Equivalent Generation from Grid side	=Syn Reactance x Fault MVA supplied by Grid= 0.31 x 925.03 MVA= 286 MVA		
Minimum Support provided by Grid is the Minimum of 122.22 MVA & 286 MVA	122.22 MVA		
Cost of No load Loss in KVA/Month Considering 0.3% of the Trf Capacity as No load Loss at P.F-0.1(No load loss of Transformers are normally in the range of 0.3 to .5% of Capacity of Transformers)	=20376 MVA x0.1 x 0.003 x 24Hrs x 30 days=4401 MUs =4401000 Kwh(Units) Considering the cost of power by CGPs @ Rs 5.75 per Unit, the total cost = Rs 5.75 X 4401000 Units=Rs2,53,05.750(INR) Cost of power per kva/Month=Rs 1.24		
Transmission Charge considering the Total ARR, Generation Capacity etc per KVA/Month	= 925.54 Cr/(14830 MW*1000/0.9*12)=46.81 per KVA/Month		
GSC as per Base MVA Support method	= Cost of Generation x (MVA Support by Grid(in Rs) – Contract demand – Power Exported to Grid by CGPs in Rs) + No load cost of power(Rs)		

Taking the above required Data from the above Table, we proceed to calculate the GSC of M/s IFFCO as follows:

MVA Support By Grid= 122.22 MVA(RTC)= 122220 KVA

MVA Support by the CGP( IFFCO)= 30.963 MVA = 30963 KVA

Power Exported = NIL as CGPs are at present on Zero Export Mode

Cost of Transmission Charge Per KVA/Month= Rs 46.81(Earlier determined)

Cost of No Load Loss = Rs 1.24

Contract Demand = 11.0MVA

Total Support Received by M/s IFFCO/Month in Rs = Rs  $46.81 \times 1000 \times (122.22 \text{ MVA} - 30.963 \text{ MVA}) = \text{Rs } 42,71,740.00$ 

GSC Received by IFFCO per KVA/month = Cost of No Load Loss + Total Support Received By IFFCO/Month/KVA(Rs) =Rs 1.24 + Rs 42,71,740/122220= Rs 36.19/kvA/Month.

Total GSC in Rs/Month = GSC x (Installed Capacity – CD – Export)

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i.e. Rs 36.19 ( 122220KVA- 11000KVA - 0) = Rs 40,25,051.00/Month

Effective GSC/KVa/Month =Rs 40,25,051 / 122220 = Rs 32.93/KVA/Month (For IFFCO)

 That, similar examples are taken for other CGPs and a list shown in Tabular form enclosed hereunder for kind appreciation of Hon'ble Commission.

CGP Name	Installed Capacity in MW	Voltage level	Contract demand	Synchronous Reactance	GSC in Rs/ KVA/ month
Vedanta	1215	220	66.66	0.23	Rs.12.25
BPPL	135	132	5.56	0.23	Rs. 27.23
Tata Power	135	220	34	0.35	Rs.35.43
JSPL, Angul	810	400	55.56	0.22	Rs.37.93
Bhusan	506	220	111.1	0.23	Rs. 29.32
Aarati	40*	132	11.1	0.23	Rs. 31.27
Bhusan Meramundali	740	220	112	.24	Rs 34.51
Hindalco	467.5	220	20	.19	Rs 33.66
Aditya Al	900	220	55.56	.23	Rs 28.67
IFFCO	110	132	11	.31	Rs 32.93
Average					Rs 30.41

<sup>\*</sup>Installed Capacity of Aarati Steels is 90MW.On the day of test 50MW Generator was out of service.

- 50. That the Average of these comes as Rs 30.41 per Month per KVA.
- 51. That it is also observed that, gradually when the Grid Size / Quantum of power handling by the Grid increases in future, the GSC Charge of CGPs will come down and will be acceptable to the CGP owners.
- 52. That the petitioner craves leave to make further additional submissions in the interest of justice and in the interest of justifying OPTCL's claim for such charges.



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## **PRAYER**

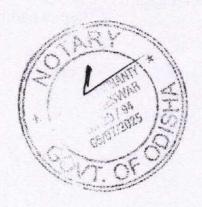
That the Hon'ble Commission may please be gracious enough to accept the petition and approve the proposed Grid Support Charge @Rs 30.41/KVA/Month and issue appropriate order in this regard.

That for the above act of kindness the petitioner (OPTCL) as in duty bound shall ever pray.

By the Applicant OPTCL
Through

(Biswaranjan Mishra)
Sr. General Manager (RT & C)
OPTCL

Place: Bhubaneswar Date: 23.09.2020



## BEFORE THE ODISHA ELECTRICITY REGULATORY COMMISSION CHUNOKOLI, SAILASHREE VIHAR, BHUBANESWAR.

CASE NO: FILING NO-

IN THE MATTER OF:

An application for Determination and approval for levy of Grid Support Charges (GSC) for industries having Captive Generating / Cogeneration Plants and running in parallel

with the Grid of Odisha Power Transmission Limited.

AND

IN THE MATTER OF:

Odisha Power Transmission Corporation Limited, Janpath,

Bhubaneswar-7510022

.....Applicant

## AFFIDAVIT

I, Biswaranjan Mishra, son of Umesh Chandra Mishra, aged about 55 years, residing in Shreevihar, Patia, Bhubaneswar-751 031, do solemnly affirm as follows:

That, I am the Sr General Manager, Regulation, Tariff & Commercial, OPTCL, and am 1. duly authorized by the said Applicant to make this affidavit on its behalf. 2.

That, the statements made in Paragraphs hereinabove are based on official information and I believe those to be true

DEPONENT

Place: Bhubaneswar Date: 23.09.2020

Biewaranjan listan (Biswaranjan Mishra) Sr. General Manager (RT & C)

OPTCL

YORN DEFORE ME

NOTARY

Requ. No. ON 20/94 382, Shoi Nagar, Endkamerwar 75 mg