the activity of “supplying energy” to the telecom operator comes under “trading”, which the petitioner is prohibited under law.

Submissions of BSES Rajdhani Power Limited in response to Committee report:

21. BSES Rajdhani Power Limited vide affidavit dated 2.3.2019 has submitted as under:

a) The remit to the Committee, constituted in terms of ROP dated 11.1.2018 was only in respect of the “*Technical and Financial Aspects*”. However, the Committee has chosen to give recommendations on legal issues as well which is completely beyond the scope of the Terms of Reference. The Committee has chosen to give recommendations after interacting only with petitioner and not with the other stakeholders.

b) The Committee has provided a rationale that the proposed business of PGCIL is not barred under Section 38 and 41 of the Electricity Act, 2003 as under:

“The act of providing electricity by POWERGRID for the telecom equipment installed on its transmission towers out of the electricity which was otherwise wasted does not amount to 'generation' or 'trading' in electricity and thus the prohibition prescribed under the first proviso to Section 38 and the third proviso to Section 41 of the Electricity Act, 2003 would not be applicable in any way to the activity proposed by POWERGRID.”

However as evident from Recommendations, the Committee has not heard the answering respondent and has returned a finding on its written Reply.

c) The Committee has proposed sharing of revenue in the ratio of 50:50. It is submitted that rentals to be incurred by telecom service providers for BTS (Base Transceiver System) mounted on transmission towers comprise of expenditures for:

i. providing uninterrupted & reliable power supply to BTS in remote rural areas;



- ii. providing safe platform for installing the telecom mobile antenna on EHV line towers;
- iii. basic capex incurred by PGCIL for installing the BTS & tapping of induced electricity in earth wire as reliable source of power supply to BTS.

22. The first two category of afore-mentioned expenditures is being borne by the beneficiaries. It has suggested that the revenue sharing should be done in the ratio of 60:40 for the gains instead of the proposed ratio of 50:50. It has also suggested that gain-sharing percentage of petitioner may be gradually restricted to recovery of O&M and other necessary expenditure incurred by petitioner, once Petitioner is able to recover the total capital expenditure incurred by it.

Submission of GUVNL:

23. GUVNL has mainly reiterated the submissions made by other Respondents. Additional issues raised by GUVNL vide its affidavit dated 27.3.2019 are as under:

- a) The power flow through transmission line from the generating station to beneficiary is to the account of beneficiary having tied up power at generator bus bar. The power which is delivered to beneficiary at its periphery is reduced by the applicable transmission losses which also include the power induced in the earth wire.
- b) The sharing of revenue for sharing of transmission infrastructure with Telecom Operators should be fixed in such a manner that the DISCOMs are adequately compensated for the revenue loss due to loss of business. Alternatively, the power supply to the Telecom Operator (BTS) may be appropriately measured and considered as supply by the local DISCOM at the tariff determined by respective State Electricity Regulatory Commission. The surplus revenue thereafter needs to be shared in the ratio of 50:50.



c) The intention of the project is to strengthen telecommunication infrastructure mainly in the remote area. In the state of Gujarat, 24 x 7 power supply is catered even in the remote area and, therefore, the loss of business to the State DISCOM would be significant. Therefore, it is appropriate that the lending of transmission tower be restricted only to remote locations where DISCOM power is not available or is intermittently available. Accordingly, the locations of tower for installation of BTS equipment may be identified and finalized in consultation with local DISCOM.

d) In the report submitted by committee constituted by Commission vide hearing dated 11.01.2018, it is stated that under the proposed arrangement, PGCIL shall have to pay DoT license fee @ 8% of the revenue. It is not understood as to why PGCIL shall have to pay license fee to DoT when PGCIL is only providing rental service to the Telecom Operators. In any case, since the project is envisaged to boost telecommunication infrastructure in remote areas, it would be appropriate that PGCIL takes up the matter with Govt. of India for waiver of such fee if any.

e) Since the existing transmission towers are to be used for extending the proposed service to the telecom providers, all safety measures need to be in place to ensure that there is no risk to the transmission system due to the changes made in the infrastructure in all circumstances including lightning strikes.

Submission of BRPL:

24. BSES Rajdhani Power Limited vide its affidavit dated 28.3.2019 has additionally submitted as under:

a) The Petitioner has submitted that the proposed business would amount to “supply”, for which no license is required in terms of Section 12 and 14 of the Act. Hence, Petitioner’s contention that the supply of power is permissible under the Act,



has to be rejected since the Petitioner, vide its proposed business, proposes to supply power to telecom asset/ transmission system which would mean that petitioner is indulging in the trading of electricity despite being a transmission licensee, i.e., petitioner is actually purchasing and selling.

b) As evident, the definition of distribution licensee subsumes, within itself the supply business which is part of a distribution license, and the Act does not envisage a distinction between the “supply” licensee and a “distribution” licensee.

c) Even the license issued to a DISCOM, under the Act provides for authorisation for ‘distribution’ and ‘supply’ business, implying that supply cannot be undertaken without a license. It is only through the proposed 2018 amendment of the Act that the legislators are attempting to segregate the business of a “supply” and “distribution” licensee. BRPL, being a distribution licensee in the NCT of Delhi has been granted “License for Distribution and Retail Supply of Electricity” by the Delhi Electricity Regulatory Commission.

d) A mere perusal of the provisions of Sections 2(73) (“transmission licensee”) and 2(74) (“transmit”) in contrast to Section 2(17) (“*distribution licensee*”) of the Act makes it evident that only the distribution companies have the right to supply electricity whereas transmission licensee can only transmit i.e., *conveyance of electricity*.

e) If the arguments made on behalf of Petitioner were to be considered, then there would not have been requirement of distinctive definition of the word “transmit”, which restricts the business of transmission only to conveyance of electricity and not supply as provided under the definition of “distribution licensee”, which provides for supply of power by the distribution licensee to “licensee” or “consumer”.

f) Section 12(a) read with section 14(a) of the Act provides that the Appropriate Commission on an application made before it to grant licensee “(a) to transmit



electricity as a transmission licensee” and not otherwise, which is evident from the fact that distribution license can also undertake trading of electricity whereas the transmission licensee, is prohibited to undertake trading of electricity.

g) As per section 55 of the Act any ‘supply’ to be done under the Act has to be monitored and quantified by means of a meter, as under:

“Section 55. (Use, etc., of meters): --- (1) No licensee shall supply electricity, after the expiry of two years from the appointed date, except through installation of a correct meter in accordance with the regulations to be made in this behalf by the Authority.”
[Emphasis Supplied]

However, as is evident, the proposed project plans to charge a fixed monthly fee from the consumers. Thereby, the proposed project is *prima facie* not permissible under the Act.

h) If the above contentions of BRPL on legality of proposed business were not considered and rejected by CERC, then the revenue sharing between PGCIL and the beneficiaries should be in the ratio of 60:40.

25. The Petitioner vide its affidavit dated 2.3.2019 has submitted its comment on the report submitted by Committee constituted vide RoP dated 11.1.2018. The Petitioner has submitted that State Electricity Regulatory Commissions in their Regulations have also provided the revenue sharing mechanism for Other Business wherein the sharing of revenue vary from 33% to 66% from such Other Business after deduction of all direct and indirect costs. The proposal of the committee to share 50% to beneficiaries after meeting operational cost does not take into account the impact of total funding cost, Income Tax etc. Therefore, it is proposed that revenues should be shared in the ratio of 50:50 after deducting all direct and indirect costs.



Analysis and Decision:

26. The Petitioner has proposed to utilize its existing transmission assets for the purpose of placement of telecom antennas and mobile and telecom equipment for mobile telecom service providers and providing electricity to these telecom equipment by tapping the earth wire. The present petition has been filed for prior intimation to the Commission under Section 41 of the Act. The Petitioner has stated that this activity of the Petitioner is covered under the category of “telecommunication business” as per Regulation 4(a) of the Sharing of revenue Regulations. The Petitioner has requested the Commission to decide on the sharing of revenue arising out of the utilization of the transmission towers for the purpose of telecom business. It has also stated that this determination may be from a later date since the Petitioner is still in the process of ascertaining the financial viability of the proposed business.

27. The Petitioner has submitted its proposal as required under Regulation 3 of Sharing of Revenue Regulations. The Petitioner has submitted details of the proposed other business as regards (a) its nature; (b) capital investment; (c) expected revenue derived or estimated to be derived; (d) assets utilized or proposed to be utilized; (e) cost of the assets utilized or proposed to be utilized; and (f) impact, if any, of the use of assets from other business on inter-State transmission of Electricity.

28. The Petitioner has stated that it has a power transmission network of nearly 141,920 circuit km (ckm) of transmission lines running across the country and has 224 Sub-stations. It holds Unified License for Telecom business and is providing telecom services using its transmission line infrastructure. It has submitted that in rural and remote areas, the major constraint in improving the mobile connectivity are high capital cost towards land and towers and non-availability of reliable power supply making it dependent on DG power resulting in



high operational cost. The Petitioner has stated that these constraints can be overcome to a large extent if transmission towers of the Petitioner are used for mounting the telecom antennas, Base Transceiver System (BTS) and associated auxiliary power supply equipment for mobile communication by constructing a platform on the transmission tower itself. Further, reliable power supply can also be provided for operation of BTS and other equipment from transmission line itself by adopting suitable technologies.

29. The Petitioner has stated that it has about 2.5 lakh EHV transmission towers located across the country and most of them are in remote and sparsely populated area. The Petitioner has submitted that a simulation study was carried out and it has been found that induced voltage in the earth wire of transmission towers can power equipments. Based on simulation study, the Petitioner has carried out an experiment on a 400 kV (D/C) line by isolating 2.3 km of earth wire using insulators and tapping 2.5 kW of power by connecting PT to the isolated section of earth wire in January 2017. The experiment has led to the conclusion that power loss which otherwise takes place through earth wire, can be tapped through isolated earth wire, without any additional transmission losses.

30. The Petitioner has stated that a demo set-up has been established at 765/400 kV Jhatikara sub-station of the Petitioner to demonstrate the functioning of the system including Mobile Base Transceiver System (BTS). This set-up has been established as an R&D project.

31. The said arrangement has several advantages such as (a) any outage of connected equipment will not cause tripping of EHV line; (b) there is no other impact on transmission line operation/ availability; (c) there is no requirement of additional land; (d) transmission line availability being more than 99.5%, highly reliable power will be available and eliminate need of DG set, consumption of diesel and reducing carbon footprint.



32. On the other hand, the respondents, citing various provisions of the Act, have argued that the proposed activity of the Petitioner is against the scheme envisaged in the Act. They have also opposed the proposal of the Petitioner on grounds of proposed sharing methodology of revenue, availability of transmission lines, loss of business to the distribution companies etc.

33. Therefore, following issues arise for our consideration:

- (a) **Issue No. 1: Whether the proposal of the Petitioner is contrary to the provisions of the Act?**
- (b) **Issue No. 2: If no, what should be the methodology of sharing of revenue from such business?**

The above issues have been dealt with in the succeeding paragraphs.

Issue No. 1: Whether the proposal of the Petitioner is contrary to the provisions of the Act?

34. The Respondents have argued that the telecom BTS and ancillary equipment along with battery backup require round-the-clock power supply for uninterrupted transmission of communication signals. In this proposal, the Petitioner has offered to supply power to the telecom BTS and ancillary equipment. The activity of supplying energy to the telecom operator comes under purview of “trading”, which the petitioner is prohibited under law. In view of this, the Respondents have argued that the proposal of the Petitioner is violative of the provisions of first proviso to the Section 38(1) of the Act.

35. The relevant portion of Section 38 is reproduced as under:

“Section 38. (Central Transmission Utility and functions): -- (1) The Central Government may notify any Government company as the Central Transmission Utility:



Provided that the Central Transmission Utility shall not engage in the business of generation of electricity or trading in electricity:

We note from the above provision that CTU is prohibited from engaging in the business of generation or trading in electricity.

36. The word 'generate' is defined in Section 2(29) of the Act, which reads as under:

"Generate means to produce electricity from a generating station for the purpose of giving supply to any premises or enabling a supply to be so given".

The word "generate" necessarily implies that the electricity has to be produced from a generating station for supplying it to any premises or enabling such supply. In the present proposal, we do not find that the Petitioner has any proposal to generate electricity. The Petitioner has merely proposed to tap the isolated earth wire for electricity which otherwise goes waste. Thus, restriction on the Petitioner as regards prohibition from indulging in the activity of generation of electricity is not attracted in the present case.

37. The first proviso to Section 38 puts further embargo on the CTU on engaging in the activity of trading in electricity. Section 2(71) of the Act defines trading as under:

"trading means purchase of electricity for resale thereof and the expression trader shall be construed accordingly".

Trading means purchasing of electricity and such purchase of electricity has to be for the purpose of re-sale. We do not find in the proposal any element of purchasing of electricity from any source and, therefore, the question of its resale does not arise.

38. In view of the foregoing facts, we reject the argument of the Respondents that the proposal of Petitioner to tap isolated earth wire for electricity is in contravention of the provisions of the first proviso to Section 38(1) of the Act. The Petitioner has neither proposed



to generate electricity nor trade in electricity and, therefore, it is not covered by the first proviso to Section 38(1) of the Act.

39. The Respondents have further stated that the proposal of the Respondent involves trading in electricity and is violative of the third proviso to the Section 41 of the Act. Section 41 of the Act is reproduced as under:

“A transmission licensee may, with prior intimation to the Appropriate Commission, engage in any business for optimum utilisation of its assets:

xxxxxxx

Provided also that no transmission licensee shall enter into any contract or otherwise engage in the business of trading in electricity”

Thus, the third proviso to Section 41 of the Act prohibits a transmission licensee from entering into any contract or otherwise from engaging in the business of trading in electricity. However, Section 41 of the Act allows a transmission licensee to engage in any business for optimum utilization of assets with prior intimation to the Commission. Thus, a transmission licensee may engage in any business that involves optimum utilization of its assets, but it cannot engage in the business of trading in electricity.

40. We note that the Petitioner has filed this Petition in order to give prior intimation to the Commission for engaging in utilizing its transmission assets for the purpose of telecommunication business. For this purpose, the Petitioner proposes to allow telecom antennas and other equipment to be installed on its transmission towers. The telecom antennas and other equipment will be provided power (which otherwise goes waste) by tapping isolated earth wire. We have already held above that this proposal does not involve trading in electricity. Thus, in our view, the present proposal of the Petitioner is a proposal for optimal utilization of its assets and since it does not involve trading in electricity, the proposed business does not contravene the provisions of the third proviso to Section 41 of the Act.



41. The Respondents have further submitted that at present, the telecom operators require service connection and have a power demand ranging from 3 kW to 32 kW. These telecom operators are provided with a separate power supply connection by the Distribution Companies and are billed by them under different tariff categories. The Respondents have also submitted that a mere perusal of the provisions of Sections 2(73) (“transmission licensee”) and 2(74) (“transmit”) in contrast to Section 2(17) (“*distribution licensee*”) of the Act makes it evident that only the distribution companies have the right to supply electricity whereas transmission licensee can only transmit i.e. undertake conveyance of electricity. The Respondents have also referred to Section 55 of the Act and submitted that electricity can be supplied only by a distribution licensee and through meter only. In case, the Petitioner wants to facilitate telecom operators by the proposed methodology, it would be required to take a separate power supply connection and also to make a separate metering arrangement.

42. The Respondents have argued that PGCIL will actually be selling electricity to the telecom operators, thereby undertaking the functions of a distribution licensee. Section 12 read with Section 14 of the Act provides that distribution of electricity can be undertaken only with license granted by the Appropriate Commission. The Petitioner does not have a distribution system and distribution licence as required under the Act. The Respondents have further submitted that the definition of “distribution licensee” subsumes within itself the supply business also, as the Act does not envisage a distinction between a “supply licensee” and a “distribution licensee”.

43. On the other hand, the Petitioner has submitted that the provisioning of electricity for functioning of these telecom assets is merely an ancillary and incidental activity which the Petitioner is facilitating by providing electricity by tapping the isolated earth wire, which



otherwise was going waste into the earth. The Petitioner has submitted that as it would not charge for electricity from the telecom operators, there is no need for any meters. It has submitted that it proposes to charge only rental from the telecom operators on the basis of recommendations of KPMG report. It has further submitted that this rental is in line with the industry practice for lending of towers by other infrastructure providers.

44. We have considered the submissions of the Respondents and the Petitioner. As per the present practice, energy is being metered at generating station end as well as at receiving end, which means transmission losses are already being metered. Petitioner is proposing to utilize a part of these transmission losses, which otherwise goes waste. The Petitioner has proposed to do so through suitable technology by insulating the earth wire from tower and tapping it through Power PT. Tapping of isolated earth wire for electricity that would otherwise go waste and providing it to telecom antennas / BTS equipments mounted on the transmission towers of the petitioner cannot be termed as distribution of electricity. In this sense, we do not agree with the arguments of the Respondents that the Petitioner is proposing to indulge in an activity that is the exclusive domain of a distribution licensee.

45. The petitioner proposes to provide space to the telecom operators to install their telecom antenna/ BTS equipment on the transmission tower of the Petitioner. Petitioner is not proposing to sell any power to the telecom operators. Rather, it is proposing to recover the capital expenditure only from the rental of transmission tower. The petitioner is proposing rental charges of the transmission towers as recommended by KPMG, which has been stated to be in line with industry practice for using of towers by other infrastructure providers in India. We agree with the submissions of Petitioner that provisioning of electricity for functioning of these telecom assets is an ancillary and incidental activity which the Petitioner is facilitating by



tapping the isolated earth wire which otherwise was going waste and formed part of the transmission loss.

46. The Petitioner has submitted that there is inherent power loss during transmission of electricity. Two earth wires are provided at the top of 765kV & 400kV transmission lines for lightening protection. These earth wires get continuously charged through capacitive coupling with live conductors. The earth wire serves to shield the transmission line and intercept lighting stroke before it hits the current carrying conductors below and, therefore, forms the necessary part of the transmission system. This energy is continuously discharged through grounding of earth wire on each transmission line towers. Such discharged electricity is not otherwise being used and goes waste into the earth.

47. These losses are due to voltage induced on earth wire and are inevitable as earthing of the transmission line is vital for its protection and proper functioning. This energy cannot be utilized in its raw form and to utilize the same, significant capital expenditure is required to convert it into useful form of energy.

48. The argument of the Respondents to meter the electricity under Section 55 of the Act seems erroneous in view of the nature of energy that is being proposed to be used as described above. Therefore, we hold that the activities proposed by the Petitioner are neither that of distribution licensee nor the proposed supply of power to the telecom antenna/equipment is covered by provisions of Section 55 of the Act related to metering.

49. The Respondents have argued that they are paying for transmission charges as well as transmission losses. They have referred to Regulation 6 and 7 of the 2010 Sharing Regulations that mandates the drawee entities i.e. the beneficiaries to bear the transmission losses. They have, therefore, submitted that only the Discoms have exclusive right over such



power proposed by the petitioner to be utilized for Mobile Telecom Services. On the other hand, the Petitioner has stated that it is utilizing the power that would have otherwise gone waste and sharing a part of the revenue from such usage with the Discoms.

50. In our view, the proposal of the Petitioner can be seen as a proposal to use the wasted energy already being paid by Discoms for some productive purpose. It is in national interest if loss of energy can be reduced and put to some beneficial use. In this case, the Petitioner has proposed to use the otherwise waste energy for running telecom equipment that would provide connectivity to the rural/ sparsely populated areas. Alternatively, huge investments may have to be made to connect these areas. Further, as the Petitioner has proposed to share a part of the revenue earned from this business with the Respondents, it is a win-win situation for all the stake-holders.

51. In view of the foregoing discussions, we are of the view that there is no legal impediment for the Petitioner in undertaking the proposed business and the proposal of the petitioner is not contrary to the provisions of the Act.

52. Some of the respondents have raised the following concerns:

- (a) Implementation of the telecommunication system should not result into outages which disrupt smooth flow of electricity;
- (b) There should not be any hindrance to the transmission services on account of frequent maintenance of mobile telecommunication equipment;
- (c) There should not be any interruption to power supply on this account;
- (d) The telecommunication service provider should properly maintain the proposed equipment installed on EHV towers;



- (e) PGCIL should supervise the installation of telecom antenna and other equipment in order to avoid fatal accidents;
- (f) Tenancy in each tower shall be in such a manner that it does not disturb the normal functioning of system;
- (g) Tenancy is not more than load bearing capacity/ structural strength of tower; and
- (h) The proposed action of Petitioner should not compromise the quality of power being supplied.

53. The Petitioner has submitted that the telecom operators will be allowed to install their telecom antennas and equipment subject to the condition that it does not in any manner affect the core activity of electricity transmission. Petitioner has further stated that the permission to mount the telecom antennas on towers and feeding of power supply from isolated earth wire shall be given after verification of the structural strength and other technical parameters of the transmission towers. The Petitioner will continue to have complete supervision and control over the utilization of the transmission tower/ assets.

54. We observe that the Petitioner has assured due care and proper supervision. Nonetheless, we direct the Petitioner to ensure that all responsibility in respect of the above issues shall rest with the Petitioner.

55. Some of the Respondents have made the following observations:

- (a) The Petitioner has not ascertained the financial viability of the business.
- (b) The Petitioner should ensure proper tapping of induced power in the earth wire of 400 kV line.
- (c) The entire risk of project rests with the Petitioner.
- (d) The cost on installation of system is to be borne by the Petitioner in full.



(e) Expenditure relating to structural changes in towers and foundations should not fall within the ambit of allowed expenses.

56. As regards financial viability of the project, the Petitioner has submitted that preliminary estimated investment is expected to be approximately Rs. 20 lakh/per transmission tower, but total investment would depend upon factors such as number of towers utilized, tower voltage level and tenancy per tower. The Petitioner has stated that the estimated revenue from the proposed business can only be provided by the Petitioner after exploring the market.

57. We are in agreement with the Respondents that the entire risk of the Project rests with the Petitioner and that the Petitioner shall meet the entire expenses towards capital investment on the project from its own resources. No costs would be passed on to the beneficiaries for any activity relating to this business. Further, expenditure relating to structural changes in towers and foundations on account of this project will also be met by the petitioner from its own resources.

58. The Respondents have suggested that to discover the market-based lease price, the Petitioner may follow a tendering process. In our view, the Petitioner may follow a prudent method for discovering the lease price.

59. The Commission vide Record of Proceeding dated 11.1.2018 had constituted a Committee under the chairmanship of Chief (Finance) of CERC with Chief (Engineering) and Chief (Law) as members to look into the technical and financial aspects of the project. Some Respondents have objected that the Committee went beyond its mandate of recommending on "*Technical and Financial Aspects*" and has given recommendations on legal issues as well which is beyond the scope of its Terms of Reference. Respondents have also stated that the



Committee has not heard the answering respondent and has returned a finding on its written Reply.

60. The Commission in foregoing paras has analyzed the legal issues raised by various Respondents and has concluded that the proposal of the petitioner is not contrary to the provisions of the Act. Accordingly, we allow the proposed business of the Petitioner.

Issue No. 2: If no, what should be the methodology of sharing of revenue from such business?

61. The Respondents have argued that the beneficiaries, such as Distribution Licensees, will lose their business to the extent of power is supplied to such telecom antennas by the Petitioner. Some Respondents have submitted that since 100% expenditure incurred on CTU infrastructure is reimbursed through PoC mechanism by Discoms, 100% revenue earned by the Petitioner should be utilized towards reduction of transmission charges payable by the beneficiaries of the assets. Thus, while some respondents have suggested sharing ratio of 100%, others have suggested sharing ratios of 50:50, 60:40 and 80:20. Some Respondents have suggested that the sharing of revenue should be in the same ratio in which PoC charges are being billed on monthly basis. Some Respondents have submitted that the Petitioner should only retain O&M charges, the balance should be fully passed on to the beneficiaries.

62. The Petitioner has proposed to pay the beneficiaries as recommended in the report submitted by KPMG. As per this, the Petitioner will get Return on Equity (RoE) @15.5% on its capital investment. The Petitioner has proposed to pay to the beneficiaries @ Rs.12,000/ location/ year (Approx-13.5% of profit before tax). Respondents have objected to sharing of only about 13.5% of profit before tax with the beneficiaries.



63. The respondents have submitted that the revenue derived from other business of the transmission license have to be shared on a 'proportionate' basis as envisaged under Section 41 of the Act. Accordingly, respondents have prayed to appropriately fix the percentage/ proportion of revenue to be shared with beneficiaries.

64. The Committee constituted vide RoP dated 11.1.2018 has recommended as follows:-

“d. It is felt prudent that in initial stages sharing of revenue after meeting cost may be in the ratio of 50:50 with the beneficiaries. However, the same may be reviewed at a later date (after one year) after ascertaining the financial viability of the business by POWERGRID.”

65. Petitioner vide its affidavit dated 2.3.2019 has submitted its comment on the report. The Petitioner has submitted that State Electricity Regulatory Commissions in their Regulations have also provided the revenue sharing mechanism for Other Business wherein the sharing of revenue varies from 33% to 66% from such Other Business after deduction of all direct and indirect costs. The proposal of the committee to share 50% to beneficiaries after meeting operational cost does not take into account the impact of total funding cost, Income Tax etc. Therefore, it has requested that revenues should be shared in the ratio of 50:50 after deducting all direct and indirect costs.

66. We have considered the submissions of the parties. It is observed that the business proposed by the Petitioner is at a nascent stage and the Petitioner is yet to ascertain the financial viability of the proposed business as the same would largely depend upon various factors such as number of towers utilized, location of tower and business of telecom players in the area (population/ prosperity level).

67. From the financial analysis submitted by the Petitioner, it is noted that the Petitioner would be required to make capital expenditure of approx. Rs. 19.65 lakhs per location to



provide infrastructure viz. platform and power supply inputs. Apart from the above, the Petitioner would also need annual operational expenses of approx. Rs. 1.12 lakhs per location and 8% of its revenue to would be paid to DOT towards licensee fee. Considering the same, the Petitioner has proposed to share Rs. 1000/ month/ location with beneficiaries, which is approx. 20% of PAT.

68. Initially, it may be appropriate to consider the sharing of net revenue in the ratio of 50:50, after excluding all direct and indirect cost. This sharing shall be reviewed by the Commission after completion of one year. The petitioner shall file a petition after completion of one year of implementation of the project. This will enable the petitioner to start the proposed business and the review would enable reworking of the sharing ratio depending on growth of the business in future.

Summary of Decisions:

69. The summary of our decisions is as under:

- (a) The proposed business of the Petitioner does not amount to generation or trading of electricity and thus, it does not contravene the provisions of the Sections 38 or 41 of the Act.
- (b) The proposed activity of the Petitioner is neither an activity covered under the functions of distribution licensee nor is covered under provisions of Section 55 of the Act related to metering.
- (c) The Petitioner may undertake the proposed business under provisions of the Section 41 of the Act, subject to the following:
 - (1) The Petitioner shall ensure that reliability and availability of transmission services are not adversely affected.



- (2) The Petitioner shall supervise proper installation of telecom antenna and other equipment.
 - (3) The Petitioner shall ensure that the telecommunication service provider properly maintains the equipment installed on EHV towers.
 - (4) Entire risk of the Project shall rest with the Petitioner.
 - (5) The Petitioner shall meet entire expenses towards capital investment. No costs shall be passed on to the beneficiaries for any activity relating to the project.
 - (6) Expenditure relating to structural changes in towers and foundations on account of the project shall be met by the Petitioner from its own resources.
- (d) Initially, sharing of revenue shall be in the ratio of 50:50 of the net revenue, after deduction of all direct and indirect costs. However, the same shall be reviewed on completion of one year. The Petitioner shall file a Petition in this regard on completion of one year of implementation of the project.

70. The Petition No. 180/MP/2017 is disposed of in terms of the above.

Sd/-
(I. S. Jha)
Member

Sd/-
(Dr. M. K. Iyer)
Member

Sd/-
(P. K. Pujari)
Chairperson

