CENTRAL ELECTRICITY REGULATORY COMMISSION
NEW DELHI

Petition No. 160/MP/2022

Coram:

Shri Jishnu Barua, Chairperson
Shri I.S.Jha, Member
Shri Arun Goyal, Member
Shri P.K.Singh, Member

Date of Order: 19th January 2024

In the matter of

Petition under Sections 79(1)(c), 79(1)(d) and 79(1)(k) of the Electricity Act, 2003 read with Regulation 4 of the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Business) Regulations, 2020 for giving prior intimation of undertaking the telecommunication business by the Petitioners in compliance with the Commission's letter dated 4.5.2022.

And

In the matter of

1. Khargone Transmission Ltd. (KTL)
   DLF Cyber Park, 9th Floor, B Block, Udyog Vihar Phase III, Sector 20,
   Gurugram – 122008, Haryana
2. Goa Tamnar Transmission Project Limited
   DLF Cyber Park, 9th Floor, B Block, Udyog Vihar Phase III, Sector 20,
   Gurugram – 122008, Haryana
3. Lakadia Vadodara Transmission Project Limited
   DLF Cyber Park, 9th Floor, B Block, Udyog Vihar Phase III, Sector 20,
   Gurugram – 122008, Haryana
4. Mumbai Urja Marg Limited (erstwhile Vapi-II North Lakhimpur Transmission Limited)
   DLF Cyber Park, 9th Floor, B Block, Udyog Vihar Phase III, Sector 20,
   Gurugram – 122008, Haryana …………………………Petitioners

Versus

1. Managing Director, Madhya Pradesh Power Management Company Ltd. (MPPCL)
   Block No. 11, Ground Floor, Shakti Bhawan, Vidyut Nagar, Rampur, Jabalpur
   Madhya Pradesh – 482008.
2. Chairman, Chhattisgarh State Power Distribution Co. Ltd.
   P.O. Sunder Nagar, Dangania, Raipur, Chhattisgarh – 492013
3. Chairman, Gujarat Urja Vikas Nigam Ltd.
   Sardar Patel Vidyut Bhawan, Race Course Road, Vadodara – 390007.
4. Managing Director, Maharashtra State Electricity Distribution Co. Ltd.
   Hongkong Bank Building, 3rd Floor, M.G. Road, Fort, Mumbai – 400001.
5. Chief Engineer (Electrical), Electricity Department,
   Govt. of Goa, Vidyut Bhawan, Panaji, Near Mandvi Hotel, Goa – 403001
6. Secretary (Finance), DNH Power Distribution Corporation Limited,
   Vidyut Bhawan, 66 KV Road, Near Secretariat Amli, Silvassa – 396230
7. Secretary (Finance), Electricity Department, Administration of Daman & Diu
   Plot No. 35, OIDC Complex, Near Fire Station, Somnath, Daman – 396 210
8. Secretary & Commissioner Power, Department of Power,
   Government of Arunachal Pradesh, Vidyut Bhawan,
   Itanagar – 791111, Arunachal Pradesh
9. Managing Director, Assam Electricity Grid Company Limited,
   4th Floor, Bijulee Bhawan, Paltan Bazar,Guwahati – 781001, Assam
10. Chairman, Manipur State Power Distribution Corporation Limited,
    Electricity Complex, Patta No. 1293 under 87(2),
    Khwai Bazar, Keishampat, District-Imphal West – 795001, Manipur
11. Managing Director, Meghalaya Energy Corporation Limited,
    Short Round Road, “Lumjingshai”, Shillong – 793001, Meghalaya
12. Commissioner & Secretary, Department of Power, Government of Nagaland,
    Kohima, Nagaland, A.G. Colony, Kohima, Nagaland – 797 005
13. Commissioner & Secretary, Power and Electricity Department, Government of Mizoram
    Mizoram Secretariat, Annexure-II, Treasury, Square Aizawl, Mizoram
14. Chairman, Tripura State Electricity Corporation Limited,
    Bidyut Bhawan,North Banamalipur, Agartala, Tripura (W) – 799001, Tripura
15. Managing Director, Adani Wind Energy Kutchh One Limited
    (formerly Adani Green Energy MP Limited), Adani House,
    4th Floor, South Wing, Shantigram, S.G. Highway, Ahmedabad, Gujarat – 382421.
16. Managing Director, Adani Green Energy Limited, Adani House, 4th Floor, South Wing,
    Shantigram, S.G. Highway, Ahmedabad, Gujarat – 382421
17. Managing Director, Netra Wind Private Limited,
    B-504, Delphi Building, Orchard Avenue, Sector-5, Hiranandani Gardens, Powai,
    Mumbai, Maharashtra – 400076
18. Managing Director, Central Transmission Utility of India Limited,
    Saudamini, Plot-2, Sector-29, Gurgaon, Haryana – 122001

19. Managing Director, Sterlite Power Transmission Limited,
4th Floor, Godrej Millennium 9 Koregaon Road, Pune- 411001, Maharashtra

20. Managing Director, Sterlite Interlinks Limited
DLF Cyber Park, 9th Floor, B Block, Udyog Vihar Phase III, Sector 20,
Gurugram – 122008, Haryana …………………..Respondents

Parties Present:

Shri M. G. Ramachandran, Sr. Advocate, KTL
Shri Deep Rao Palepu, Advocate, KTL
Shri Arjun Agarwal, Advocate, KTL
Shri Ravi Sharma, Advocate, MPPMCL

ORDER

Khargone Transmission Ltd. (KTL), Goa Tamnar Transmission Project Limited (GTTPL), Lakadia Vadodara Transmission Project Limited (LVTPL) and Mumbai Urja Marg Limited (MUML) (hereinafter referred as "Petitioners") have jointly filed the instant petition for giving prior intimation of undertaking the telecommunication business activity, by the Petitioners in accordance with Regulation 4 of the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilisation of Transmission Assets for Other Business) Regulations, 2020 (hereinafter referred as 'Revenue Sharing Regulations') by tapping the unutilized capacity on spare pairs of optical ground wire (OPGW) containing optical fibers and seeking the approval of revenue sharing with regard to the utilization of spare pairs of optical fiber (OPGW) available on the transmission assets of the Petitioners for data transfer by the Telecommunication Service Providers (TSPs).

2. Petitioners have made the following prayers under the instant Petition:

i. *take on record the prior intimation to the Hon'ble Commission of carrying out of the telecommunication business as described in the instant Petition;*

ii. *direct that the revenue sharing for the proposed business model of the Petitioners shall provisionally be 10% of gross revenue from the telecommunication business in line with Regulation 5(1)(a) of the Revenue Sharing Regulations, subject to market response; and*

iii. *pass such further order or orders as this Hon'ble Commission may deem just and proper in the circumstances of the case.*

Submissions of Petitioners

3. Petitioners have made the following submissions:

(a) Petitioners are Special Purpose Vehicles ("SPVs") companies that are subsidiary/ associate companies of Respondent No. 19 Sterlite Power Transmission Limited (SPTL). KTL is a wholly-owned subsidiary, and the other 3 SPVs are owned 50% by SPTL. Respondent No. 20, Sterlite Interlinks Limited (SIL) is an associate company of SPTL (with SPTL owning 49% equity) and will be a wholly-owned subsidiary of SPTL w.e.f. tentatively by the end of June 2022. Thus, the Petitioners, SIL and SPTL will belong to the same group.

(b) The Petitioners intend to optimise the utilization of the unutilized capacity on spare pairs of optical fiber ("OPGW") of the existing OPGW fiber assets owned by the respective Petitioners for services to be provided to interested entities eligible under telecom regulatory framework ("Entities"), including Infrastructure Providers Category-I ("IP-I") registration holding entities ("IP-I Entities"), that are engaged in the business of providing/ utilising telecommunication infrastructure.

(c) The Petitioners do not hold any approvals/ permissions from DoT/ Telecom Regulatory Authority of India ("TRAI") for carrying out licensed telecom business-related activities, especially that of an IP-I Entity, nor do they intend to apply for the same. The Petitioners are only interested in continuing their respective power transmission businesses while simultaneously maximizing their assets' utilization (in line with the dispensation under Section 41 of the Act) to provide services by the use of unutilised OPGW assets.

(d) The DoT's revised Guidelines for Registration of IP-I Entities dated 22.12.2021 ("IP-I Guidelines") grant IP-I registrations for entities desirous of providing dark fibers, RoW, duct space, towers on "lease, rent out or sale basis" to the telecom licensees in "a non-discriminatory manner" (Guidelines 8 and 10). As per the standard IP-I registration certificate issued by the DoT, these IP-I Entities' scope is limited to establishing and maintaining the aforesaid assets for the purpose of "grant on lease/ rent/ sale basis only to licensed Telecom Service Providers licensed under Section 4 of Indian Telegraph Act, 1885, on mutually agreed terms and conditions" in a "non-discriminatory manner". Thus, IP-I Entities are not allowed to provide telecom services to the end user/ customer directly. Respondent No. 20, Sterlite Interlinks Limited, is an IP-I Entity.

(e) The Petitioners are filing the instant Petition, in terms of Regulation 4(1) Revenue Sharing Regulations, to give prior intimation to this Commission for undertaking the activity of providing services to the Entities by utilising the spare OPGW capacity. Further, under Regulation 5(1)(a) of the Revenue Sharing Regulations, the Petitioners will be required to share 10% of gross revenue from its telecommunication business with the LTTCs.

(f) In the proposed business model, the services of the Petitioners by use of the transmission assets for telecom businesses would be undertaken and provided to Entities (IP-I Entities) who shall be separate companies undertaking telecom businesses in accordance with the rules and guidelines issued by DoT from time to time. Under the proposed model:

i. The Entities shall execute an agreement with the Petitioners for the identification of spare OPGW capacity and the subsequent enjoyment and optimum utilization to expand telecom networks throughout the country.

ii. The Petitioners shall have the powers to intervene, seek withdrawal or cease utilisation of assets if the utilization of said assets for telecom purposes adversely affects the transmission business, power flow or grid security in any manner or the Petitioners' find any deficiency in the standards of operating and maintaining the assets by Entities at any time during the term of the agreement.

iii. No "encumbrance" of any nature is being on the transmission assets under the proposed model.

iv. The proposed activities shall be carried out to provide services to Entities for a pre-decided, specific, and limited purpose of utilising the unutilised OPGW capacity by using and maintaining the identified assets and further providing it for use by CSPs. Further, a draft agreement to be executed between the Petitioners and Entities will inter alia incorporate provisions for putting in place relevant safety measures and to ensure that there is no risk to the transmission system on account of the use of transmission assets for the telecommunication business.

(g) Following unequivocal undertakings by the Petitioners may be taken on record:

i. The ultimate ownership and control of the involved transmission assets shall continue to be with the Petitioners themselves. As such, no encumbrance whatsoever shall be created on any transmission assets. Only services by way of a contract are being provided by the Petitioners to the Entities;

ii. The utilisation of transmission assets for the telecommunication business will not adversely affect Petitioners' performance as transmission licensees or the performance of involved transmission assets;

iii. The Respondent LTTCs shall be indemnified against any potential losses or damage on account of the proposed business;

iv. All efforts as per standard industry practice are and will be undertaken in carrying out the telecommunication business, such that there is no adverse impact on the inter-state transmission of electricity by the transmission licensee;

v. The provisions of the relevant Central and State laws, rules and regulations are and will be duly complied with, including under the Act, the Grid Standards specified by the Central Electricity Authority and the CERC (Indian Electricity Grid Code) Regulations, 2010 (hereinafter "Grid Code, 2010"); and

vi. Any other direction(s) that may be issued to it in relation to maintaining the reliability and security of the grid by the Central Electricity Authority, this Commission, Regional Load Despatch Centers, or any other authorised entity are and will be duly complied with.

(h) Under Regulations 7 and 8 of the Revenue Sharing Regulations read with Section 41 of the Act, the Petitioners hereby undertake to comply with the following requirements:

i. Petitioners shall maintain separate books of accounts for their respective transmission businesses and the telecommunication business proposed herein.

ii. Petitioners shall not encumber, directly or indirectly, their transmission assets, in whatsoever nature, in the course of their dealings with the Entities.

iii. Petitioners shall not add any cost or revenue related to the proposed business to the cost or revenue of the transmission business.

iv. Petitioners take full responsibility to ensure that the transmission assets utilised for the telecommunication business shall not, in any manner, be compromised so as to adversely affect any activities of inter-state transmission of electricity.

(i) While firming up its present revenue sharing proposal, the Petitioners have considered the following relevant factors:

i. The Petitioners are not offering the full range of services envisaged under the term “telecommunication business” as per the Revenue Sharing Regulations. The Petitioners are anticipating partial revenues in comparison to the revenues generated by licensees that do offer the complete range of services covered by the term “telecommunication business” as envisaged under the Revenue Sharing Regulations.

ii. This Commission has already determined 10% of gross revenue as the apt revenue sharing proportion for “telecommunication business” under Regulation 5(1)(a) of the Revenue Sharing Regulations. The proposed business of the Petitioners is the ‘telecommunication’ business in terms of the Revenue Sharing Regulations.

iii. The Petitioners’ projects are Tariff Based Competitive Bidding (TBCB) projects, where the revenue from all business models has already been considered to arrive at the lowest tariff.

iv. Especially given the nature of the proposed model, the market potential is dynamic and dependent upon various factors, including (but not limited to) the number of telecom operators, the requirements of the Entities, the launch of new technologies, local data residency rules affecting demand from enterprise customers, *et al*. Accordingly, it is not possible to predict the precise market potential or estimate minimum revenues at this stage. It can be done after carrying out the proposed business for a certain period of time, i.e., after two business year cycles.

v. The Petitioners have already incurred certain additional capital expenditures in relation to the installation of OPGW, *et al.* to earn additional revenue from the proposed business

(j) In view of the above, the sharing of 10% of Petitioners’ gross revenue earned by undertaking the telecommunication business is acceptable to the Petitioners.

(k) The details required under Regulation 4(2) of the Revenue Sharing Regulations are provided hereinbelow:

i. **Nature of other business:** In the proposed business, the services will be offered (without creating any right, title or interest of any proprietary nature) in the form of the use of the unutilized capacity on spare pairs of OPGW fiber of the existing OPGW fiber assets owned by the Petitioners.

ii. **Transmission assets utilized or proposed to be utilized for other business**: List of Petitioners' assets which can be made available to the Entities for utilisation to provide services relating to telecommunication over a period of time are as under:

List of Assets with Route Length

SPV	Line Name	No. of OPGW pairs installed/ To be installed	Route Length in Kms
Khargone Transmission Limited (KTL)	Khandwa - Dhule	24	191
	Khandwa - Indore	24	90
	LILO at Khandwa	24	7
	Khargone - Khandwa	24	25
	Sub-Total		313
Goa Tamnar Transmission Projects Limited (GTTPL)	Xeldom-Xeldom	24	20
	Xeldom-Narendra	24	94
	Xeldom-Mapusa	24	56
	Tamnar-Raigarh	24	69
	Sub-Total		238
Mumbai Urja Marg Limited (MUML) (formerly Vapi II-North Lakhimpur Transmission Limited)	Part-A: LILO at Banaskantha	24	17.3
	Part-B: LILO at Vapi	24	6.1
	Part-B: Vapi-II – Sayali 220kV D/C line	24	22.2
	Part-C: Padghe (PG) – Kharghar 400kV D/C (quad) line	48	70.01
	Part-C: LILO of Padghe (PG) – Ghatkopar 400kV S/C line at Navi Mumbai GIS	48	19
	Part-C: LILO of Apta – Kalwa/Taloja 220kV D/C line (i.e. Apta – Kalwa and Apta Taloja 220kV lines) at Navi Mumbai (PG)	48	2.9
	Part-D: Pare HEP (NEEPCO) (from near LILO point)– North Lakhimpur (AEGCL) 132 kV D/C line	24	29.6
	Part-D: LILO of one circuit of Pare HEP – North Lakhimpur (AEGCL) 132kV D/C line (with ACSR Zebra) at Nirjuli (POWERGRID) substation	24	15.7
	Sub-Total		183
Lakadia Vadodara Transmission Project Limited (LVTPL)	Lakadia-Vadodara 765kV D/C Line	24	334.2
	Sub-Total	24	334.2

Note: GTTPL, MUML &LVTPL projects are work in progress. For those projects, OPGW proposed to be installed is mentioned.

iii. **Cost of such transmission assets utilized or proposed to be utilized:** The tentative cost of transmission assets as derived from one of the Petitioner SPVs is as under:

Cost of Transmission Assets

Sr. No.	Cost Head	Costs related to OPGW (per km)
1	**Capex (in INR Cr)	0.04
2	Opex (Annual per tower/KM INR)	6000

Note:

• The above figures are generally common for all SPVs having 765kV and 400kV systems respectively.

• **OPGW Capex includes Material supply, stringing, apportioned tower cost and overheads.

• NERSS also has 132 KV line, Capex for which can be assumed as 40% of Capex for 400 KV line.

• OPGW Opex has been assumed - since the O&M of the OPGW fiber is bundled with the overall O&M of the transmission lines (which includes power conductor, transmission towers and associated accessories).

• It is assumed that Opex would be largely similar across SPVs

iv. **Revenue derived or estimated to be derived from other business:** Revenue derived/ estimated to be derived on a per unit basis is INR 1800 per fiber per km per annum, for fibers utilized for providing services to Entitles. Revenue on a gross basis can be estimated only after a certain period of carrying out the business, i.e., after two business year cycles. Out of the OPGW cables being made available to prospective Entities for utilisation, it is expected that only 2 to 4 pairs of OPGW cables, that also for certain distances (and not for the entire OPGW route length), would be utilised in the initial two years, as per market information of intra-state transmission licensees. Thereafter, the Petitioners expect the demand to rise gradually once route details of fiber cables, along with a number of fiber pairs are made available to the Entities and their corresponding CSPs, who shall then be able to include this in their network planning activities and create demand. The book of accounts of Petitioners shall keep separate accounts for revenue earned from the Entities/ CSPs for allowing the use of their spare OPGW capacity.

v. **Underlying assumptions and justifications for estimated revenue:** Petitioners have submitted the same information as submitted against “Cost of such transmission assets utilized or proposed to be utilized’.

vi. **Impact, if any, of use of transmission assets for other business on inter-State transmission of electricity:** No impact is foreseen. Petitioners have unequivocally undertaken to implement all reasonable precautions to ensure that the use of transmission assets for other businesses does not affect the transmission operation.

vii. **Any other details required by the Commission:** The information, along with all the relevant details as required under the provisions of the Revenue Sharing Regulations have been placed herein for the consideration of this Commission. The Petitioners further undertake to provide all such information as required by this Commission from time to time.

(l) In view of the involvement of more than one company in the electricity transmission activities, it has been considered appropriate to involve Sterlite Interlinks Limited (SIL) (an associate company of the Petitioners) to undertake the coordination and management of the telecommunication business's dealings. SIL will act as an interface between the Petitioners and the entities interested in availing the telecommunication infrastructure services being offered by the Petitioners. This will facilitate coordinated activities in the telecommunication business. However, it is clearly represented that the telecommunication business, by optimum utilization of the transmission assets of Petitioners, shall belong to the respective transmission licensee only, i.e., Petitioners in the captioned matter. Thus, all activities undertaken by SIL in regard to such optimum utilization of the electricity transmission assets of Petitioners shall, for all intent and purposes, be for and on behalf of respective Petitioners only. The gross revenue derived by such optimum utilization of the transmission assets of Petitioners shall be duly and entirely accounted for in Petitioners itself.

(m) The KTL and GTTPL had earlier approached this Commission through Respondent No. 19, Sterlite Power Transmission Limited (SPTL) (earlier Sterlite Power Grid Ventures Limited) in Petition No. 544/MP/2020 seeking approval for its proposed other business. This Commission had dismissed the said Petition on two primary grounds: (a) maintainability; and (b) perceived creation of "encumbrance" on transmission assets. While filing the present Petition, the Petitioners have taken due notice of the Commission's reservations as regards the earlier Petition. The Petitioners have addressed the said aspects in the following manner:

i. **Maintainability:** With a view to avoiding multiplicity of litigations, Petitioners had earlier approached this Commission through their common parent company (SPTL) along with their respective NoCs for filing of litigation by SPTL. In the present Petition, the Petitioners have directly approached this Commission.

ii. **Perceived Creation of Encumbrance:** Significantly, the present scheme is different and does not involve any encumbrance of the asset of the transmission licensee. In Petition No. 544/MP/2020, the Petitioner therein had inter alia indicated a 'limited licensing' of vacant spaces on transmission towers, duct spaces, vacant spaces on transmission substation and RoW. None of these activities are proposed to be undertaken in the captioned matter, nor is there any licensing/ leasing involved herein. In contrast, only the contractual right to avail services from the Petitioners by utilisation of the unutilized capacity on spare pairs of OPGW fiber (of Petitioners' existing OPGW fiber assets) is being utilized by the Petitioners for providing telecommunication infrastructure services.

Hearing on 05.7.2022

4. The instant Petition was admitted by the Commission vide hearing dated 05.07.2022. The relevant extracts of the RoP of hearing dated 05.07.2022 are as under:

"3. Learned counsel for the Respondent No.1, MPPMCL objected to the maintainability of the Petition. Learned counsel submitted that the similar Petition filed by the parent company of the four Petitioners/licensees herein, on their behalf, bearing No. 544/MP/2020 has already been rejected by the Commission vide order dated 18.1.2022. Accordingly, the present Petition now filed by such licensees is hit by the principle of res-judicata, in particular explanation 6 to Section 11 of the Code of Civil Procedure, 1908 and by the doctrine of waiver. In this regard, learned counsel placed reliance on the judgment of Hon'ble Supreme Court in the case of Ram Gobinda v. Bhakta bala [AIR 1971 SC 664]. Learned counsel pointed out that the order dated 18.1.2022 was passed by the coram of four members whereas the present case is being heard by the coram of only three members. Learned counsel sought liberty to file its reply on the maintainability of the Petition.

4. In response, learned senior counsel for the Petitioners submitted that the Petition No. 544/MP/2020 was not dismissed on the merits but on two primary grounds of (i) maintainability and (ii) perceived creation of encumbrance of transmission assets. Learned senior counsel submitted that while filing the present Petition, the Petitioners have taken due notice of the Commission's reservations as regards the earlier Petition inasmuch as the Petitioners have directly approached this Commission instead of through their common parent company and in the present proposal of the Petitioners as such no licensing/leasing of vacant space of transmission towers, duct spaces, vacant spaces on transmission sub-station and RoW is involved. Learned senior counsel submitted that the present proposal of the Petitioners is completely different from the earlier one and is squarely covered under the Sharing of Revenue Regulations. Learned senior counsel further requested that the notice may be issued in the matter and the objections with regard to the maintainability of the Petition may be taken up along with the merits of the case.

5. After hearing the learned senior counsel for the Petitioners and the learned counsel for the Respondent, MPPMCL, the Commission ordered as under:

(a) Admit. Issue notice to the Respondents.

(b) The Petitioner to serve copy of the Petition on the Respondents including CTUIL and the Respondents and CTUIL to file their reply within four weeks after serving copy of the same to the Petitioner, who may file its rejoinder within three weeks thereafter.

(c) The Respondent, MPPMCL is directed to file a combined reply on the maintainability as well as on merits of the case.

(d) The Petitioner to submit the following details/information on affidavit within two weeks with copy to the Respondents:

(i) Proposed business model and detailed modalities for carrying out of telecommunication business.

(ii) Whether the proposed business shall be undertaken by a separate SPV / transmission licensee owing the transmission lines.

(iii) Estimated revenue to be derived from proposed business.

(iv) Details of OPGW available with the Petitioners vis-à-vis spare capacity proposed to be utilized for other business.

(v) Specify the revenue sharing mechanism for the business model proposed by the petitioner.

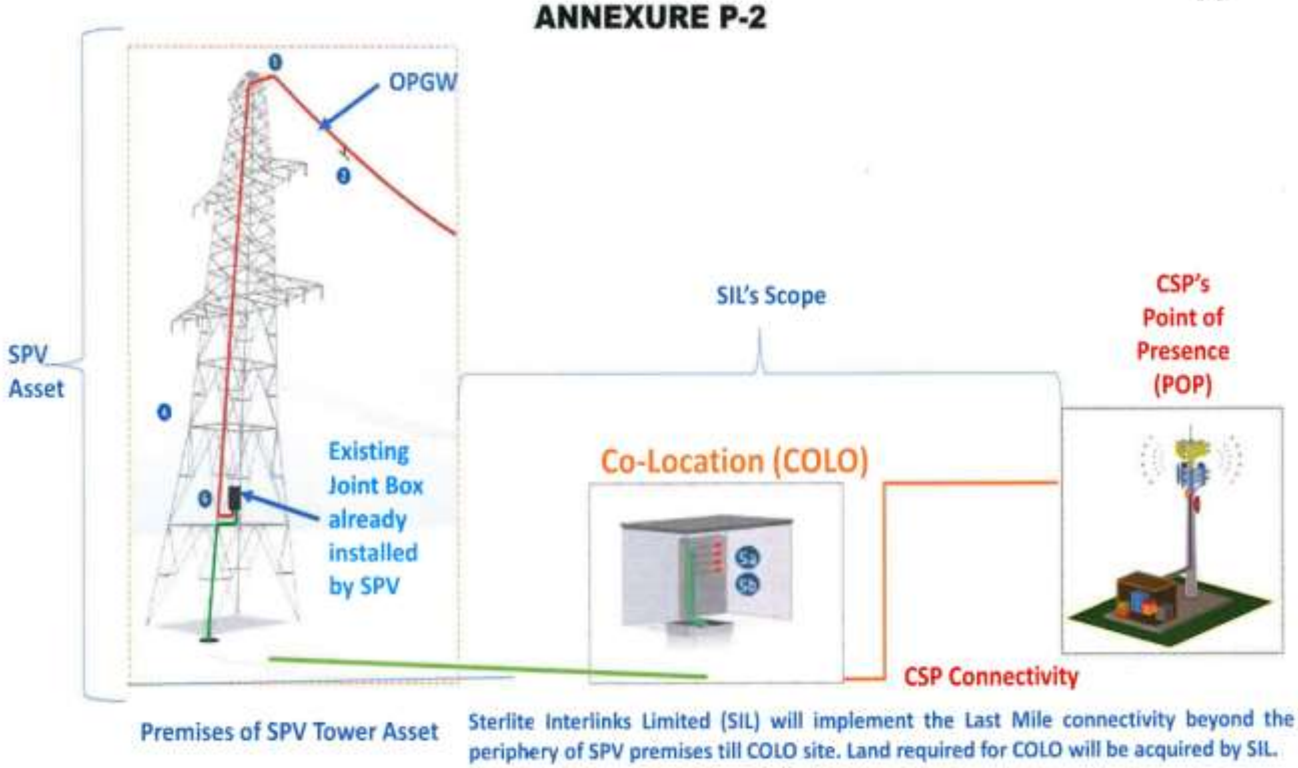
(e) Parties to comply with the above directions within the specified timeline and no extension of time shall be granted."

Submission of Petitioners

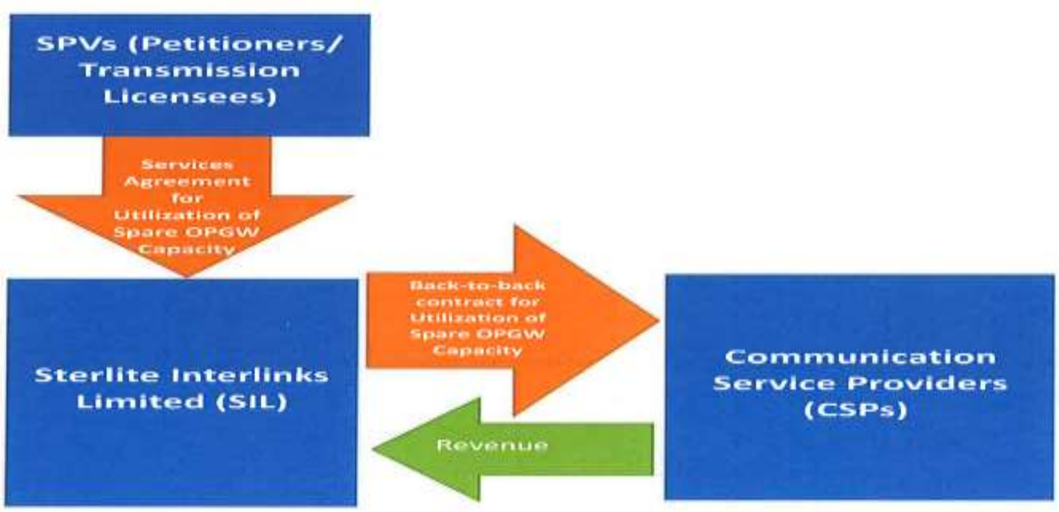
5. The Petitioners vide affidavit dated 05.08.2022 have reiterated the submission made under the main petition and have made following submissions:

(a) Sterlite Interlinks Limited (SIL) will act as an aggregator and interface between the co-Petitioners and the entities interested in availing the telecommunication infrastructure services being offered by the co-Petitioners (such as various CSPs). Given its experience and expertise in the telecom business, Sterlite Interlinks Limited will perform activities such as marketing to, negotiating with and executing agreements with interested CSPs on behalf of individual co-Petitioners. This will facilitate coordinated activities in the telecommunication business. The operation, maintenance *et al*. of the OPGW fibers shall be undertaken only by the respective Petitioners and shall not be outsourced to SIL or any other agency. Petitioners have also submitted a flowchart depicting the Petitioners' business model and a schematic diagram summarizing the roles of co-Petitioners, Sterlite Interlinks Limited and CSPs, which are as under:

ANNEXURE P-2



FLOWCHART DEPICTING THE SALIENT FEATURES OF THE BUSINESS MODEL



(b) **Roles of the Co-**Petitioners**, Sterlite Interlinks Limited and CSPs**

b) In the captioned Petition, the co-Petitioners had estimated a rate of INR 1,800 per fiber pair per km per annum for OPGW fibers utilized for providing services to Entities. The same was based on the Bharat Broadband Network Limited's ("BBNL") then prevalent lease rate for Dark Fiber OFC. When the Petition was filed, BBNL's leasing rates for dark fiber were INR 2250/- per fiber pair per km per annum at the time of filing the

Petition. However, after the filing of the Petition, the market conditions have evolved. The co-Petitioners have come across tenders floated by various State Transmission Utilities ("STUs"), including West Bengal Electricity Transmission Company Limited ("WBSETCL"), i.e., at the rate of INR 13,800/- per fiber pair per km per annum (including O&M but excluding GST). Meanwhile, w.e.f. 15.07.2022, the BBNL rates have also been revised to INR 6000/- per fiber paid per km per annum (Phase II). Thus, based on the above WBSETCL rate, due to the nascent nature of the business, the fiber rates on OPGW have now been assumed at the estimated price of INR 8,000 per fiber pair per km per annum.

c) It is estimated from the market analysis that, the potential of utilization of OPGW is dynamic and dependent upon various factors including, demand and supply mechanisms (market growth), number of competitors (telecom operators in market) at any given time, launch of new technologies like 5G & WIFI-6, data localization rules affecting demand from Over-the-top media services and Data Centers. Following is an estimation of the revenue expected by Petitioner No. 1, Khargone Transmission Limited over the next few years:

Sr. No.	Revenue Estimates	Units	Figures
1	Fibers Pair Kms available for utilization (Route Length of Fibers x No of Fibers)	FP Kms	6573
2	Fibers expected to get utilized (market potential – in %) in 3 years from start of Sales by SIL	%	50%
3	Fibers expected to get utilized (market potential – Number of Fibers Kms) in 3 years	FP Kms	3130
4	Revenue per Fibers pair per km per annum	INR	8000
5	Estimated gross revenue per annum of OPGW lease from 3rd year onwards (Assumption with 50% capacity Utilization)	INR	2.6 Cr.
6	Estimated gross revenue per annum of OPGW lease from 6th year onwards (Assumption with 70% capacity Utilization)	INR	3.7 Cr.
7	Estimated gross revenue per annum of OPGW lease from 10th year onwards (Assumption with 90% capacity Utilization)	INR	4.7 Cr.

d) With respect to estimated revenue, there was an inadvertent clerical error in filing of information in respect of 'Underlying assumptions and justification for estimated revenue' and further there has now been a change in the underlying assumption resulting in a change in the estimated rate from INR 1,800 per fiber pair per km per annum to INR 8,000 per fiber pair per km per annum. Therefore, in order to rectify the same, following are submitted for the Underlying assumptions and justification for estimated revenue:

i. The revenue assumptions are based on the rates mentioned in the tenders floated by various State Transmission Utilities (STUs), including the West Bengal Electricity Transmission Company Limited (WBSETCL), i.e. at the rate of INR 13,800/- per pair per km per annum (including O&M but excluding GST).

ii. Thus, based on the above WBSETCL rate, due to the nascent nature of the business, the fiber rates on OPGW have been assumed at the estimated price of INR 8,000/- per fiber pair per km per annum.

e) The revenues are envisaged to flow in the following manner:

i. Step-1: The CSPs shall pay SIL commercially negotiated charges in lieu of utilization of the OPGW under an agreement to be executed between SIL and the CSPs at rates based on prevalent market conditions.

ii. Step-2: Ten Per cent (10%) of the gross revenue received by SIL from utilisation of spare assets of each co-Petitioner shall be distributed to each co-Petitioner's respective LTTCs in compliance with Regulation 5(1)(a) of the Revenue Sharing Regulations.

f) Since this is a nascent business, the co-Petitioners crave liberty to approach this Commission, should there be a need to modify the revenue sharing mechanism based on actual market conditions.

Submission of Respondent MPPMCL

6. Respondent No.1, MPPMCL, vide affidavit dated 10.08.2022, has submitted as follows:

a) Respondent No.1 raised objections on the maintainability of the Petition on the following grounds:

i. Present Petitioner(s) have already waived their rights in favour of Sterlite Power Grid Ventures Ltd in Petition no. 544/MP/2020 to file Petition claiming the relief as sought in the Present Petition. Since the claims of the Petitioner(s) in the present Petition, which were identical to Petition No. 544/MP/2020, had already been rejected by the CERC vide order dated 18.01.2022 therefore, the rights to file the same claim in the same forum or in appellate forums had been extinguished by Petitioners. It is further trite law that once a Party relinquishes/gives away his rights to file Petition/statutory claims or for some private benefits, the same relief or claim cannot be claimed by a party in a different suit/Petition because the same will be barred by a Doctrine of Waiver.

ii. The doctrine of waiver, as defined by Black's Law Dictionary, is the intentional or voluntary relinquishment of a known right. Waiver is when a person intentionally and with full knowledge gives away his right to exercise or chooses not to exercise that right which the person would otherwise possess. Waiving a right means that a person can no longer assert that right and is precluded from challenging the constitutionality of that law for the benefit of which the right is waived. The Respondent has placed its reliance for the Doctrine of the waiver on the Supreme Court order in KALPRAJ DHARAMSHI & Anr case (2021) 10 SCC 401

iii. The contents of Petition No 544/MP/2020 and present Petition i.e. 160/MP/2022 and inference can easily be drawn that contents of Petition No 544/MP/2020 and present Petition, i.e. 160/MP/2022 and issues in both the Petitions are either identical or incidentally identical. Since Petition no. 544/MP/2020 was dismissed while passing the speaking and detailed order dated 18.01.2022; hence, the present Petition is barred by PRINCIPLES OF RES-JUDICATA / CONSTRUCTIVE RES-JUDICATA. The Supreme Court in Ram Gobinda v. Bhaktabala, AIR 1971 SC 664, has observed that the test for res judicata is the identity of title in the two litigations and not the identity of the subject matter involved in the two cases.

iv. The order dated 18.01.2022 in Petition No 544/MP/2020 was passed by 4 four-member bench comprising of the Chairperson and Technical Member, Finance Member and Member of Law after evaluating all aspects of the proposed model given by the Petitioners. Therefore, the said order had the stronger binding force of Law, and the small bench of this commission can't overrule it. The Supreme Court, in catena of its judgements had held that precedential value of the judgements of courts are necessary to ensure the certainty and consistency in judicial decisions, and enable an organic development of law, besides providing assurance to the individual as to the consequence of transaction forming part of his daily affairs.

v. Any financial loss that occurred to Sterlite Link may be transferred on the KTL & and other petitioners on the grounds of the doctrine of Group companies, and subsequently, it will be passed on upon the LTTCs, which is not warranted, and LTTCs are not consenting to it. Indemnifying all LTTCs from any financial and legal implication on account of other businesses is required before granting the nod for such kind of business as the CERC would not have the jurisdiction to control the Telecom License.

vi. Petitioners has given the two contradictory statements and undertaking as under:

“10. I say that the proposed business will be undertaken by respective Petitioner(s), namely, the concerned transmission licenses owning the transmission lines i.e. Petitioner themselves”

However, in paragraph 8 of the affidavit dated 05.08.2022, Petitioners has stated as under:

“*8. “In view of the involvement of more than one company in electricity transmission activities, it has been considered appropriate to involve Respondent No. 20. Sterlite Interlinks Limited (a group company of the co-Petitioners) holding IP-1 registration to undertake the coordination and management of the telecommunication business’s dealings. Sterlite Interlinks Limited will act as an aggregator and interface between the co-Petitioners and the entities interested in availing the telecommunication infrastructure services being offered by co-Petitioners (such as various CSPs). Thus, Sterlite Interlinks Limited and co-Petitioners will enter into separate services agreement for the provisions of services for utilization of unutilized OPGW capacity. The Operation and The operation, maintenance et al. of the OPGW fibers shall be undertaken only by the respective Petitioners and shall not be outsourced to either Respondent No. 20 or any other agency.*

9. Given its experience and expertise in the telecom business, Sterlite Interlinks Limited will perform activities such as marketing to, negotiating with and executing agreements with interested CSPs on behalf of individual co-Petitioners. This will facilitate coordinated activities in the telecommunication business. In this manner, Sterlite Interlinks Limited shall be acting as an aggregator.”

……………………………………………………

11………..

Thus, <u>the activities undertaken by Sterlite Interlinks Limited with regard to such optimum utilization of the electricity transmission assets of Petitioners shall be for and on behalf of respective Petitioners only</u>.

From the contradicting deposition made by the co-Petitioners in their affidavit dated 05.08.2022, it is clear that co-Petitioners vis a vis Respondent No 20 jointly and severally tried to misguide and mislead the CERC. The co-Petitioners are neither willing to get into the business of Telecom business themselves nor have they the expertise to do the telecom business, and vide the present Petition, co-Petitioners are only trying to outsource the telecom business to a third party who is far beyond the control & jurisdiction of the CERC and will not be accountable for any lapses & faults.

vii. Petitioners has failed to give estimated Revenue to be derived from the Business.

viii. Petitioner has stated that only 10% of revenue earned by Respondent No.20 Sterlite Interlinks Limited will be shared with beneficiaries. However, the co-Petitioners proposed revenue sharing model does not fall under the definition of Regulation 5(a) of Revenue Sharing Regulations. Since co-Petitioners are not directly associated with the telecom business and third party, namely SIL, who is holding the IP-1 license. Therefore, co-Petitioners proposed revenue-sharing model may fall (without prejudice to the submissions and objections placed herein above) under the definition of Regulation 5(b) of Revenue Sharing Regulations.

In view of the aforesaid, if it is assumed that co-Petitioners be allowed to take part in the proposed business model, in such situation Petitioners be directed to share at least 50% of revenue earned by the Respondent No. 20.

b) Respondent No.1 has submitted the followings on the Merits :

i. Creation of Third-Party interest on the Transmission Assets by Petitioners:

a) Section 41 of the Act entitles only a transmission licensee to engage in any business for optimum utilization of its assets but does not allow other entities to use its transmission lines. The Respondent No. 20, Sterlite Interlinks Limited, who is holding an IP-1 license and going to do the Telecom business on behalf of Petitioners is not a “transmission licensee”.

b) In terms of Revenue Sharing Regulations, only transmission licensees can intimate or seek approval of the other businesses from the Commission; however, Petitioners i.e. KTL, GPTL, NERSS and GTTPL (co-Petitioners) in the present Petition are conveying the message to the Commission that its group subsidiary Company i.e. Respondent No. 20 hold the IP-1 License has the expertise in Telecom Business and a team of experts to handle Telecom Business. Therefore, the Commission should grant the approval to Respondent No.20 to engage in engage in the telecom business for optimum utilization of their Transmission assets on their behalf, which is legally impermissible in our submissions.

c) Section 17(3) of the Electricity Act, 2003 provides that no licensee shall at any time assign its license or transfer its utility or any part thereof by sale, lease, exchange or otherwise without the prior approval of the appropriate Commission. Therefore, assigning or authorizing Respondent No.20 to undertake the Telecom Business on behalf of Petitioners means a certain type of transfer of some part of 'utilities' which includes but is not limited to the use of its OPGW fibers of its Petitioner Companies to some other person.

ii. Issues of compromising the SCADA system vis a vis Grid Security leading to National Security: CEA's Standing Committee meeting on Communication System Planning in the Power Sector dated 09.03.2021 has categorically discussed this point that communication network of Transmission System, which is predominantly used for the purpose of SCADA and internal communication do not have the firewall and other security system in place and cyber security on the SCADA and internal communication which took place either though OPGW cables or PLCC cable are not proper and weak. Therefore, if the OPGW fibers are being leased out or authorized use of the OPGW fibers by a third party will pose a great cyber security threat. Since Respondent no. 20 Sterlite Interlinks Ltd is a third party and the CERC would not have any control over it and if in case of any cyber breach on the SCADA and internal communication took place due to fault or negligence of Respondent No.20, Petitioner will not be accountable for it.

iii. OPGW leasing/use/authorization of use can't be done in Isolation: to use the OPGW fibers for Telecom Business requires any other associated activities such as: Installation of Antenas, Battery Back-up, Power supply, Underline or over earth line for connectivity between towers, Regular maintenance of equipment associated with OPGW fibers Transmission for Telecom Business and Frequent Right of Ways (RoW) issues etc. However, the Petitioners have failed to provide a detailed business model.

iv. No effective control after the granting of approval over IP-I Entities: Respondent No. 20 IP-I entity is neither the Transmission License nor any other licensees falls within the regulatory control of the CERC. In case an IP-I Entity violate any norms of Revenue Sharing Regulations vis-a-vis the Electricity Act, 2003, the CERC would not be able to have effective control over it. In view of the aforesaid, even if the CERC proposes to grant the approval for telecom business, the same should only be granted to Transmission Licensees.

Submission of Respondent CTUIL

7. CTUIL vide affidavit dated 22.08.2022 has submitted as follows:

a) The transmission assets for which the Petitioners are proposing utilisation to provide services relating to telecommunication, were awarded under the Tariff Based Competitive Bidding ("TBCB") scheme. Further, the installation of OPGW, associated hardware along with terminal equipment was also in the scope of the Petitioners/ TSP for all the lines mentioned to the Petition. The said lines are part of the Inter-state Transmission System.

b) There is a requirement of 6 fibers for Unified Load Despatch Centre (ULDC) data & voice communication to ensure grid monitoring of the ISTS Transmission System up to respective RLDCs. Accordingly, the Petitioners have to ensure the availability of at least 6 fibers out of 24 fibers and 12 fibers out of 48 fibers (LILO portion) in the OPGW for ULDC data & voice communication. Further, the Petitioners shall be obligated to ensure the availability of the required fibers in healthy and working conditions as per the provisions of CERC (Communication System for inter-State transmission of electricity) Regulations, 2017 (hereinafter "Communication Regulations"). Petitioners should also ensure that there shall be no impact on ISTS grid operability and stability by their proposed business model for carrying out telecommunication business.

c) With respect to the specific contention of the Petitioners that they have incurred certain additional capital expenditure in relation to the installation of OPGW, it is submitted that the installation of the OPGW had to be carried out by the Petitioners as per the scope of the RFP and no additional OPGW has been installed.

Submission of Petitioners

8. In response to the CTUIL submission, Petitioner, vide affidavit dated 20.09.2022, has filed the rejoinder as follows:

a) The Petitioners unequivocally assure the availability of the OPGW for ULDC data & voice communication. Further, the Petitioner under the captioned Petition have already submitted and again reiterated that the Petitioners will ensure that there is no adverse impact on ISTS grid operability or ULDC data & voice communication on account of the Petitioners' proposed telecommunication business.

b) It is clarified that no additional OPGW has been installed by the Petitioners beyond what was required in the TSA thus far, and no additional expenditure has been incurred by the Petitioners on this account so far. However, once telecommunication business is commenced, Sterlite Interlinks Limited may incur certain additional expenditures to enable the last mile connectivity of Communication Service Providers with transmission assets beyond the periphery of the said transmission assets. For this purpose, SIL will be required to acquire suitable land for implementing Last Mile connectivity to the Co-Location ("COLO") site and installing the necessary equipment for COLO. Further, any works required on the Petitioners' premises would be carried out by the respective Petitioners themselves on a deposit works basis (all expenses whereof shall be borne by SIL). Any impression to the contrary in the captioned Petition may be considered an inadvertent error and may kindly be ignored.

9. In response to the Respondent MPPMCL submissions, Petitioner vide affidavit dated 20.09.2022 has filed the rejoinder as follows:

a) The Commission did not enter into an adjudication of the merits of Petition No. 544/MP/2020 since it was concerned with the form in which the petitioner had framed the petition. This Commission had held that Sterlite Power Grid Ventures Private Limited could not act in a representative capacity or discharge any agency function on behalf of the transmission licensees in order to seek approval from this Commission for revenue sharing by carrying out an 'other business'. It was on this principal basis that the Petitioner's relief was rejected in petition No. 544/MP/2020. In this context, for MPPMCL to take a ground of res judicata is misleading and most unfortunate.

b) The present scheme is entirely different and does not involve any 'encumbrance' whatsoever over the assets of the transmission licensee Petitioners. In Petition No. 544/MP/2020, the petitioner therein had inter alia indicated a 'limited licensing' of vacant spaces on transmission towers, duct spaces, vacant spaces on transmission substation and Right of Way ("RoW"). None of these activities are proposed to be undertaken in the captioned matter, nor is there any licensing/ leasing involved herein. In contrast, only services by way of utilization of the unutilized capacity on spare pairs of OPGW fiber of the ‘existing’ OPGW fiber assets owned, operated and maintained by the respective Petitioners, is being proposed by the Petitioners in the captioned Petition.

c) There is no waiver in the present case and the following submissions may be considered in this regard:

i. It is settled law that waiver of any known legally enforceable right ought to be clear, unequivocal, conscious and with the full knowledge of the consequences. [Shashikala Devi vs. Central Bank of India, (2014) 16 SCC 260, para. 17]

ii. In Petition No. 544/MP/2020, two of the co-Petitioners herein had merely given No Objection Certificates (“NoCs”) in form of respective Board Resolutions in favour of their parent company, SPTL (Respondent No. 19 herein) to file the said Petition. There was no waiver or relinquishment of rights or waiver of any kind. This was purely for administrative convenience and to avoid a multiplicity of petitions.

iii. There is no question of any waiver by Petitioner Nos. 3 and 4 herein – which were not even parties in Petition No. 544/MP/2020.

d) The principles of res-judicata and constructive res-judicata are not applicable to the captioned Petition since there is a clear change in the Petitioners, a new cause of action, a modified business model and different relief is sought herein vis-à-vis those in Petition No. 544/MP/2020.

e) MPPMCL has sought to wrongly import the principle of Benches as applicable to the higher judiciary (i.e., the Supreme Court of India and the various High Courts) and to apply them to this Commission. Since there is no concept of Benches, there is no question of one Order of this Commission holding binding “stronger binding force of law” as submitted by MPPMCL. Moreover, all case laws cited by MPPMCL are in the context of Benches in the higher judiciary and are clearly inapplicable to the present case.

f) SIL, along with Petitioner, shall transparently maintain separate accounts for each co-Petitioner and further provide the financial and other relevant details depicting gross revenue received from CSPs in respect of the telecommunication business related to the utilization of Petitioners’ electricity transmission assets and submit it before the Commission in accordance with the specific directions issued by the Commissions and/ or as provided under the Revenue Sharing Regulations. Thus, no losses can or will be unilaterally passed on to the Petitioners or their LTTCs by Sterlite Interlinks Limited as baselessly alleged by MPPMCL.

g) Petitioners have not made any contradictory statements either in their Affidavit dated 05.08.2022 or the captioned Petition.

h) In line with the provision under Regulation 5(a) of the Revenue Sharing Regulations, the Petitioners have prayed for the confirmation of the revenue share of 10% of the gross revenue from the Telecommunication Business to be shared with the LTTCs. Therefore, MPPMCL's unsubstantiated claim for 50% revenue sharing ought to be outrightly rejected.

i) Petitioners will not be creating any prohibited third-party rights in favour of Sterlite Interlinks Limited/ CSPs. All activities and works associated with the OPGW assets shall be undertaken by the co-Petitioners on a deposit works basis and shall at all times retain primary responsibility and control over all such assets.

j) It is settled law that scurrilous claims, as made by the MPPMCL, that the proposed business model will lead to a great cyber security threat and compromise grid security, ought not to be entertained by a court. MPPMCL is indirectly questioning the very basis of the Revenue Sharing Regulations and Section 41 of the Act in the present proceedings. Such objections cannot be maintained in the instant proceedings, and MPPMCL must be viewed to have permanently waived all such objections since it has not challenged the Revenue Sharing Regulations. If MPPMCL's submissions are accepted, no transmission licensee can ever undertake any other business in accordance with the Revenue Sharing Regulations and Section 41 of the Act. No such objections were raised by MPPMCL when the Revenue Sharing Regulations were being promulgated.

k) The Petitioners will continue to fall under the jurisdiction of this Commission and will be accountable to this Commission for any adverse impact on inter-State transmission of electricity and grid security. The Petitioners have unequivocally indemnified LTTCs against any potential losses or damage on account of the proposed business. Moreover, telecom is in itself a heavily regulated sector. Thus, the Telecom Regulatory Authority of India will be adequately regulating SIL (in its capacity as an IP-I licensee) and CSPs insofar as the provision of telecommunication services to consumers is concerned.

Hearing on 25.11.2022

10. The relevant extract of the RoP of hearing dated 25.11.2022 are as under:

"3. After hearing the learned senior counsel for the Petitioners and the learned counsel for the Respondent, the Commission prima facie expressed its apprehensions with regard to nature of activities to be undertaken by the Petitioners. In response, learned senior counsel for the Petitioners vehemently submitted that providing of unutilized OPGW capacity (for transmission or reception of signs, signals etc.) for the purpose of rendering services to facilitate existing telecommunication business of IP-1 entities squarely qualifies as 'telecommunication business' as defined in the Telecom Regulatory Authority of India Act, 1997. Learned senior counsel sought liberty to file a brief note to address the various concerns of the Commission in this regard.

4. Accordingly, the Commission permitted the Petitioners to file their brief written note addressing the following aspects on affidavit within three weeks:

a) How the proposed business model of the Petitioners falls under Section 41 of the Electricity Act, 2003 as the Section envisages other business by the transmission licensee?

b) How the proposed business model of the Petitioners falls under the category of "Telecommunication Business" as per the Central Electricity Regulatory Commission (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Business) Regulations, 2020?

c) How the gross revenue earned from such business in a given financial year shall be shared with the Long-Term Customers, the Petitioners and the Respondent No. 20. A clear Illustration of the same may be provided?

d) How the issue of cyber threat in the proposed business model of the utilization of the unutilized capacity of OPGW shall be controlled by the Petitioners.

e) Impact, if any, of use of transmission assets for other business on inter-State transmission of electricity;

5. The Petitioners is further directed to submit the following information on affidavit within three weeks:

(a) Cost of such transmission assets proposed to be utilized for the proposed business. The estimated revenue from assets to be utilized in the proposed business as required under Regulation 4(2) of CERC (Sharing of Revenue Derived from Utilization of Transmission Assets for Other Business) Regulations, 2020.

(b) Copy of the draft agreement of the Petitioners with the Sterlite Interlinks Limited ('SIL')."

Submission of Petitioner

11. Petitioners vide affidavit dated 10.02.2023 have reiterated the submission made under the main petition, earlier affidavit and have made the following submissions:

a) The co-Petitioners/ transmission licensee who are undertaking the transmission business will be the entity which will undertake the telecommunication business. Sterlite Interlinks Limited will not be undertaking that part of the telecommunication business, which is by use of the transmission assets, though Sterlite Interlinks Limited will be undertaking various other activities outside the area of the utilisation of the transmission assets of the co-Petitioners. Section 41 of the Act contemplates a transmission licensee engaging in ‘any business’ other than the transmission of electricity for the optimum utilization of its assets. The other conditions provided for in Section 41 of the Act, namely, there is no encumbrance created, and such business does not amount to the trading of electricity, are duly satisfied. In the instant case, the co-Petitioners are not engaging in the trading of electricity, are not creating any encumbrance on their transmission assets, and are not allowing the activities on the transmission asset to be carried out by any person other than the transmission licensee itself.

b) The definition of ‘Telecommunication Business’ under Regulation 2(7) of the Revenue Sharing Regulations is “any business of telecommunication services by utilizing transmission assets”, where Telecommunication Services has the same meaning as provided under Section 2(1)(k) of the TRAI Act, 1997. The definition of ‘Telecommunication Services’ under Section 2(1)(k) of the TRAI Act, 1997 includes services of data transfer – which the co-Petitioners herein are proposing to undertake in collaboration with their sister concern Respondent No. 20, SIL. The access rights for spare OPGW fibers available with the existing transmission networks shall be given to SIL and SIL shall further undertake to construct an underground OPGW network for connecting the required OPGW cable with each other (last-mile OPGW network or inter-connecting OPGW network) to create and offer comprehensive long-distance data transfer solutions to Communication Service Providers.

c) Since the parties to the present Petition are proposing to undertake a data transfer services business (telecom service) which is defined as a ‘Telecommunication Business’ under the Revenue Sharing Regulations, hence, Regulation 5(1)(a) of the Revenue Sharing Regulations would apply – which prescribes that a revenue share of 10% of the gross revenue from the ‘telecommunication business’ will be shared with the LTTCs. In line with the said provision, the Petitioners have accordingly prayed for the confirmation of the revenue share of 10% of the gross revenue from the ‘telecommunication business’ to be shared with the LTTCs.

d) Without prejudice to the above, as an alternative, in the event this Commission is not considering the matter as ‘telecommunication business’, as an alternative, this Commission may approve the business model as ‘business other than telecommunication business' or 'other business' as provided under the Regulation 5(1)(b) of the Revenue Sharing Regulations. The business to be approved by this Commission in this eventuality would be the business of permitting co-Petitioner to grant access to spare OPGW cables to Sterlite Interlinks Limited for offering long-distance data transfer solutions to Communication Service Providers.

e) For the purposes of projecting revenues, it is assumed that Sterlite Interlinks Limited is offering data transfer services to Communication Service Providers at INR 8000/- per km. Then, it is proposed that INR 800/- per km is given to each co-Petitioner. Accordingly, if 200 kms of spare OPGW cable available on KTL's transmission asset is used by Sterlite Interlinks Limited for creating a total of 1000 km OPGW network, then INR 800 x 200 kms = INR 1,60,000/- shall be paid to KTL which shall be reduced by KTL from the transmission and wheeling charges payable by its LTTCs.

f) In the proposed business model, Sterlite Interlinks limited intends to provide services pertaining to the utilisation of the passive infrastructure/ spare optical fiber core/ pair to various Communication Service Providers, which are completely distinct from the OPGW fibers used by the Petitioners for own transmission-related communication and SCADA-connectivity purposes. Since the end-to-end-media, i.e., the OPGW for transmission business vis-à-vis the OPGW for 'Telecommunication Business' is physically separate, there appears to be no potential for a cyber threat on account of carrying on the business proposed herein. Further, the co-Petitioners are proposing to provide data transfer services in collaboration with SIL to various large Communication Service Providers (such as Airtel, Jio or Vodafone Idea), who are also required to comply with the applicable law governing data transfer services. The said Communication Service Providers are, in any case, duty-bound to be compliant with the applicable law, including their cyber safety mandate. The Petitioners have already provided the various undertakings in the captioned Petition.

g) Cost of Transmission Assets - The tentative cost of transmission assets as derived from one of the Petitioner SPVs is as under:

Sr No	Cost Head	Costs related to OPGW (per km)
1	**Capex** (in INR Cr)	0.035
2	**Opex** (Annual per tower/KM INR)	6000

Note:

• The above figures are generally common for all SPVs having 765kV and 400kV systems, respectively.

• **OPGW Capex includes Material supply, stringing, apportioned tower cost and overheads.

• NERSS also has a 132 KV line, capex for which can be assumed as 40% of capex for the 400 KV line.

• OPGW Opex has been assumed - since the O&M of the OPGW fiber is bundled with the overall O&M of the transmission lines (which includes power conductor, transmission towers and associated accessories).

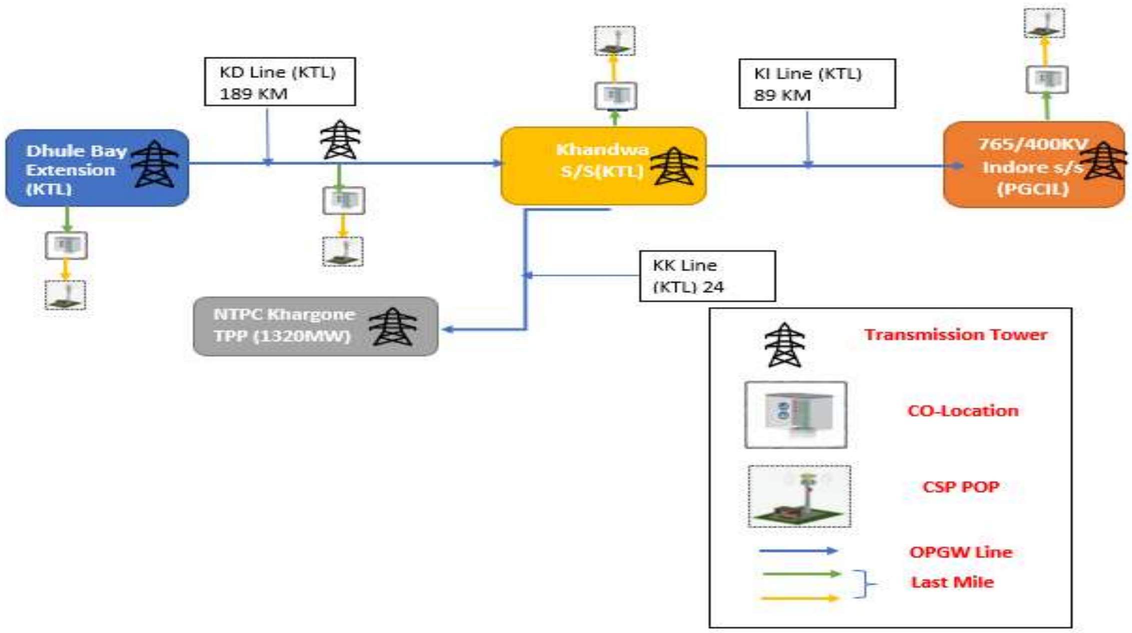
• It is assumed that opex would be largely similar across SPVs

h) Cost of associated facilities and services to be undertaken by Sterlite Interlinks Limited - Typically, a co-location facility needs to be created at every ~90 kilometers to provide a secure space with requisite power and cooling to host the CSPs' equipment. The said co-location facilities will be built, owned and managed solely by Sterlite Interlinks Limited. Additionally, last mile infrastructure (LM) within a distance of 500 meters to 2 kilometers from the co-location facility will also be created on the underground fibers by Sterlite Interlinks Limited to connect the co-location facility to the CSPs' Point of Presence. The estimated capital expenditure required by Sterlite Interlinks Limited towards setting up the co-location and last mile connectivity for Petitioner No. 1, Khargone Transmission Limited's assets is tabulated hereunder:

Sl. No.	Capex Expenditure	Time period	Asset Details
1	INR 95 Lakhs	20 years	Co-location in every 90 Kms. 3 co-location spots proposed in Petitioner No. 1's Line (313 Kms). Calculation: INR 30 Lakhs x 3 co-location spots being set up + INR 5 Lakhs per km for Last Mile connectivity
2	INR 24 Lakhs	7th Year	Refurbishment cost of INR 8 Lakhs/ colocation in the 7th Year (for Battery Bank/ DG/ SMPS etc.) Calculation: INR 8 Lakhs x 3 co-location spots being set up
3	INR 24 Lakhs	14th Year	Refurbishment cost of INR 8 Lakhs/ colocation in the 14th Year (for Battery Bank/ DG/ SMPS etc.) Calculation: INR 8 Lakhs x 3 co-location spots being set up

i) Additionally, it may be necessary for Sterlite Interlinks Limited to construct additional last-mile OPGW fibers to interconnect different transmission licensees, it is estimated that an expense of INR 5 lakhs/ km will be incurred. Such last-mile cables will be constructed underground in order to enable a contiguous OPGW network across the un-monetized assets of multiple transmission licensees so as to offer an aggregated OPGW solution to CSPs.

j) The following line diagram illustrates the manner in which KTL's OPGW fibers will be utilized for the proposed telecommunication business:



k) The revenue estimated to be derived on a per unit basis is INR 8,000 per fibers pair per km per annum for OPGW fibers actually utilized for providing services to Communication Service Providers. The actual gross revenue earned will depend on actual uptake of the services by the Communication Service Providers. In this regard, reference may illustratively be had to the following rates being used by other State Transmission Utilities/ PSUs:

STU/PSU	Fiber Type	Annual Leasing rate/FP/KM
BBNL	UG	6000
OPTCL	OPGW	7000
KSEB	OPGW	6000
AEGCL		12500
UPPTCL		12500

Based on an average of the aforesaid, revenue estimated to be derived on a per unit basis has been calculated as INR 8,000 per fibers pair per km per annum for OPGW fibers.

l) The estimates of projected revenues in the present submissions are based on market analysis and data collected from the recent Transco bids. It is expected that only 2 to 4 pairs of OPGW fibers, also for certain distances (and not for entire OPGW route length), would be utilized in the initial two years, as per market information of the intra-state transmission licensees. It is estimated from the market analysis that the potential utilization of OPGW is dynamic and dependent upon various factors, including demand and supply mechanisms (market growth), number of competitors (telecom operators in the market) at any given time, the launch of new technologies like 5G & WIFI-6, data localization rules affecting demand from Over-the-top media services and Data Centers. The detailed working of the estimation of revenue expected and anticipated revenue expenses is set out below:

S. No.	Description	Assumptions	INR	% of Rev	Remarks
			REVENUE PROJECTIONS		
1	Annual Recurring Revenue per pair per km per tenant	Average Rates for STU OPGW fiber Leased in by PGCIL	8,000.0		Sterlite Interlinks Limited has considered average based on the recent fiber leasing prices paid to several STUs. Further, some variations in prices would be seen depending upon the location and business potential of particular route
2	Tenancy per km (no. of fiber pairs assumed to be monetised)	Tenancy of Maharashtra Transmission Communication Infrastructure Limited (MTCIL) (Best performing STU based OPGW Fiberco in India)	3.5		Tenancy is the number of fiber pairs estimated to be monetised for the 'other business'. Here, we have assumed an average of 3.5 fiber pairs will be taken up in the market. 3 distinct telecom companies and 1/2 pair (1 fiber strand) would be an Internet Service Provider. This is based the avg number of tenants utilising MTCIL's network.
3	Co-location Revenue per km per annum	Based on MTCIL Colocation revenue per tenant	3,450.5		SIL is offering services to several customers through the co-location facilities created and the prices are projected here on the basis of contracts to be executed between SIL and service user.
4	Co-location tenancy per km per annum	This represents the no of parties who would availing services from each co-location	2.6		Based on possible business opportunities estimated by SIL on the proposed 3 colos in the KTL asset.
5	**Revenue per Route Km**	**(A)**	**36,971.2**	**100%**	
			OPERATING EXPENSES PROJECTIONS		
6	Service delivery cost per km. for the Last Mile connections.	As per actual costs experienced with MTCIL	878.0	2%	Computed @50% of MTCIL FY23 cost actuals - MTCIL cost
7	O&M Cost of Colocations per km		4,591.1	12%	Computed for 3 COLOS @ MTCIL FY-23 cost actuals --- Power, Maint, rental, DG set fuel. Max. constitutes power cost - Commercial Consumer.
8	Manpower Cost per km (Sales and Service, last mile connectivity, Delivery & Assurance) per annum	Incremental cost for on-roll man power required for sales and Service delivery.	10,223.6	28%	32L p.a. as manpower cost for 3 employees for each asset (eg. SIL would require 3 resources for undertaking sales, service delivery and asset O&M in respect of the KTL asset)
9	Depreciation cost on capex		2,591.5		Refer to Annexure P-2 for detailed working of depreciation.

S. No.	Description	Assumptions	INR	% of Rev	Remarks
10	**Total Operating cost per km per annum**	**(B)**	**18,284.2**	**49%**	
11	Revenue Sharing Proportion @ 10% of Gross Revenue with LTTCs	(C)	3,697.1	10%	
12	**Surplus after deducting operating costs (per Km per annum)**	**(D) = (A) – (B)-(C)**	**14,989.9**	**41%**	
14	Interest cost on capex (net of tax)	Interest on Capex @11% **(E)**	4,340.6	12%	Interest is calculated @11% on the NPV of capex spent over next 15 years - which tantamount to 12% of gross revenue
15	Net Surplus before tax	**(F)**	10,649.3	29%	
16	Less: Taxes @30%	30% on Profit Before Tax (G)	3,194.8		
17	**Projected Net Revenue after taxes per km (H)= (F)-(G)**		**7,454.5**	**20%**	

m) Petitioners have submitted a copy of the draft agreement to be signed between Petitioners and Sterlite Interlinks Limited ('SIL').

<u>Hearing on 14.02.2023</u>

12. During the hearing on 14.02.2023, the learned counsel for the Petitioners pointed out that in the affidavit dated 09.02.2023, filed by the Petitioner, the Petitioner have, without prejudice, have as an alternative also stated that in the event the Commission is not considering the matter as 'telecommunication', the Commission may approve the proposed business model as 'business other than telecommunication business' or 'other business' as provided under Regulation 5(1)(b) of the Revenue Sharing Regulations and in such case, the business to be approved by the Commission would be the business of permitting the Petitioners to grant access of spare OPGW cables to Sterlite Interlinks Limited (SIL) for offering long-distance data transfer solutions to communication service providers.

13. The Commission noted that the Petitioners have not provided the various details/aspects, including the derived/estimated revenue considering its proposed business model as above. Accordingly, the Commission vide RoP of the hearing on 14.02.2023 directed the Petitioners to provide the following details /information:

a. What will be the revenue derived or estimated to be derived by the Petitioners from the proposed telecommunication business in a given financial year, and how the same shall be shared by the Petitioners with the Long-Term Customers with clear illustrations along with underlying assumptions and justifications for estimated revenue.

b. How the Petitioners themselves are entering into the telecommunication business as per the Revenue Sharing Regulations. The detailed business model along with roles and responsibilities of each of the entities may be submitted.

c. The Petitioners have proposed that if the proposed business is not considered as 'telecommunication business', the same may be considered as 'business other than telecommunication business' or 'other business' as provided under the Regulation 5(1)(b) of the Revenue Sharing Regulations. In such a case, the Petitioners to submit the following:

    i. Proposed new business model and detailed modalities for carrying out 'other business'.

    ii. Whether the proposed business shall be undertaken by a separate SPV or the transmission licensees owning the transmission lines.

    iii. Estimated revenue to be derived from proposed other business along with underlying assumptions and justifications for estimated revenue.

    iv. Specify revenue sharing mechanism for the 'other business' model proposed by the Petitioners.

<u>Submission of Petitioners</u>

14. Petitioners, vide affidavit dated 06.03.2023, have reiterated the submission made under the main petition, earlier affidavit and have made the following submissions:

a) The revenue estimated to be earned by Sterlite Interlinks Limited for providing bundled data transfer solutions is estimated to be INR 36,971.2/- per Route km for the entire asset of Petitioner No. 1, Khargone Transmission Limited. The actual revenue earned will be the basis of OPGW fibers actually utilized for providing services to CSPs. Such bundled data transfer solutions would inter alia include the provision of spare OPGW capacity, co-location infrastructure and last mile connectivity. Under this scenario, it is proposed that 10% of the gross revenue (i.e., INR 3,697.1/- per Route km) earned by Sterlite Interlinks Limited by providing bundled data transfer solutions on co-Petitioners' assets would be shared with the co-Petitioners. One of the key assumptions for the aforesaid detailed working is that the revenue estimated to be derived on a per unit basis is INR 8,000 per fibers pair per km per annum by Sterlite Interlinks Limited for providing bundled data transfer solutions to CSPs using spare capacity on co-Petitioners' OPGW fibers. In this regard, reference may be had to the following rates being used by other State Transmission Utilities/ PSUs:

STU/PSU	Fiber Type	Annual Leasing rate/FP/KM
BBNL	UG	6000
OPTCL	OPGW	7000
KSEB	OPGW	6000
TS Transco	OPGW	12500
AP Transco	OPGW	12500

Based on the average of the aforesaid, revenue estimated to be derived on a per unit basis has been calculated as INR 8,000 per fibers pair per km per annum for OPGW fibers actually utilized for providing services to CSPs.

b) The revenue on a gross basis can be estimated with some certainty after understanding the market response and demand mechanism of OPGW fibers in areas where transmission assets of the co-Petitioners traverse. The CSPs (such as Airtel, Jio or Vodafone Idea) shall pay Sterlite Interlinks Limited commercially negotiated charges in lieu of bundle data transfer solutions, including utilization of the spare OPGW capacity, under an agreement to be executed between Sterlite Interlinks Limited and the CSPs at rates based on the prevalent market conditions. The amount from the CSPs shall be received in separate bank accounts and thereafter shall be accounted separately for each co-Petitioner in the account books of Sterlite Interlinks Limited. Ten Per cent (10%) of the gross revenue received by Sterlite Interlinks Limited from the utilisation of spare assets of each co-Petitioner shall be remitted to each co-Petitioner's respective LTTCs in compliance with Regulation 5(1)(a) of the Revenue Sharing Regulations.

c) Role of Co-Petitioners - The proposed 'telecommunication business' will be undertaken by the respective co-Petitioners. Thus, the co-Petitioners' role in the proposed 'telecommunication business' shall be to provide Sterlite Interlinks Limited with the right to access of the spare OPGW capacity on their pre-existing OPGW fibers. Further, the existing OPGW will continue to be operated and maintained by the respective co-Petitioners.

d) Role of Sterlite Interlinks Limited - Sterlite Interlinks Limited (i.e., Respondent No. 20) is an aggregator and will act as an interface between the Petitioners and the entities interested in availing the telecommunication infrastructure services being offered by the Petitioners (such as various CSPs).

e) For undertaking the above business, each co-Petitioner will execute an agreement with Sterlite Interlinks Limited independently for utilizing their spare capacity of OPGW fibers and constructing the requisite last mile network to connect the spare OPGW network of co-Petitioners with each other (where it is required).

If the proposed business is not considered a 'telecommunication business', the same may be considered as 'business other than telecommunication business' or 'other business' as provided under Regulation 5(1)(b) of the Revenue Sharing Regulations.

f) Proposed new business model and detailed modalities for carrying out 'other business'-

i. In the proposed business, the data transfer services will be offered in the form of access rights over the unutilized capacity on spare pairs of OPGW fibers of the existing OPGW fibers assets owned by the co-Petitioners. In such a scenario, the services being offered by the co-Petitioners will be merely access rights to spare OPGW capacity on a standalone basis and will not include co-location infrastructure and last mile connectivity up to the CSPs Point of Presence. Thus, these services will not be bundled/ aggregated services and the person availing the services will be required to arrange co-location infrastructure and last mile connectivity on their own.

ii. Under the 'other business', it is proposed that the same Draft Agreement between each co-Petitioner and Sterlite Interlinks Limited, placed on record before this Commission vide Affidavit dated 10.02.2023, shall be executed on the same contractual terms and conditions.

g) The proposed ‘other business’ will be undertaken by the respective co-Petitioners, namely, the concerned transmission licensees owning the transmission lines. No other separate Special Purpose Vehicle(s) will be incorporated for carrying out the ‘other business’.

h) The revenue potential for granting access and utilization rights on their spare OPGW fibers to the CSPs is approximately INR 1060 per fiber pair/ km/ annum. The detailed working for the aforesaid estimated revenue for Petitioner No. 1, Khargone Transmission Limited’s (KTL) assets, based on the responses received from two leading Internet Service Providers (ISPs), namely Netsol Private Limited (Vortex) and Gazon Communications India Limited (Gazon), in Maharashtra who are keen to expand their footprint to Madhya Pradesh, is as under:

KTL Revenue Estimate for OPGW Access Rights in Petition No. 160/MP/2022

KTL OPGW network in Rkms	313
KTL Capex per OPGW km (In Lacs)	3.5
OPGW network Capex (In Crs)	10.96
Useful life (in years)	25
Cost of Capital - %	9.81%
Project COD	13.12.2021

Year of Recovery	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11
Opex recovery	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08
Annual Depreciation - Rs Crs	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44	0.44
Min. exp. Return on Capital - Rs Crs	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07
Annual Recovery Charge - Rs Crs	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59	1.59
Annual Recovery charge per km - In Rs	50,735	50,735	50,735	50,735	50,735	50,735	50,735	50,735	50,735	50,735	50,735
Annual Recovery charge per pair (24P) - In Rs	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114	2,114
Discount applied for Non marketable routes connecting Tier 3 cities	50%										
Effective Recovery charge per pair per annum - In Rs	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057	1,057

Weighted Average Cost of Capital:	9.81%
Cost of Debt	9.40%
Tax rate	25%
Weightage of debt	75%
Cost of Equity	18.1%
Weightage of Equity	25%

KTL Revenue Estimate for OPGW Access Rights in Petition No. 160/MP/2022

		Refurbishment Cost Estimate after 25 Yrs
KTL OPGW network in Rkms	313	
KTL Capex per OPGW km (In Lacs)	3.5	7
OPGW network Capex (In Crs)	10.96	21.91
Useful life (In years)	25	
Cost of Capital - %	9.81%	
Project COD	13.12.2021	

Year of Recovery	**Y25**	**Y26**	**Y27**	**Y28**	**Y29**	**Y30**	**Y31**	**Y32**	**Y33**		
Opex recovery	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08	0.08		
Annual Depreciation - Rs Crs	0.44	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88		
Min. exp. Return on Capital - Rs Crs	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07	1.07		
Annual Recovery Charge - Rs Crs	1.59	2.03	2.03	2.03	2.03	2.03	2.03	2.03	2.03		
Annual Recovery charge per km - In Rs	50,735	64,735	64,735	64,735	64,735	64,735	64,735	64,735	64,735		
Annual Recovery charge per pair (24P) - In Rs	2,114	2,697	2,697	2,697	2,697	2,697	2,697	2,697	2,697	2,255	
Discount applied for Non marketable routes connecting Tier 3 cities										53%	
Effective Recovery charge per pair per annum - In Rs	1,057	1,349	1,349	1,349	1,349	1,349	1,349	1,349	1,349	**1,060**	**Average Projected Recovery per fiber pair/ annum over 33 Years**

Weighted Average Cost of Capital:	9.81%
Cost of Debt	9.40%
Tax rate	25%
Weightage of debt	75%
Cost of Equity	18.1%
Weightage of Equity	25%

i) Further, the rate charged by the co-Petitioners from its potential consumers of the ‘other business’ will be on an arm’s length basis and will be derived through a fair market assessment or in terms of this Commission’s directions as may be deemed appropriate.

j) Revenue sharing mechanism for the ‘other business’ model proposed by the Petitioners - Without prejudice and in the alternative to all other arguments advanced by the Petitioners, if the Commission is of the view that the business model depicted in the Petition is not a ‘Telecommunication Business’ for the purposes of the Revenue Sharing Regulations, this Commission may fix a revenue sharing proportion which it finds appropriate in the facts and circumstances of this case in accordance with Regulation 5(1)(b) of the Revenue Sharing Regulations. In this regard, it is stated that the Statement of Reasons of the Revenue Sharing Regulations records the distribution utilities comments as requesting up to a 70% revenue share, which the co-Petitioners are ready and willing to share out of the gross revenue received by each co-Petitioner on account of the ‘other business’ with their respective LTTCs.

k) Since the co-Petitioners are offering access rights to spare OPGW capacity on a standalone basis, the LTTCs’ revenue share will be determined as a percentage of respective co-Petitioners' gross revenue from the 'other business'. For instance, if SIL were to avail such standalone data transfer services, the revenue share of LTTCs will be determined as a percentage of co-Petitioners' gross revenue from the 'other business', and not as a percentage of Sterlite Interlinks Limited's gross revenue.

Hearing on 25.04.2023

15. Following are the relevant extract of the RoP of hearing dated 25.04.2023:

"Learned senior counsel for the Petitioners submitted that the present Petition has been filed for giving prior intimation to the Commission for undertaking the activity of providing and facilitating data transfer solutions in collaboration with the Respondent No. 20, Sterlite Interlinks Limited to various Communication Service Providers by tapping the unutilized capacity on spare pairs of optical ground wire containing optical fibers (OPGW). Learned senior counsel submitted that in response to certain queries/observations of the Commission vide Record of Proceedings for the hearing dated 14.2.2023, the Petitioners have already filed their submissions on 6.3.2023. Learned senior counsel further submitted as under:

a) If the proposed business model by the Petitioners is considered as 'Telecommunication Business', each co-Petitioner shall receive 10% of gross revenue from SIL which would be in turn remitted to their respective LTTCs. Under this, the revenue estimated to be earned by SIL for providing bundled data transfer solution is estimated to be Rs. 36,971.2 per route per km for entire assets of Petitioner No.1, KTL. The actual revenue will be earned based on the OPGW fibers actually utilized for providing services to CSPs.

b) The above working is on the basis of estimated revenue of Rs. 8,000 per fiber pair per km per annum to SIL for providing bundled data transfer solutions, to CSPs using spare capacity on co-Petitioners' OPGW fibers. The above per unit estimated revenue is for bundled data transfer solutions which presupposes the development of sufficient co-location infrastructure and last mile connectivity upto the CSP's Point of Presence

c) If the proposed business model is considered as the 'other business' i.e. business of merely granting access & utilization of spare OGPW cables, , in such case, the services being offered by the co-Petitioners will be merely access rights to spare OPGW capacity on a standalone basis and will not include co-location infrastructure and last mile connectivity to CSPs Point of Presence.

d) As per co-Petitioners' bona fide best estimate, the revenue potential for granting access and utilization of rights on their spare OPGW fibers to CSPs is approximately Rs.1060 per fiber pair/km/annum. A detailed working for the aforesaid estimated revenue for Petitioner No.1's asset is also furnished. The estimated is based on the responses received from the two leading ISPs in Maharashtra who are keen to expand their footprint to Madhya Pradesh.

e) As per the Revenue Sharing Regulations, the revenue to be shared with LTTCs for the 'other business' is to be determined by the Commission on case-to-case basis and accordingly, the Commission may fix a revenue sharing proportion which it finds appropriate.

2. In response to the specific observation of the Commission regarding revenue potential of Rs.1060 per fiber pair/km/annum appears to be on lower side, learned senior counsel for the Petitioners submitted that the above rates are for merely access rights to spare OPGW capacity and does not include the co-location infrastructure & last mile connectivity up to CSPs

Point of Presence, etc. as required for bundled/aggregated services, which the person availing the services will required to arrange their own.

3. Learned counsel for the Respondent No.1, MPPMCL submitted that the proposed business model of the Petitioners cannot be considered as 'telecommunication business' and has to be considered as 'other business' – i.e. merely providing access to their spare OGPW cables. Further, for the latter model, as such the Respondent has no objection, However, the revenue proposed to be earned appears to be on the lower side and the Respondent may be permitted to file the relevant data including the data of its STU, in this regard.

4. After hearing the learned senior counsel for the Petitioners and learned counsel for the Respondent, MPPMCL, the Commission observed that the Petitioners vide its affidavit 06.03.2023 has also furnished the annual leasing rate/FP/KM/annum if business model is considered as the 'other business'. The Petitioners vide the said affidavit has also furnished the annual leasing rate/FP/KM being used by other State Transmission Utilities/ PSUs, wherein the annual leasing rate in respect of AP Transco and TS Transco is Rs. 12500. Accordingly, the Commission directed the Petitioners to find out recent leasing rate of fiber pair is discovered through competitive bidding by State Transco or other transmission companies for leasing out fiber of their transmission companies in last one year and to submit the same along with details of infrastructure and services provided by transmission companies against the above discovered leasing rate on affidavit within three weeks with copy to other side. The Commission further directed the Petitioners to propose an index/ benchmark against which yearly charges for fiber can be charged and also to review their estimated revenue in light of the prevailing market rate and submit the same with detailed justification.

5. The Commission directed the Respondent, MPPMCL to file its affidavit placing on record the relevant details/data indicating the derived revenue from use of spare OGPW capacity, if any, within three weeks with copy to other side."

Submission of Respondent MPPMCL

16. Respondent MPPMCL, on 26.04.2023 has submitted a copy of the RFP documents issued by MPPTCL for leasing of Spare Dark Fibers of OPGW Network for commercial use. Relevant extracts of the RfP are as under:

"***2.1 Scope of proposal:***

2.1.1 General:

MPPTCL intends to lease out Minimum of one pair of fiber (Two fiber) and Maximum up to four fiber pairs (Eight fiber) of Dark Fiber in all the Line/Links shown at ***Annexure-II*** *to the eligible Telecom/Internet Service Providers for a period of 10 (Ten) years. This period can be extended up to next 5 years on mutually agreed terms.*

2.1.2 Quantity to quote:

Bidders are permitted to bid for minimum of one pair of fiber (two fiber) and maximum upto four pair of dark fibers (eight fiber) covered in the RFP. Fibers shall be leased on ***as is where is basis****. Bidders are free to choose their route and bid accordingly. However, Bidder shall have to bid for the entire line / link only. The overall route fiber pair km shall not be less than 1,000 fiber pair km in all respect otherwise the bid shall be rejected.*

2.1.3 Floor Price (Reserve Price):

The Floor price for leasing of dark fiber shall be Rs. 16,500/- per Fiber Pair per Km per Annum (including O&M charges) (exclusive of GST) for first year and escalation @ 5% per annum on compounding basis for subsequent years.

2.1.4 Tapping of fibers:

Bidders are to quote for the entire line/link. Bidders shall be permitted to join last mile fiber / interconnecting fiber at the MPPTCL substations only. On case to case basis with prior approval of MPPTCL, tapping of fibers may be allowed at splice box / junction box locations on the specified sections near to the bidder location. However, in such a case, Bidder has to pay for the required fiber pairs of that entire link (End to End) if they want to tap the fibers in middle of a Link.

***2.1.5 Co-location**:*

MPPTCL may provide space (4Ftx4Ft) for installation of necessary Terminal Equipments required for providing Telecommunication services and power supply in control room/carrier room of its substation subject to availability. An amount of Rs. 3,00,000=00 (Rupees Three Lakh only) per annum per substation shall be charged for the same for first year of lease. The rent shall be increased @ 5% per annum on compounding basis for second year as well as in each subsequent year. Power Supply and AC facility in control room / carrier room shall be provided subject to availability without any additional cost. However, if additional AC is required by any bidder, then successful bidder shall have to arrange AC with Power facility at their own. The entire cost towards additional infrastructure including Power supply charges as per actual shall be borne by bidder.

However, where space is not available in Carrier Room or Control Room to accommodate the Rack (size 4ft X 4ft) for installation of terminal equipment of the successful bidder, in that case, a suitable space 8ft X 10ft may be provided in the premises of substation for making their AC room (Shed/Shelter) on temporary basis. The rate, terms and conditions shall be as detailed below:

a) Rs 1,000 per Sq. feet (as per actual) per annum for space only. Only open space shall be provided by MPPTCL. The rent shall be increased @ 5% per annum on compounding basis for second year as well as in each subsequent years.

b) Any extra space required shall be charged in proportion to the rates specified subject to the availability and sole discretion of MPPTCL.

c) AC/DC supply, Air conditioning and Shed/Shelter shall be arranged by bidder at their own cost.

d) The AC Power required for terminal equipments of the successful bidder at the MPPTCL Sub-Stations shall be taken separately from the Local Distribution office by the successful bidder. However, MPPTCL shall provide necessary assistance, NOC and Documents etc.

Co-location charges are exclusive of GST.

2.1.6 Quote:

Bidders shall quote their highest Leasing Rate per Pair of Dark fiber per Km per Annum for a particular route for First Year. The lease rent will increase by 5% (Five percent) per year on compounding basis for second year and onwards. The Co-location charge is not required to be quoted by bidder. However, for the places where MPPTCL cannot accommodate their equipment in existing building, the successful bidder shall have to make their own arrangement. MPPTCL shall extend support in getting power supply connection from DISCOM. The Co-location charge will increase by 5% per annum on compounding basis in second year and onwards. ***There shall be upfront payment of annual lease rent and co-location charges at the beginning of each year***.

*Bidders shall submit their Co-Location space requirements at MPPTCL sub-stations as per Appendix-I, Form-12**.***

2.1.7 Cyber Security Guidelines applicable for awarded Bidder(s):

a) Bidders shall follow all Cyber Security Guidelines not limited to the advisories, guidelines, requirements at present as well as in future, defined by MoP/ MeitY/ CEA/ CERT-In/ CERT-Trans/ CERT-Go/ CERC/ MPERC/ POSOCO/ WRLDC strictly and also mandatorily to follow CEA Cyber Security Guidelines 2021 or any other new guidelines issued by the Govt. of India time to time.

b) For the equipment in MPPTCL premises and connected on MPPTCL network, the Bidder shall update/replace the software/hardware timely as per requirement/ guidelines/ advisories without any additional cost to MPPTCL.

c) The Bidder shall carry out inspection or sample testing of the IT/OT equipment to be connected on MPPTCL network before the supply of the materials as per prescribed Annexure A & B of CEA Cyber Security Guidelines 2021.

d) The Bidder shall adhere to CEA Cyber Security Guidelines 2021 particularly Article 4 and Article 14 for Cyber Security Audit and VAPT wherever required."

Submission of Petitioners

17. The Petitioners vide affidavit dated 12.07.2023 submitted as under:

a) In response to the queries raised by the Commission, the Petitioners submitted a report prepared by KPMG titled "Optical ground wire (OPGW) Dark Fiber - Bulk Leasing Rate Mechanism" (hereinafter "KPMG Report"). The KPMG Report captures data from the recent Request for Proposals ("RfPs") published by eight STUs along with their proposed minimum floor price for leasing per fiber pair per km, basis which a national average from these STU bids is derived.

b) Brief of the KPMG Report and the key findings therein are as under:

i. KPMG Report considers the bids floated by eight STUs, namely, Andhra Pradesh, Uttar Pradesh, Assam, Telangana, Gujarat, Madhya Pradesh, West Bengal, and Bihar. Floor rates notified by the STUs for leasing spare OPGW vary between INR 12,500 and INR 23,100 per fiber pair per km per annum, the details of floor prices of each bid are reproduced in the table below:

Sr. No.	STUs	Floor rate/FP/km (INR)	Fiber route km	Fiber for leasing	RFP Release Dates
1	APSFL (AP)	12,543	14,941	5*2	Oct-21
2	BSPTCL (Bihar)	12,600	7,500	8*2	Aug-22
3	GETCO (Gujrat)	12,543	4,000	5*2	Feb-23
4	MPPTCL (MP)	16,500	4,000	4*2	Feb-23
5	UPPTCL (UP)	12,500	9,700	9*2	July-22
6	AEGCL(Assam)	15,000	1,500	8*2	Jun-18
					Dec-21
7	WBSETCL(WB)	20,700	5,000	-	Aprl-22
8	TSTRANSCO(TL)	23,100	7,800	-	Oct-21

		16,600			

The weighted average for national level leasing floor rate has been derived as equivalent to ~ INR 14,250 per fiber pair per km per annum.

ii. The KPMG Report also establishes the actual monetization/ uptake percentage for five STUs based on their research and from deliberations that KMPG undertook with market experts. The monetization referred to hereunder denotes the quantum of spare OPGW fiber which is actually leased or taken up by telecom customers out of the total inventory of spare OPGW fiber notified (in the bid RfP document) as available over the STUs' entire transmission network in a state. A table showing the OPGW monetization ratio in six states is reproduced below:

Sr. No.	State Transmission Utilities	OPGW monetization ratio
1	UPPTCL (Uttar Pradesh)	12.7%
2	TSTRANSCO (Telangana)	16.1%
3	APSFL (Andhra Pradesh)	~20% - 25%
4	BSPTCL (Bihar)	25.8%
5	WBSECTL (West Bengal)	~20% - 25%
6	OPTCL (Odisha)	~6%

Based on the above, the average monetization percentage has been derived to be in the maximum range of ~20% of the total inventory available with an STU.

ANALYSIS PROVIDED IN THE KPMG REPORT

c) The KPMG Report distinguishes between the utilization potential of KTL's asset (being an isolated 313 km transmission line as opposed to a state-wide meshed network of an STU) from the spare OPGW available on the vast networks of various STUs. The key distinguishing feature in favour of STUs over KTL is the flexibility of prospective bidders to bid for identified routes having a huge business potential, primarily in Metro, Tier-I and Tier-II cities, as opposed to an inflexible 313 km stretch of OPGW fiber held by KTL.

d) KPMG has also extracted the monetization and revenue model adopted by the Odisha STU, Odisha Power Transmission Corporation Limited ("OPTCL") from their Annual Activity Report for FYs 2021-22 and 2020-21. As regards the revenue booked by OPTCL from leasing spare OPGW cables on OPTCL's existing network, OPTCL has made the following disclosure in "Record note of the Review Meeting on Performance of OPTCL for the period from April 2021 to March 2022 (FY 2021-22)"

“OPTCL has already laid around 6020 Ckt km. (24 fiber) of OPGW out of which OPTCL has utilized 24080 fiber km and leased 9268 fiber km (1 fiber). OPTCL has earned revenue of about Rs. 3.50 Cr. Per annum by way of leasing dark fibers to Powergrid, BSNL, LWTPL, Airtel, Railtel and Tata Communication.”

Based on the inputs given in the aforesaid OPTCL record notes, the following information has been derived by KPMG:

Sr. No.	OPTCL Parameters	Unit	FY 21-22	Remarks
(a)	Total network length	ckt. km	6020	Sourced from Sr. No. 10 from records of meeting for OPTCL performance from April 21 – March 22.
(b)	Total OPGW network length	fiber pair km	144480	Multiplied Sr. No. (a) with 24 fiber with total network length of 6020 ckt. Km (referred Sr. No. 10 of records of meeting for 24 fiber).
(c)	Leased network length	fiber pair km	9268	Sourced from Sr. No. 10 from records of meeting for OPTCL performance from April 21–- March 22.
(d)	Total revenue earned	INR Cr.	3.5	Sourced from Sr. No. 10 from records of meeting for OPTCL performance from April 21 - March 22.
(e)	Monetization ratio	%	6%	Divided Sr No. (c) with Sr. No. (b).
(f)	Revenue earned per fiber pair km (actually leased out)	INR	3776	Divided Sr No. (d) with Sr. No. (c).
(g)	Revenue realised per ckt. km (entire OPTCL network)	INR	5814	Divided Sr. No. (d) with Sr. No. (a).

e) Based on the above utilization of about 6% of OPTCL’s total available fiber network, KMPG has considered that on a per-fiber leasing model, the following business case for the first 15 years is expected if KTL undertakes a direct, per-fiber leasing model:

Sr. No.	Description	Assumptions	Unit	Value
1	Annual floor leasing rate (per fiber pair km.)	Basis weighted average for national leasing floor rate	INR	14,250
2	OPGW fiber length available for monetization	As per actuals	km.	313
3	Spare OPGW fiber pairs available for monetization	As per actuals	Nos.	21
4	Fiber pair kms available for monetization	313 kms x 21 fiber pairs	fiber pair km.	6,573
5	Y-o-Y escalation rate	As per industry benchmarks	%	5
6	Service operation cost per mon.	Basis actual cost incurred to maintain 313 km network	INR	260
7	CERC/ Regulatory revenue share for LTTCs.	10% of gross revenue from telecom business in a given	%	10

Sr. No.	Description	Assumptions	Unit	Value
		financial year		
8	Monetization rate Y1	Basis data points mentioned in para 2.5.2 of the KPMG Report.	%	4
9	Monetization rate Y5		%	10
10	Compound Annual Growth Rate (CAGR)	Y5 onwards up to Y15	%	6
11	Capex		INR	0
12	Loan		INR	0
13	Cum. revenue from operations		INR Cr.	25.3
14	NPV for revenue from ops		INR Cr.	11.5
15	Cumulative operating expenses		INR Cr.	5
16	NPV for operating expenses		INR Cr.	2.3
17	NPV for taxation expenses		INR Cr.	2.7
18	Cumulative free cash flows		INR Cr.	14.4
19	**NPV for free cash flows**	**Computed at discount rate 7.7%**	**INR Cr.**	**6.46**

f) Based on the above business model, KPMG has evolved a business case for bulk leasing of OPGW fiber by KTL to a third-party, where Petitioner will lease full spare OPGW capacity, i.e., all 21 spare fiber pairs for the entire length of the transmission line(s) to a single entity, and the pricing for bulk leasing will be done based on the tier-wise optimal pricing as determined under the KPMG Report. This model will be the '**bulk leasing model'**. The following objectives/ benefits are foreseen under **the proposed bulk leasing model** for arriving at an appropriate bulk leasing price for KTL's assets:

i. The total cost borne by KTL for implementing the entire OPGW corridor over 313 km of its transmission network shall be recovered by KTL from third parties by bulk leasing the spare pairs by the 13th year of undertaking the business. Out of this, KTL, in the instant Petition, has suggested sharing 70% of revenues with its LTTCs, effectively reimbursing 70% of the total cost borne by the LTTCs for establishing the entire OPGW network (i.e., INR 10,95,50,000/-) for KTL assets in 13 years. It is expected that at a 70% revenue-sharing model, the LTTCs shall recover 100% of the cost of the OPGW assets within 15 years of the contract cycle.

ii. This bulk leasing model shall ensure a steady stream of revenue and stable projections of revenues for KTL irrespective of any investments/ manpower spending on building per-fiber pair monetization model. This is because a per fiber pair monetization model depends on continually attracting interest from multiple market players who typically enter into contracts for a maximum period of five years, which makes it an especially difficult exercise for individual SPVs/ co-Petitioners with no experience in such marketing and contracting activities.

iii. The Indian telecom sector is an oligopolist market with 4-5 market players who share their networks with each other for optimizing network utilization. Therefore, per-fiber pair leasing model with a maximum ceiling (of say 2-4 fiber pair) for each bidder would limit the monetization of total fiber pairs available for leasing.

iv. Leasing a single or a set of fiber to different and multiple service providers in small quantities (especially where total network lengths are small) adds overhead and management expenses for businesses.

v. Existing 'as-is' OPGW networks have a very low degree of integration with the terrestrial networks of incumbent operators, thus any operator who would choose to bid for these assets shall be required to invest substantial capex to integrate existing terrestrial networks, and considering the geographical location of KTL assets, there is a potential risk of KTL monetizing a significantly lower percentage of its spare assets when compared with bulk leasing model.

vi. The co-Petitioners propose to offer all spare OPGW capacity (i.e., the capacity of all 21 spare OPGW fiber pairs) to the same entity.

vii. Bulk monetization in this manner will guarantee upfront uptake of 100% of the spare OPGW pairs and will, therefore, guarantee revenue generation upfront rather than being contingent on individual CSPs expressing interest in a piece-meal fashion.

viii. The co-Petitioners' revenue from the proposed business will not be subject to the vagaries of the market response/ uptake. On the other hand, the actual gross revenue earned will depend on the actual uptake of the services by the CSPs if the co-Petitioners provide data services on a per fiber basis to different customers (i.e., direct monetization model).

g) The KPMG Report has derived a base value of INR 31,710/- per route km per annum for bulk leasing all 21 spare OPGW fiber pairs to a third party. At INR 31,710/- per route km per annum for bulk leasing spare OPGW, KTL shall earn a total revenue of INR 99.25 Lakhs each year with a proposed year-on-year escalation rate of 5% on the leasing rate. Therefore, for a contract life of 15 years that KTL executes with a third party for bulk leasing, KTL shall derive the following revenue over the course of the contract:

Sr. No.	Year No.	Contract Price	Route Kms	Y-o-Y Revenue
1.	Year 1	31710	313	99,25,230
2.	Year 2	33296	313	1,04,13,197
3.	Year 3	34960	313	1,09,42,480
4.	Year 4	36708	313	1,14,89,604
5.	Year 5	38544	313	1,20,64,272
6.	Year 6	40471	313	1,26,67,423
7.	Year 7	42494	313	1,33,00,622
8.	Year 8	44619	313	1,39,65,747
9.	Year 9	46850	313	1,46,64,050
10.	Year 10	49193	313	1,53,97,409
11.	Year 11	51652	313	1,61,67,076
12.	Year 12	54253	313	1,69,81,189
13.	Year 13	56947	313	1,78,24,411
14.	Year 14	59794	313	1,87,15,522
15.	Year 15	62784	313	1,96,51,392
Total Revenue earned in 15 years of business by KTL				**21,41,69,624**
At 70% revenue sharing, LTTCs shall receive INR				**14,99,18,740 (~INR 15 Cr.)**
Whereas, as per the accepted cost of INR 3.5 lakh rs. Per Km for laying OPGW network for transmission assets, KTL had made a capital expenditure of 313 kms x 3,50,000/-.				**10,95,50,000/- (INR 11 Crs. Approx.)**

h) For deriving the optimal price point of INR 31,710 for the first contract year for the bulk leasing/ monetization model, KPMG has undertaken the following steps:

Step 1: KPMG has estimated the NPV of the benefits on offer for KTL if they opt for the direct leasing/ monetization business model.

Step 2: KPMG has identified the optimal price point for the bulk leasing model where the NPV of the benefits realized under the bulk leasing/ monetization model is equivalent to the NPV of benefits realized under the direct leasing/ monetization model.

i) The term 'leasing' used throughout the Report does not refer to a lease in terms of Section 17 of the Electricity Act, and nothing in the Report or the instant Submission ought to be construed as if a 'lease' is being sought to be executed over the co-Petitioner's transmission assets. The term lease is colloquially used in the telecom industry to refer to any use of OPGW assets. It is reiterated that the co-Petitioners will not create any lease or encumbrance on any of the transmission assets.

j) The following key assumptions have been considered by KPMG:

i. Leasing rate of INR 14,250 per fiber pair km per year (national weighted average of OPGW leasing floor prices) is considered the right rate card benchmark for Petitioner No. 1's asset monetization, which is primarily a Tier III asset.

ii. Considering the low attractiveness basis of its existing demographic profile and associated monetization constraints, it is expected that this asset shall fail to meet national average benchmarks for OPGW leasing. Thus, for base case working following monetization ratio assumptions have been considered:

a) Y1 monetization ratio – 4% (This 4% has been considered for per fiber pair per km direct leasing model, which is adopted by OPTCL and financial data extrapolated)

b) Y5 monetization ratio – 15%

c) Y5 onwards, compounded annual growth rate (CAGR) – 6% p.a.

iii. There is no incremental capital expenditure to be considered because the asset has been installed already, and the same asset will be used to create an alternate revenue stream.

iv. The recurring expenses are assumed to be: (a) maintenance charges of INR 260 per km per annum and (b) 10% of the gross revenue from such business in a given financial year that shall be shared with the LTTCs.

v. Petitioner No. 1 will decide to offer the spare capacity of their available 21 fiber pairs of OPGW directly to the end-user (TSPs and ISPs) under the direct leasing model.

k) Based on the above considerations and assumptions, KPMG has prepared revenue projections indicating the cumulative free cash flows available with Petitioner No. 1 for the duration of 15 years is INR 14.4 crores translating to an overall NPV of such cash-flows/ benefits to INR 6.24 crores (applying a discounting rate @ 8.09% per annum).

l) In accordance with the KPMG calculation, Petitioner No. 1 should aim to recover at least INR 31,710 per route km per annum as the bulk monetization rate from the third party to whom the spare OPGW capacity services have been offered to match the NPV benefits under the direct monetization mode KPMG's estimate of the optimal bulk leasing rate for KTL is between Rs. 31,710 to Rs. 45,570 per route km per annum.

m) In Conclusion, the Report provides the following tier-wise optimal pricing based on the projected growth in the OPGW monetization business across different geographies:

Type of City	Optimal Pricing in INR per route km per annum
Metro	73,500 - 87,360
Tier I	59,430 - 73,500
Tier II	52,500 - 59,430
Tier III	31,710 - 45,570

n) With respect to the proposed business, the co-Petitioners have envisaged and proposed a bulk monetization model, as analysed in the KPMG Report.

o) Detailed chart comparing the salient features of the recent RFPs/ EOIs/ NITs issued by 4 STUs for OPGW leasing, is as under:

Comparision Sheet STU RFP on OPGW

Account Name	APSFL (RfP dt. Oct 2021)	BSPTCL (RfP dt. Aug 2022)	UPPTCL (RfP dt. July 2022)	MPTRANSCO (RfP dt. Feb 2023)
Period of Lease(In Years)	10 extendable upto 5 years	5 extendable upto 5 years	15	10 extendable upto 5 years
Bidder Allowed	Telcos, ISP & IP-1	Telcos, ISP & IP-1	Telcos, ISP & IP-1	Telcos, ISP & IP-1
Minimum Lease Rate 1 (In INR)	12,543	12,600	12,500	16,500
Minimum Rate of Escalation	5%	5%	5%	5%
O& M Charges (In INR)	2,730	Included in Lease Rate	Included in Lease Rate	Included in Lease Rate
Minimum Rate of Escalation	5%	NA	NA	NA
Co-Location Charges (In INR)	2,78,250	2,62,500	1,50,000	3,00,000
Minimum Rate of Escalation	5%	NA	5%	5%
Co- Location Infra	The Maximum space for colocation is 800MM*1000MM*2000MM (L*W*H) (42U Rack Space) and 2KVA of AC power supply will be provided per colocation.	(Space -4Ftx4Ft) In case of Availability of AC/DC supply, Air conditioned space and 2 KVA AC Supply.	(Space -4Ftx4Ft) AC/DC supply subject to availability.	MPPTCL may provide space (4Ftx4Ft) for installation of necessary Terminal Equipments required for providing Telecommunication services and power supply in control room/carrier room of its substation subject to availability.
OPGW Stretch (In kms.)	14,941	7,500	9,700	4,000
Total Pair of Fiber	12*2	12*2	12*2	12*2
Maximum Fibre to leased	5*2	8*2	9*2	4*2
Minimum kms. of OPGW to be leased	1,000	500	1,000	1,000
Minimum pair of fibre to be lease	1*2	1*2	1*2	1*2
Payment terms (ARC)	Annual in Advance	Annual in Advance	Annual in Advance	Annual in Advance

p)

q) In view of the above, the Commission is requested to permit the Co-petitioners to commence the 'other business' forthwith and fix an appropriate revenue sharing percentage in accordance with Regulation 5(1)(b) of the Revenue Sharing Regulations.

Hearing on 31.07.2023

18. During the hearing on 31.07.2023, Petitioner requested a permit to file their notes of submission in the matter. Further Respondent No.1, MPPMCL, has contended that the OPGW monetization ratio considered by the Petitioners (4%- 6%) appears to be quite lower than the average monetization ratio (approx. 20%), and also the leasing rate of fiber pairs suggested by the Petitioners appears to be on the lower side as in MPPTCL's case itself, the floor rate for leasing spare OPGW had been Rs. 16,500/- per fiber pair per km per annum. MPPMCL also submitted that earlier, the Petitioners had proposed to share 100% of revenue with LTTCs. However, vide their affidavit dated 12.7.2023, the Petitioners propose to share only 70% of the revenue with LTTCs.

19. The Commission allowed the Petitioners to file their note of submission, and subject to that, the Commission reserved the order in the matter.

Submission of Petitioners

20. The Petitioners, vide their note of submission on 10.08.2023, has inter-alia reiterated its earlier submission, including the following:

a) The co-Petitioners have to compete with much larger networks of the STUs and offer a product which is commercially prudent for the TSPs to avail. The potential of monetising the co-Petitioners' spare OPGW capacity is not *pari materia* with that of the STUs' spare OPGW monetisation potential. The STUs are offering flexibility, freedom, and an opportunity for the TSP to bunch different cities and geographical locations and bid for cumulative network lengths (with minimum kms typically ranging between 500 to 1000 kms). Therefore, to compete with the STUs, the co-Petitioners need to offer OPGW services with certain unique features, i.e., the services should be offered for the whole length of their transmission lines. This will enable the TSPs to plan their products differently and find it attractive to utilise the spare OPGW capacity of the co-Petitioners.

b) To respond to Respondent No. 1, it is submitted that a 20% national average monetisation ratio for STUs includes prime metro city telecom circles, which would have the highest uptake by TSPs. This cannot be the case for a Tier III asset such as KTL. Detailed reasons have been listed in the KPMG Report as to why a 4% monetisation ratio in year 1, and a 10% monetisation ratio in year 5 is more appropriate for projecting the NPV value under the direct leasing model for KTL.

Analysis and Decision

21. We have considered the submission of the Petitioners and the Respondents. The following issues arise for our consideration:

Issue No. 1: Whether the instant Petition is maintainable and whether there is any issue of encumbrance on transmission assets of the Petitioners due to Petitioners' proposal?

Issue No. 2: Whether the business model proposed by Petitioners is a 'telecommunication business' or a 'business other than telecommunication business'? Whether Petitioner's case is covered under Regulation 4 (1) or Regulation 5(2) of the Revenue Sharing Regulations? Whether the Petitioners have furnished the necessary details required for approval under Regulation 4(1) of the Revenue Sharing Regulations?

Issue No 3: Whether is there any Cyber Security threat by allowing the Petitioners' proposal to use spare fibers of OPGW for data transfer activities?

Issue No. 4: What shall be the methodology for sharing lease amount received from the entities for utilizing the access of the spare fibers of the Petitioner's OPGW.

22. The above issues are being dealt with in the succeeding paragraph.

Issue No. 1: Whether the instant Petition is maintainable and whether there is any issue of encumbrance on transmission assets of the Petitioners due to Petitioners' proposal?

23. Petitioners submitted that under the proposed business model, Sterlite Interlinks Limited (SIL) (an associate company of the Petitioners) shall be involved in undertaking the coordination and management of the telecommunication business dealing, which will act as an interface between the Petitioners and the entities interested in availing the telecommunication infrastructure services being offered by the Petitioners.

24. Petitioners have submitted that KTL and GTTPL had earlier approached this Commission through Sterlite Power Transmission Limited (SPTL) (earlier Sterlite Power Grid Ventures Limited) in Petition No. 544/MP/2020 seeking approval for its proposed other business, which was dismissed by the Commission on two primary grounds: (a) maintainability; and (b) perceived creation of encumbrance on transmission assets. The Petitioners have further submitted that both the said aspects have been addressed in the instant Petition. To address the maintainability aspect, the Petitioners have directly approached this Commission, and to address the aspect of the perceived creation of encumbrance, the Petitioners have proposed a different scheme under the instant petition. In Petition No. 544/MP/2020, the Petitioner had inter alia indicated a 'limited licensing' of vacant spaces on transmission towers, duct spaces, vacant spaces on transmission sub-station and RoW. None of these activities are proposed to be undertaken in the captioned matter, nor is there any licensing/ leasing involved herein. In contrast, in the instant petition, only the contractual right to avail services from the Petitioners by utilisation of the unutilized capacity on spare pairs of OPGW fiber for providing telecommunication infrastructure services is proposed.

25. Respondent MPPMCL, during the hearing on 05.07.2022, has raised the objection on the maintainability of the Petition. MPPMCL has submitted that Petitioner(s) have already waived their rights in favour of Sterlite Power Grid Ventures Ltd in Petition no. 544/MP/2020, which had already been rejected by the Commission and therefore, rights to file the same claim in the same forum or in appellate forums had been extinguished by Petitioners. Respondent MPPMCL also submitted that the contents and issue in Petition No. 544/MP/2020 and in present Petition are either identical or

incidentally identical, and since Petition no. 544/MP/2020 was dismissed while passing the speaking and detailed order dated 18.01.2022; hence, the present Petition is barred by PRINCIPLES OF RES-JUDICATA / CONSTRUCTIVE RES-JUDICATA.

26. Petitioners have submitted that in Petition No. 544/MP/2020, two of the co-Petitioners herein had merely given No Objection Certificates in favour of their parent company, SPTL, to file the said Petition, and there was no waiver or relinquishment of rights or waiver of any kind. Further, there is no question of any waiver by Petitioner Nos. 3 and 4, which were not even parties in Petition No. 544/MP/2020. Petitioner further submitted that the principles of res-judicata and constructive res-judicata are not applicable to the captioned Petition since there is a clear change in the Petitioners, a new cause of action, a modified business model and different relief is sought herein vis-à-vis those in Petition No. 544/MP/2020.

27. Petitioners have submitted that without prejudice, in the event this Commission is not considering the matter as 'telecommunication business', as an alternative this Commission may approve the business model as 'business other than telecommunication business' or 'other business' as provided under the Regulation 5(1)(b) of the Revenue Sharing Regulations, by permitting co-Petitioner to grant access of spare OPGW cables to SIL Limited for offering long-distance data transfer solutions to Communication Service Providers.

28. Respondent MPPMCL, during the hearing on 25.04.2023, submitted that he has no objection if the proposed business model of the Petitioners is considered as 'business other than telecommunication business' i.e. merely providing access to their spare OGPW cables.

29. We have considered the submission of Petitioners, Respondent MPPMCL and facts on record. We have perused Order dated 18.01.2022 in Petition No. 544/MP/2020 quoted as under:

"43. We note that the Petitioner has submitted that the transmission licensee SPVs themselves will not be undertaking the telecom business, but as part of the business model, grant 'limited license' for use of vacant spaces on their transmission towers, sub-stations and unutilized OPGW assets of its subsidiary companies to some other person and provide 'limited rights' to lay down additional OPGW assets by utilizing the corridors created by its subsidiary companies to some other person.

44. We have examined the business model proposed by the Petitioner. We are in agreement with the Respondents that granting such 'limited license' or providing such 'limited right' to other person to use assets would not happen unless certain type of encumbrances are created *in favour of such 'other person' which is contrary to Regulation 8 of the 2020 Revenue Sharing Regulations, which prohibits creation of encumbrances on the transmission assets.*

45. We further note that the Petitioner has submitted that for the purpose of actual use of assets, the Petitioner and the other person shall sign a hand-over take-over ("HOTO") sheet which shall demarcate the assets licensed by the Petitioner to the other person for being used for other business. However, we observe that the Petitioner has not provided the specific mode of transfer of assets for use when the hand-over take-over ("HOTO") sheet gets signed.

46. We note that the Petitioner itself has submitted that the proposed business model is different from the one envisaged for telecommunication business in the 2020 Revenue Sharing Regulations and is not technically mentioned in the same Regulations. And on this count, the Petitioner has requested the Commission to invoke the provisions of Regulation 10 of the 2020 Revenue Sharing Regulations.

47. In view of the discussions in the foregoing paragraphs, we do not find that it is a fit case for invoking the provisions of Regulation 10 of the 2020 Revenue Sharing Regulations and we are of the considered opinion that the petition in the present form on behalf of the transmission licensee SPVs for approval and adoption of the proposed business model and revenue sharing mechanism and carrying out the proposed business model cannot not be allowed.

48. Accordingly, the IA No. 54/2020 stands disposed of and the Petition No. 544/MP/2020 stands rejected."

As per the above, the Commission observed that granting such a 'limited license' or providing such 'limited right' to other persons to use assets would not happen unless certain types of encumbrances are created in favour of such 'other person'. Further, the Commission held that the petition in the present form on behalf of the transmission licensee SPVs for approval and adoption of the proposed business model and revenue sharing mechanism and carrying out the proposed business model cannot be allowed. Accordingly, the Commission rejected Petition No. 544/MP/2022.

30. We observe that the petitioners have proposed a business model wherein the petitioner will provide only the access/utilisation right of the spare fibers of the OPGW on a lease basis for data transfer activity. However, the ownership and control shall remain with the petitioners. We also observe that the instant petition is filed by the four Co-Petitioners who are transmission licenses and are the owners of the OPGW installed on their respective transmission lines. Thus, we are of the considered view that the instant petition, filed by the four Co-Petitioners, is different from the Petition No. 544/MP/2020, which was filed by the Sterlite Power Grid Ventures Limited (SPGVL) in the capacity of parent company of the SPVs (Special Purpose Vehicles) merely on the basis of the NOCs given by the transmission licensees. We have taken note of "no objection" by MPPMCL to the "other business" of Petitioners where "access rights" of spare OPGW fibers were proposed to be granted by Petitioners to a third

party. We are of the considered view that there is no issue of encumbrance in case spare OPGW fibers are utilised for data transfer activities.

31. Considering the above, we are of the considered view that the instant Petition is maintainable.

32. The issue is answered accordingly.

Issue No. 2: Whether the business model proposed by Petitioners is a 'telecommunication business' or a 'business other than telecommunication business'? Whether Petitioner's case is covered under Regulation 5 (1) or Regulation 5(2) of the Revenue Sharing Regulations? Whether the Petitioners have furnished the necessary details required for approval under Regulation 4(1) of the Revenue Sharing Regulations?

33. Petitioners had submitted different business models as follows:

(i) Sterlite Interlinks Limited (SIL) (an associate company of the Petitioners), an IP-I Entity, shall be involved in undertaking the coordination and management of the telecommunication business' dealing, which will act as an interface between the Petitioners and the entities interested in availing the telecommunication infrastructure services being offered by the Petitioners. Petitioners submitted that sharing of 10% of Petitioners' gross revenue earned by undertaking the telecommunication business is acceptable to the Petitioners. Petitioners estimated the revenue to be derived on per unit basis is INR 8,000 per fiber pair per km per annum. Petitioner submitted that under the proposed business the service which will be rendered out is data transfer service which is covered under the definition of 'Telecommunication Services' under Section 2(1)(k) of the TRAI Act, 1997. Petitioner further submitted that the co-Petitioners/ transmission licensees which are undertaking the transmission business will be the entity which will undertake the telecommunication business, and Sterlite Interlinks Limited will not be undertaking that part of the telecommunication business, which is by use of the transmission assets.

(ii) Subsequently, the Petitioners based on the KPMG report, have proposed a new model (bulk leasing model) as follows: '

The co-petitioners are to be permitted to commence the 'other business' forthwith and fix an appropriate revenue sharing percentage in accordance with Regulation 5(1)(b) of the Revenue Sharing Regulations. Under this 'other business' proposal, the data transfer services will be offered in the form of merely access rights to their spare OPGW capacity on a standalone basis and will not include co-location infrastructure and last-mile connectivity up to the CSP's Point of Presence. Petitioners further submitted that 'other business' will be undertaken by the respective co-petitioners and the rate charged by the co-petitioners from its potential consumers of the 'other business' will be at an arm's length basis and will be derived through a fair market assessment or in terms of this Commission's directions as may be deemed appropriate.

34. CTUIL has submitted that Petitioners have to ensure the availability of at least 6 fibers out of 24 fibers and 12 fibers out of 48 fibers (LILO portion) in the OPGW for ULDC data & voice communication to ensure grid monitoring of ISTS Transmission System up to respective RLDC and further the Petitioners shall be obligated to ensure availability of the required fibers in healthy and working conditions as per the provisions of the Communication Regulations. Furthermore, the Petitioners shall also ensure that there shall be no impact on ISTS grid operability and stability by their proposed business model.

35. Petitioners have also submitted as follows:

a) Petitioners unequivocally assure the availability of the OPGW for ULDC data & voice communication and will ensure that there is no adverse impact on ISTS grid operability or ULDC data & voice communication on account of the Petitioners' proposed telecommunication business.

b) Under the proposed business model the Petitioners will not be creating any prohibited third-party rights in favour of SIL/CSPs and all activities and works associated with the OPGW assets shall be undertaken by the co-Petitioners on a deposit works basis and shall at all times retain primary responsibility and control over all such assets.

c) they will continue to fall under the jurisdiction of this Commission and will be accountable to this Commission for any adverse impact on inter-State transmission of electricity and grid security.

d) Petitioners have unequivocally indemnified LTTCs against any potential losses or damage on account of the proposed business.

36. We have considered the submission of Petitioners and Respondents. The relevant provisions under the Electricity Act, 2003, and other regulatory provisions are as follows:

37. Regulation 2(7) of the Revenue Sharing Regulations provides as under:

"(7) "telecommunication business" means any business of telecommunication services by utilizing transmission assets:

Provided that "Telecommunication Service" shall have the same meaning as defined in sub-clause (k) of clause (1) of Section 2 of the Telecom Regulatory Authority of India Act, 1997;"

Further, Sub-clause (k) of clause (1) of Section 2 of the Telecom Regulatory Authority of India Act, 1997 provides as under:

"(k) "telecommunication service" means service of any description (including electronic mail, voice mail, data services, audio tex services, video tex services, radio paging and cellular mobile telephone services) which is made available to users by means of any transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature, by wire, radio, visual or other electro-magnetic means but shall not include broadcasting services.

Provided that the Central Government may notify other service to be telecommunication service including broadcasting services"

As per the above, telecommunication business means any business of telecommunication services by utilizing transmission assets. The telecommunication service means services available to users by means of any transmission or reception of signs, signals, writing, images and sounds or intelligence of any nature by wire, radio, visual or other electro-magnetic means.

38. Regulation 4(1) and Regulation 5 of Revenue Sharing Regulations provides as follows:

"4. Intimation of other business: (1) A transmission licensee proposing to undertake other business shall give prior intimation to the Commission:

Provided that if other business is not telecommunication business, the transmission licensee shall seek prior approval of the Commission by filing a petition, as regards sharing of revenues derived from such other business;

Provided further that a transmission licensee having undertaken other business before commencement of these regulations shall give prior intimation or seek approval, as the case may be, within two months of coming into force of these regulations.

5. Manner of sharing of revenue from other business: (1) The transmission licensee shall share the revenue from the other business in the following manner:

(a) Telecommunication business: In case the transmission licensee engages in telecommunication business, an amount equal to 10% of the gross revenue from such business in a given financial year shall be shared with the long -term customers.

(b) Business other than telecommunication business: In case other business is not

telecommunication business, the sharing of revenue shall be decided by the Commission on case-to-case basis based on transmission assets utilized for such other business, the revenue derived or estimated to be derived from such other business and other details furnished by the transmission licensee under Regulation 4 of these regulations:

Provided that the Commission shall provide an opportunity of being heard to the transmission licensee and the long term customers of the assets before deciding the manner of sharing of revenue."

39. We observe that the new business model proposed by the Petitioners is to give access rights of the spare OPGW fibers to other entities in order to enable data transfer solutions by such other entities for the telecommunication business. We are of the view that t merely giving the access rights of the spare fibers of the OPGW to other entity is not covered under telecommunication business under Regulation 2(7) of the Revenue Sharing Regulations, since leasing out access rights is not a telecommunication service defined in Telecom Regulatory Authority of India Act, 1997. We also note that Respondent MPPMCL is also in agreement with the petitioners' proposal to consider its business as "business other than telecommunication business" (i.e. 'other business'). We observe that Petitioners proposal falls under business other than Telecommunication business to be covered under Regulation 5(1)(b) of the Revenue Sharing Regulations.

40. Petitioners have submitted the following details in terms of Regulation 4(2) of the Revenue Sharing Regulations:

i. **Nature of other business**: In the proposed business, the services will be offered (without creating any right, title or interest of any proprietary nature) in the form of the use of the unutilized capacity on spare pairs of OPGW fiber of the existing OPGW fiber assets owned by the Petitioners. However, during the course of proceedings, based on the KPMG Report, the Petitioners vide affidavit dated 12.07.2023 have proposed bulk leasing/ monetization model to lease all 21 spare OPGW fiber pairs to a third party.

ii. **Transmission assets utilized or proposed to be utilized for other business**: Petitioners have submitted the list of Petitioners' assets, which can be utilized for the proposed business, which includes 313 Km route length of OPGW (24 no. of OPGW Fiber pairs) of KTL, 238 Km route length of OPGW (24 no. of OPGW Fiber pairs) of GTTPL, 183 Km route length of OPGW (91 Km of 24 no. of OPGW Fiber pairs and 92 Km of 48 no. of OPGW Fiber pairs) of MUML and 334.2 Km route length of OPGW (24 no. of OPGW Fiber pairs) of LVTPL.

iii. **Cost of such transmission assets utilized or proposed to be utilized**: The tentative cost of transmission assets as derived from one of the Petitioner SPVs is Rs. 0.04 Cr per km for OPGW Capex which includes Material supply, stringing, apportioned tower cost and overheads, and Rs. 6000/- per annum per tower/Km for Opex (since the O&M of the OPGW fiber is bundled with the overall O&M of the transmission lines, so Opex cost has been estimated). These figures are generally common for all SPVs having 765kV and 400kV transmission lines.

iv. **Revenue derived or estimated to be derived from other business:** Based on the KPMG Report, the Petitioners have proposed a bulk leasing/ monetization model to lease all 21 spare OPGW fiber pairs to a third party with an estimated bulk leasing rate of INR 31,710 per route km.

v. **Underlying assumptions and justifications for estimated revenue**: KPMG under its Report have considered key assumptions that (i) a Leasing rate of INR 14,250 per fiber pair km per year (national weighted average of OPGW leasing floor prices) is considered the right rate card benchmark for Petitioner No. 1's asset monetization, which is primarily a Tier III asset, (ii) considering the low attractiveness based on the existing demographic profile and associated monetization constraints, it is expected that this asset shall fail to meet national average benchmarks for OPGW leasing. Thus, for base case working monetization ratio assumed; Y1 monetization ratio – 4%, Y5 monetization ratio – 15%, Y5 onwards, compounded annual growth rate (CAGR) – 6% p.a., (iii) there is no incremental capital expenditure to be considered because the asset has been installed already, (iv) the recurring expenses are assumed to be: (a) maintenance charges of INR 260 per km per annum; and (b) 10% of the gross revenue from such business in a given financial year that shall be shared with the LTTCs.

vi. **Impact, if any, of use of transmission assets for other business on inter-State transmission of electricity**: Petitioners have unequivocally undertaken to implement all reasonable precautions to ensure that the use of transmission assets for other businesses does not affect the transmission operation.

vii. **Any other details required by the Commission**: The Petitioners undertake to provide all such information, as required by this Commission from time to time.

41. The Petitioners, based on the KPMG report, have proposed a bulk leasing model and requested to permit the co-petitioners to commence the 'other business' forthwith and fix an appropriate revenue sharing percentage in accordance with Regulation 5(1)(b) of the Revenue Sharing Regulations.

42. We have considered the submissions of the Petitioner. Regulation 4 of Revenue Sharing Regulations provides as follows:

"4. Intimation of other business: (1) A transmission licensee proposing to undertake other business shall give prior intimation to the Commission:

Provided that if other business is not telecommunication business, the transmission licensee shall seek prior approval of the Commission by filing a petition, as regards sharing of revenues derived from such other business;

Provided further that a transmission licensee having undertaken other business before commencement of these regulations shall give prior intimation or seek approval, as the case may be, within two months of coming into force of these regulations.

(2) While giving intimation or seeking approval in terms of clause (1) of this regulation, the transmission licensee shall furnish the following details:

a) nature of other business;
b) transmission assets utilized or proposed to be utilized for other business;
c) cost of such transmission assets utilized or proposed to be utilized;
d) revenue derived or estimated to be derived from other business;
e) underlying assumptions and justifications for estimated revenue;
f) impact, if any, of use of transmission assets for other business on inter-State transmission of electricity; and
g) any other details required by the Commission"

43. The details furnished by the Petitioners under Regulation 4 of Revenue Sharing Regulations are perused in light of the 'bulk leasing model' proposed by the Petitioners based on the KPMG report. We observe that Petitioners have submitted the required details in terms of Regulation 4(2) of the Revenue Sharing Regulations.

44. Considering the above, we allow the Petitioners i.e. the transmission licensees, to undertake 'other business' by providing the access rights of the spare fibers of the OPGW to its associate company "Sterlite Interlinks Limited" in terms of the following:

a) The primary business of the Petitioner as transmission licensee shall not be compromised under any condition, and also, the commercial interest of the long-term transmission customers shall be protected.

b) The ownership, control and management, including operation and maintenance of the transmission system, including all cores of OPGW cables, transmission towers, and substations, shall continue to be vested with and controlled by the Petitioners at all times.

c) The Petitioner shall keep the required number of fibers of OPGW in healthy and working conditions, as required by CTU, dedicatedly for Unified Load Despatch Centre (ULDC) data & voice communication to ensure grid monitoring of ISTS Transmission System.

d) The Petitioners shall ensure that the OPGW fibers leased to the other entity shall be utilised by such other entity for data transfer solutions for telecommunication business only and the same shall not be sold, transferred, or otherwise for any other purpose.

e) The utilization of the leased fiber by the leasing entity shall not in any manner adversely affect Petitioner's performance or obligations as a transmission licensee.

f) The Petitioners shall indemnify all the long-term transmission customers for any additional cost or losses or damages caused due to said 'other business'.

g) Petitioners shall comply with Cyber Security Guidelines and advisories, by MoP/ MeitY/ CEA/ CTU/ Grid-India, CERT-In/ CERT-Trans/ CERT-Go and shall ensure that no cyber threat is posed on the transmission business of the Petitioners due the leasing of spare fibers of OPGW to other entity.

h) Petitioners shall ensure that the OPGW fiber utilized under the Petitioners' proposed business remains distinct from the OPGW fibers used for transmission-related communication and SCADA-connectivity purposes.

i) Considering the criticality of sub-station and transmission lines operation the safety and security, the sub-stations and Transmission Lines shall be always be maintained.

Any security breach shall not be acceptable, and any incident of security breach shall be reported to the Commission immediately.

j) The Petitioners and the entity which will take the OPGW fiber on a lease basis, as applicable, shall comply with necessary statutory requirements and approvals as required for such entity to carry out the telecommunication business from the relevant Government Authorities.

k) The Petitioners shall furnish the details to the Commission as per Clause (3) of Regulation 4 of the Revenue Sharing Regulations.

l) The transmission licensees shall maintain separate accounts for each of the 'other businesses' and shall submit copies of the Balance Sheet, Statement of Profit and Loss, auditor's reports and notes on accounts to the Commission for every financial year in terms of the Regulation 7 of the Revenue Sharing Regulations.

45. The issue is answered accordingly.

Issue No 3: Whether there is any Cyber Security threat on the SCADA system vis a vis Grid Security, by allowing the Petitioners' proposal to use spare fibers of OPGW for data transfer activities.

46. Respondent MPPMCL has submitted that in a CEA's Standing Committee meeting on the Communication System Planning in Power Sector dated 09.03.2021, it has been discussed that the Communication network of Transmission System which is predominantly used for the purpose of SCADA and internal communication don't have the firewall and other security system in place and cyber security on the SCADA and internal communication which takes place either though OPGW cables or PLCC cable are not proper and weak. Therefore, if the OPGW fibers are being leased out or allowed authorized use of the OPGW fibers by a third party, i.e. by Respondent no. 20 SIL, will pose a great cyber security threat on the SCADA system vis-a-vis Grid Security. Further, CERC would not be having any control over SIL, and if in case of any cyber breach on the SCADA and internal communication took place due to fault or negligence of SIL, Petitioners will not be accountable for it.

47. Petitioners have submitted that MPPMCL's claim that the proposed business model will lead to cyber security threat and compromise grid security is a scurrilous claim,

ought not to be entertained by the court. Petitioners further submitted that MPPMCL is indirectly questioning the very basis of the Revenue Sharing Regulations and Section 41 of the Act in the present proceedings and no such objections were raised by MPPMCL when the Revenue Sharing Regulations were being promulgated and therefore MPPMCL has permanently waived all such objections. If MPPMCL's submissions are accepted, no transmission licensee can ever undertake any other business in accordance with the Revenue Sharing Regulations and Section 41 of the Act.

48. Petitioners submitted that in the proposed business model, the services to be provided are pertaining to the utilisation of the passive infrastructure/ spare optical fiber core/ pair to various Communication Service Providers (CSPs), which are completely distinct from the OPGW fibers used by the Petitioners for own transmission-related communication and SCADA-connectivity purposes. Since the end-to end-media i.e., the OPGW for transmission business vis-à-vis the OPGW for 'telecommunication business' are physically separate, there appears to be no potential for a cyber threat on account of carrying on the business proposed herein.

49. We have considered the submission of Petitioners, Respondent, Minutes of the CEA's Standing Committee meeting held on 09.03.2021 and relevant provisions under Act and Regulations.

50. Relevant extracts of the Revenue Sharing Regulations are as under:

"2. Definitions.

....

(6) "other business" means any business including telecommunication business other than the transmission business, carried out by a transmission licensee;

(7) "telecommunication business" means any business of telecommunication services by utilizing transmission assets: Provided that "Telecommunication Service" shall have the same meaning as defined in sub-clause (k) of clause (1) of Section 2 of the Telecom Regulatory Authority of India Act, 1997;

………………..

5. Intimation of other business: (1) A transmission licensee proposing to undertake other business shall give prior intimation to the Commission:

Provided that if other business is not telecommunication business, the transmission licensee shall seek prior approval of the Commission by filing a petition, as regards sharing of revenues derived from such other business;

Provided further that a transmission licensee having undertaken other business before commencement of these regulations shall give prior intimation or seek approval, as the case may be, within two months of coming into force of these regulations.

…………………..

8. Restrictions: (1) The transmission licensee shall not in any way, directly or indirectly, encumber its transmission assets to support other business.

(2) Any cost or revenue relating to other business shall not be added to the cost or revenue of the transmission business.

(3) Transmission assets utilised for other business shall not, in any manner, adversely affect inter-State transmission of electricity.

(4) In case the transmission licensee intends to form a subsidiary company, as defined under Companies Act, 2013, for engaging in other business utilizing the transmission assets, the transmission licensee shall seek prior approval of the Commission:

Provided that the transmission licensee shall indemnify the long term customers for any additional cost or losses or damages due to such subsidiary company."

As per the above, provisions to conduct other business has been included subject to certain restrictions as specified.

51. Relevant extract of the CEA's Standing Committee meeting on the Communication System Planning in Power Sector held on 09.03.2021 are as under:

"B.2.6 Cyber security policy for the ISTS communication network

The CTU in its agenda item informed that at present there are no firewall installed at substation level for protection of the ULDC network and following is proposed to address Cybersecurity aspects for Power System communication:

1. Firewalls to be installed at all existing ISTS/ISGS Substation between the path of SAS Gateways and FOTE for protecting data to RLDC with centralized management system with Server etc. Schematic diagram shown at Annexure B2(5).

2. Similar approach for protection/ security may also be adopted at STU, IPP nodes. This approach will not be effective unless all the users connected with the ISTS communication network shall adopt the same safety measure.

During discussion, CE, IT Division, CEA informed that substation communication protocols do not include cybersecurity features in their original standard. Simultaneous, cyber intrusions into multiple substations is a scenario that cannot be ruled out and can lead to catastrophic outages. To mitigate cyber attacks, firewalls are widely adopted as an access control method against hackers, however, they do not guarantee cybersecurity. Instances of firewalls being mis-configured and even if the configuration of firewalls are correct, it has vulnerabilities because they are not able to detect insider attacks and connections from the trusted sites. Hence, solutions based solely on firewalls can be inadequate. Further, IEC62351 for information security of power system control operations does not cover all cyber intrusions. Therefore, he suggested that a sub-committee be formed in this regard to deliberate on the matter exhaustively.

After detailed deliberation, Chairman, SCCSPPS, agreed with proposal of CE, IT Division, CEA regarding formation of sub-committee to discuss this matter in detail. Member may be asked to volunteer for the sub-committee.

………………………………

B.4 TSTRANSCO in its agenda item requested for modalities/clarification for:

1. Use of MPLS technology in power sector in place of existing SDH/PDH equipment

2. *Leasing of spare dark fibers of OPGW cable laid on EHT towers to telecom operators*

3. *Standardization of earthing practices for communication system in EHT substations*

1. Use of MPLS technology in power sector in place of existing SDH/PDH equipment: *TSTRANSCO proposal regarding adoption of MPLS technology in lieu of SDH/PDH was discussed. In this regard, CEA informed that some states like KSEB, TANTRANSCO and JUSNL have earlier proposed to adopt MPLS technology in place of SDH/PDH. As per their proposal, CEA advised them to consider MPLS technology as proposed by them subject to the compliance of relevant provisions of the Central Electricity Authority (Technical Standards for Communication System in Power System Operations) Regulations, 2020. CEA suggested that performance/working of MPLS technology employed by RRVPNL may be studied in detail before going ahead with its wider adoption.*

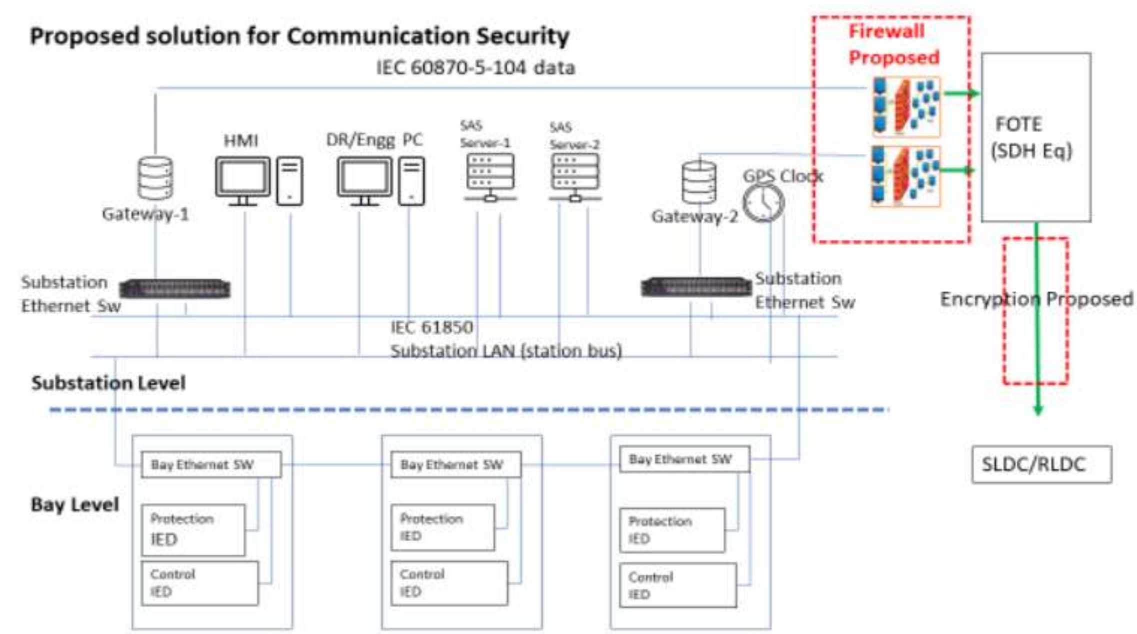
2. Leasing of spare dark fibers of OPGW cable laid on EHT towers to telecom operators: *CEA suggested that before leasing of dark fibers, TSTRANSCO may seek input/experience from POWERTEL and accordingly modalities may be framed.*

………………………………..

ANNEXURE B2(5)

....

Proposed Firewall:



…………………..”

As per the above, the matter pertaining to cyber security with respect to Power System communication and substation communication protocols and installation of firewall at substation level between the path of SAS Gateways and FOTE for protecting data to RLDC with centralized management system with Server etc, were discussed during the above-mentioned Standing Committee meeting. Further, on clarification sought by TSTRANSCO, in regard of leasing of spare dark fibers of

OPGW cable laid on EHT towers to telecom operators, CEA suggested that before leasing of dark fibers, TSTRANSCO may seek input/experience from POWERTEL and accordingly modalities may be framed.

52. We observe from the above that CEA has suggested that TSTRANSCO seek the input/experience from POWERTEL and to accordingly frame modalities before leasing dark fibers. We also observe from the CTU proposal, for installation of the firewall at the substation level between the path of SAS Gateways and FOTE for protecting data, that dedicated OPGW fibers are utilised for transmission of grid related data.

53. We observe from the RfP document issue by MPPTCL, as brought on record by MPPMCL, that the RfP has the following provision in respect of "Cyber Security Guidelines applicable for awarded Bidder(s)":

"2.1.7 Cyber Security Guidelines applicable for awarded Bidder(s):

a) Bidders shall follow all Cyber Security Guidelines not limited to the advisories, guidelines, requirements at present as well as in future, defined by MoP/ MeitY/ CEA/ CERT-In/ CERT-Trans/ CERT-Go/ CERC/ MPERC/ POSOCO/ WRLDC strictly and also mandatorily to follow CEA Cyber Security Guidelines 2021 or any other new guidelines issued by the Govt. of India time to time.

b) For the equipment in MPPTCL premises and connected on MPPTCL network, the Bidder shall update/replace the software/hardware timely as per requirement/ guidelines/ advisories without any additional cost to MPPTCL.

c) The Bidder shall carry out inspection or sample testing of the IT/OT equipment to be connected on MPPTCL network before the supply of the materials as per prescribed Annexure A & B of CEA Cyber Security Guidelines 2021.

d) The Bidder shall adhere to CEA Cyber Security Guidelines 2021 particularly Article 4 and Article 14 for Cyber Security Audit and VAPT wherever required."

As per the above, RfP issued by MPPTCL mandated that the awarded bidders shall follow all Cyber Security Guidelines not limited to the advisories, guidelines, requirements at present as well as in future, defined by MoP/ MeitY/ CEA/ CERT-In/ CERT-Trans/ CERT-Go/ CERC/ MPERC/ POSOCO/ WRLDC strictly and also mandatorily to follow CEA Cyber Security Guidelines 2021 or any other new guidelines issued by the Govt. of India time to time.

54. We observe that the transmission asset which will be utilised under the petitioners' proposed business is the spare fibers of OPGW, which is a passive infrastructure. We also observe that petitioners have submitted that the end-to end-media i.e., the OPGW for transmission business vis-à-vis the OPGW for 'telecommunication business' is physically separate, and prima facie there appears to be no potential for a cyber

security threat on transmission business on account of carrying on the telecommunication business by utilizing spare OPGW fiber.

55. Considering the above discussion, we direct that Petitioners shall strictly comply with the prevailing Cyber Security Guidelines and advisories, by MoP/ MeitY/ CEA/ CTU/ Grid-India/ CERT-In/ CERT-Trans/ CERT-Go. Petitioners shall strictly ensure that the OPGW fibers utilized under the Petitioners' proposed business model remain distinct from the OPGW fibers used for transmission-related communication and SCADA-connectivity purposes.

56. The issue is answered accordingly.

Issue No. 4: What shall be the methodology for sharing the lease amount received from the entities for utilizing the access of the spare fibers of the Petitioner's OPGW.

57. Petitioners have submitted that under the proposed model of business in collaboration with the Respondent No. 20, SIL (an associate company of the Petitioners), the revenue estimated to be derived on a per unit basis is INR 8,000 per fibers pair per km per annum for OPGW fibers, which is based on the rates mentioned in the tenders floated by various State Transmission Utilities (STUs), as tabulated below, and the nascent nature of the business, the fiber rates on OPGW have been assumed at the estimated average price of INR 8,000/- per fiber pair per km per annum:

STU/PSU	Fiber Type	Annual Leasing rate/FP/KM
BBNL	UG	6000
OPTCL	OPGW	7000
KSEB	OPGW	6000
AEGCL		12500
UPPTCL		12500

58. The Petitioners have submitted a report titled "Optical ground wire (OPGW) Dark Fiber - Bulk Leasing Rate Mechanism" prepared by KPMG capturing the data from the recent RfP published by eight STUs along with their proposed minimum floor price (varies from INR 12,500 and INR 23,100) for leasing per fiber pair per km per annum, basis which a weighted average for national level leasing floor rate has been derived equivalent to ~ INR 14,250 per fiber pair per km per annum. KPMG, under its report, recommended a business case for bulk leasing of OPGW fiber by KTL to a third-party,

where all 21 spare OPGW fiber pairs will be leased for the full length to a third party, irrespective of the length of OPGW actually utilised by the leasing entity. Considering the leasing rate as INR 14250 per fiber pair per km per annum, under direct leasing business model and monetisation ratio as 4% in the first year, considering the assets (313 Km of OPGW) of petitioner fall under Tire III cities, KPMG has prepared revenue projections indicating the cumulative free cash flows available with Petitioner No. 1 for the duration of 15 years is INR 14.4 crores translating to an overall NPV of such cash-flows/ benefits to INR 6.24 crores. KPMG translated this NPV i.e. INR 6.24 crores for bulk leasing model where KTL will lease all available spare 21 fiber pairs of OPGW, and derived a rate as INR 31,710 per route km per annum. KPMG has mentioned that the bulk leasing model shall ensure 100% monetisation of spare OPGW and a steady stream of revenue.

59. Petitioners have submitted that the Statement of Reasons of the Revenue Sharing Regulations records the comments of distribution utilities as requesting up to a 70% revenue share, which the co-Petitioners are ready and willing to share out of the gross revenue received by each co-Petitioner on account of the 'other business' with their respective LTTCs. Petitioners have submitted that assuming all 21 spare fiber pairs for the entire length of the transmission line(s) will be leased to a third party at a leasing rate of INR 31,710 per route km per annum, sharing 70% of this revenue with LTTCs will effectively be equivalent to reimbursing 70% of the total cost borne by the LTTCs for establishing the OPGW network for KTL assets in 13 years and 100% cost of the OPGW assets shall be recovered within 15 years of the OPGW leasing contract cycle.

60. Respondent MPPMCL during hearing on 25.04.2023, submitted that the revenue proposed to be earned appears to be on the lower side. MPPMCL has also referred to its recent RFP for MPPTCL fibers where the floor price has been specified as follows:

> ***"2.1.3 Floor Price (Reserve Price):***
>
> *The Floor price for leasing of dark fiber shall be Rs. 16,500/- per Fiber Pair per Km per Annum (including O&M charges) (exclusive of GST) for first year and escalation @ 5% per annum on compounding basis for subsequent years."*

61. We have considered the submission of Petitioners, Respondents and also perused the facts on the record and relevant provision of the Revenue Sharing Regulations.

62. Relevant extracts of the Regulation 5 and Regulation 6 of the Revenue Sharing Regulations are as under:

*"**5. Manner of sharing of revenue from other business**: (1) The transmission licensee shall share the revenue from the other business in the following manner:*

……………………….

***(b) Business other than telecommunication business**: In case other business is not telecommunication business, the sharing of revenue shall be decided by the Commission on case-to-case basis based on transmission assets utilized for such other business, the revenue derived or estimated to be derived from such other business and other details furnished by the transmission licensee under Regulation 4 of these regulations:*

Provided that the Commission shall provide an opportunity of being heard to the transmission licensee and the long term customers of the assets before deciding the manner of sharing of revenue.

***6. Reduction in Transmission Charges**: The revenue to be shared by the transmission licensee in accordance with these regulations shall be utilised towards reduction of monthly transmission charges payable by the long term customers of the transmission assets in proportion to the transmission charges payable by them to the transmission licensee:*

Provided that for a financial year, the revenue to be shared of the previous financial year shall be considered for reduction of monthly transmission charges."

As per the above, in case the other business is not a telecommunication business, the sharing of revenue shall be decided by the Commission on a case-to-case basis, and such revenue shall be utilised towards the reduction of monthly transmission charges payable by the long term customers of the transmission assets in proportion to the transmission charges payable by them to the transmission licensee.

63. We have also perused the Commission's order dated 30.11.2022 in Petition No. 247/MP/2021 on the matter of leasing of Land and/or space in Building, which is a transmission asset, by the transmission licensee Power Grid Corporation of India Limited, to its Wholly Owned Subsidiary Company (WOS) for undertaking Data Centre activities. The relevant extracts of the said order are as under;

"43. We observe that the proposed business of the Petitioner under consideration is limited to allowing use of land or space in the building which is covered under "Business other than telecommunication business" as per Section 41 of the Electricity Act and Regulation 5(1)(b) of the Sharing of Revenue Regulations for which the sharing of revenue shall be decided by the Commission on case-tocase basis.

*44. We observe that the data centre activities are being undertaken by the WOS in a phased manner and the business proposed by the Petitioner is at a nascent stage. Further, the Petitioner has not provided estimate of lease rent for the land or building at its Manesar substation based on evaluation by the external independent valuer. **We further observe that the Petitioner shall not incur any expenditure towards the data centre business and the same shall be taken up by the WOS. Accordingly, we are of the view that entire gross rental/ lease revenue (based on evaluation of external independent valuer) as received***

by the Petitioner from its WOS for use of the land and building at Manesar substation in terms of the Agreement, shall be fully shared by the Petitioner with the long term customers. Applicable taxes for such rental revenue shall be paid separately by the WOS to the Petitioner*. Accordingly, such revenue shall be utilised towards reduction of monthly transmission charges payable by the long term customers of the transmission assets in proportion to the transmission charges payable by them to the Petitioner as per Regulation 6 of the Sharing of Revenue Regulations.”*

As per the above the Commission directed that the entire gross rental/ lease revenue (based on evaluation of external independent valuer) as received by the Petitioner from its WOS for use of the land and building at Manesar substation in terms of the Agreement, shall be shall be passed on to long term customers.

64. We also observe from the KPMG report that the details of floor prices under the bids floated by eight STUs and OPGW monetization ratio in six states are as under:

<table>
<tr><th>Sr. No.</th><th>STUs</th><th>Floor rate/FP/km (INR)</th><th>Fiber route km</th><th>Fiber for leasing</th><th>RFP Release Dates</th><th>OPGW monetization ratio</th></tr>
<tr><td>1</td><td>APSFL (AP)</td><td>12,543</td><td>14,941</td><td>5*2</td><td>Oct-21</td><td>~20% - 25%</td></tr>
<tr><td>2</td><td>BSPTCL (Bihar)</td><td>12,600</td><td>7,500</td><td>8*2</td><td>Aug-22</td><td>25.8%</td></tr>
<tr><td>3</td><td>GETCO (Gujrat)</td><td>12,543</td><td>4,000</td><td>5*2</td><td>Feb-23</td><td></td></tr>
<tr><td>4</td><td>MPPTCL (MP)</td><td>16,500</td><td>4,000</td><td>4*2</td><td>Feb-23</td><td></td></tr>
<tr><td>5</td><td>UPPTCL (UP)</td><td>12,500</td><td>9,700</td><td>9*2</td><td>July-22</td><td>12.7%</td></tr>
<tr><td rowspan="2">6</td><td rowspan="2">AEGCL(Assam)</td><td rowspan="2">15,000</td><td rowspan="2">1,500</td><td rowspan="2">8*2</td><td>Jun-18</td><td></td></tr>
<tr><td>Dec-21</td><td></td></tr>
<tr><td>7</td><td>WBSETCL(WB)</td><td>20,700</td><td>5,000</td><td>-</td><td>Aprl-22</td><td>~20% - 25%</td></tr>
<tr><td rowspan="2">8</td><td rowspan="2">TSTRANSCO(TL)</td><td>23,100</td><td rowspan="2">7,800</td><td rowspan="2">-</td><td rowspan="2">Oct-21</td><td rowspan="2">16.1%</td></tr>
<tr><td>16,600</td></tr>
<tr><td>9</td><td>OPTCL</td><td>-</td><td>-</td><td>-</td><td>-</td><td>~6%</td></tr>
</table>

As per above, the Floor leasing rate of spare fiber ranges between INR 12500 and INR 23,100 per fibre pair per km per annum.

65. As, we have already decided that the proposed business model of the petitioner falls under the category of “business other than telecommunication business”, therefore the sharing of revenue has to be decided by the Commission in this case.

66. We observe from Para 64 above that the floor price of such leasing is varying from state to state and is ranging from ~ Rs12500 – Rs 23000 per fiber/km/annum and KPMG has also pointed out to different leasing rates depending upon the city tier. There is no single fair price available for leasing out of fiber pairs, which is applicable

across the country. We note that many States have called bids for leasing out available spare fiber pairs with respective STUs, which can serve as the yardstick for the leasing rate of Petitioner's fiber pairs. Hence, we are of the considered view that the lease rate for Petitioners shall be determined based on the latest awarded fiber pair lease rate of the State where the transmission line of the Petitioner is located. Suppose a transmission line is passing through multiple States, the total lease amount shall be determined based on the length of the line located in each State and latest awarded lease rate of fiber pair of corresponding states to derive the lease amount for the entire line. Therefore, the lease rate shall be equal to the latest lease rate, per fiber pair/km as awarded by the respective STU, in the last three years. In case, where the transmission line of Petitioners is passing through a State where STU has not awarded any fiber pair on lease in the last three years, average lease rate (as awarded by STUs) for neighbouring States in the last three years shall be taken for determination of lease rate for the Petitioner's line. The petitioners shall receive this lease amount from their associate company Sterlite Interlinks Limited (SIL).

67. The petitioners may note that we are not approving the "Bulk leasing model" as proposed by the petitioners considering that the States have been leasing out spare OPGW fiber pairs on each fiber pair basis. It is up to the Petitioners to lease out all spare fibers pairs or some of the fiber pairs, subject to conditions stipulated in the instant Order, but the price shall be applicable for each fiber pair/km/annum.

68. As regards revenue sharing with LTTCs, we have carefully perused the proposal of the Petitioners. The Petitioners in their submission have stated that they are ready and willing to share 70% of the gross revenue received by each of the co-Petitioner on account of the 'other business' with their respective LTTCs, when the co-Petitioners are offering access rights to spare OPGW capacity on a standalone basis, to their associate company, SIL. We note that Petitioners' business is in a nascent stage where revenue received from leasing spare fibers shall be limited, and the expenditure to be incurred by the Petitioner to start the proposed "other business" is yet to be established. Therefore, we agree to the Petitioner's proposal to share 70% of the gross lease revenue as received from their associate company ('Sterlite Interlinks Limited'- 'SIL') with their respective long term transmission customers, in terms of the lease rate specified at Para 66 of this Order. Accordingly, such 70% of the gross lease revenue shall be utilised towards reduction of monthly transmission

charges payable by the long term transmission customers. Any tax liability arising out of such lease revenue on the petitioners shall be paid separately by SIL to the Petitioners.

69. The Petitioners shall furnish details of the other business in terms of Regulation 4(2) and Regulation 4(3) of the Revenue Sharing Regulations every year. Further, the Petitioners shall particularly furnish details of revenue received (fiber-wise) and expenditure incurred (with proper break-up) in carrying out 'Other business' at the end of each financial year. Further, since the Petitioners are in nascent stage in respect of leasing of spare fibers of OPGW, we direct that Petitioners shall approach the Commission after 2 years of issue of this Order with all audited details of revenue earned by them and expenditure incurred by them in carrying out 'Other business' as well as of their associate company (SIL) to whom the fibers has been leased out, based on which the Commission shall consider re-determination of lease rates of fiber pairs and sharing of revenue earned from the such business.

70. The issue is answered accordingly.

71. The Petition No. 160/MP/2022 is disposed of in terms of the above.

Sd/	Sd/	Sd/	Sd/
(P.K. Singh)	**(Arun Goyal)**	**(I.S. Jha)**	**(Jishnu Barua)**
Member	**Member**	**Member**	**Chairperson**