

KARNATAKA ELECTRICITY REGULATORY COMMISSION,
BENGALURU

Dated : 14th May, 2018

Present:

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| 1. Sri M.K. Shankaralinge Gowda | - Chairman |
| 2. Sri H.D. Arun Kumar | - Member |
| 3. Sri D.B. Manival Raju | - Member |

In the matter of revision of
'WHEELING AND BANKING CHARGES FOR RENEWABLE POWER PROJECTS'

I. Preamble:

1. The Commission, under the provisions of the Electricity Act, 2003, has issued the KERC (Terms and Conditions for Open Access) Regulations, 2004. Regulation 11 of the said Regulations specifies the Open Access Charges payable by an open access customer which, among other things, include transmission charges, wheeling charges and cross subsidy surcharge. Accordingly, the Commission had determined the transmission charges, wheeling charges and cross subsidy surcharge for Open Access transactions vide its Order dated 9th June, 2005. In the said Order, at Paragraph-7.04, while considering the need for preferential treatment for power supply under the Open Access from non-conventional sources of energy, the Commission held as follows :

"The Commission notes that the concept of open access has been introduced to bring in competition so that consumer can get power at competitive rates. Since, at present, projects based on renewable sources cannot compete with

conventional sources of energy, the Commission decides that concessional wheeling charges needs to be extended to renewable sources of energy as in the neighbouring states in order to promote NCE sources under open access."

In the same Order, at Paragraph-9.07, the Wheeling Charges for the NCE Projects have been determined, which read thus:

"9.07 Wheeling charges for NCE projects:

Considering the discussions at Sl.No.4 above, the Commission determines the overall wheeling charges payable by NCE sources as 5% of the energy input into the system. Other than this wheeling charge, they shall not be liable to pay any transmission charges or wheeling charges either in cash or kind as determined in the preceding sections of this order. However, surcharge shall be payable where the wheeling of energy is other than for their own use."

In the same Order, at Paragraph-7.06, while considering to extend the Banking facility for the Renewable Sources of Energy, the Commission decided to allow Banking facility in respect of Wind and Mini-Hydel Projects subject to payment of difference of UI charges between the time of injection and the time of drawal of power from these sources on payment of Banking Charges at 2% of the input energy.

It may be noted that, in the same Order, while working out the normal Wheeling Charges applicable for the consumers availing the Open Access, Network Charges, in cash and line loss, in kind, as determined in the Tariff Order, 2003 were adopted. However, the concessional Wheeling Charge for the NCE Projects was provided as noted above. This concessional Wheeling Charge included both Network Charges and line loss. The same concessional

Wheeling Charges for the NCE Projects has been adopted in the subsequent Orders referred to, hereinafter.

2. The Commission, vide its Order dated 11.7.2008 had approved the standard Format of the 'Wheeling and Banking Agreement' for RE Projects. In the same Order, it is specified that the Wheeling and Banking Charges as determined in the Order dated 9th June, 2005, shall be applicable to the Renewable Energy Projects for a period of 10 (ten) years from the date of commercial operation of the Project.
3. In the subsequent yearly Tariff Orders, the Wheeling and Banking Charges at 5% and 2%, respectively, of the energy injected into the Grid, for the RE Projects, have been continued, as specified in the Order dated 09.06.2005.
4. The Banking facility to Solar Power Plants was introduced, for the first time, by the Commission, by the Order dated 22.03.2013, on the same terms and conditions as specified in the Commission's Orders dated 09.06.2005 and 11.07.2008, as applicable to the Wind and the Mini Hydel Power Plants.
5. In the meanwhile, the ESCOMs had expressed that the concessional Wheeling and Banking Charges for the RE Projects, fixed by this Commission, were resulting in a strain on their finances and, at the same time, some of the RE generators requested for introduction of a regime of non-concessional Wheeling and Banking Charges, as the present system of concessional Wheeling and Banking Charges rendered them ineligible for participation in the Renewable Energy Certificates market, as per the prevailing Regulations for obtaining the Renewable Energy Certificates. On these representations, the

Commission issued a Discussion Paper, conducted the required proceedings and decided, on 09.10.2013, as follows:

“(i) The Wheeling and Banking charges fixed in the Commission's Order dated 09.06.2005 and continued thereafter, including in the Commission's Tariff Order dated 06.05.2013, shall continue till 31.03.2014, in respect of RE generators, except captive generators opting for participation in the REC mechanism.

(ii) Captive Generators who desire to avail of the benefit of Renewable Energy Certificate [REC] mechanism, shall be entitled to exercise an option to that effect. On exercise of such an option, they shall be liable to pay the normal transmission, wheeling and other charges as determined in the Tariff Orders in force. They shall be allowed banking facility, which shall be on a monthly basis instead of annual basis, as proposed in the Commission's Discussion Paper dated 20.06.2013 referred to above. The excess energy injected at the end of each calendar month shall be deemed to have been purchased by the Distribution Licensee of the area where the generator is situated and shall be paid for at the APPC rate determined by the Commission from-time-to-time.”

6. In the Order dated 10.10.2013. 'In the matter of: Determination of tariff for the grid interactive Solar Power Plants, including the Roof Top and the Small Solar Photo Voltaic Power Plants', considering the request of the Solar generators, the Commission decided not to levy any Wheeling and Banking Charges or Cross-Subsidy Surcharge on the Solar generators, who sell electricity on Open Access within the State as a promotional measure, in view of the high cost of generation from the Solar Power Plants.
7. Subsequently, the Commission issued a Discussion Paper in the matter of wheeling and banking charges on 11.06.2014, held a Public hearing in the matter on 25.06.2014 and after considering the comments / suggestions /

objections from interested persons and the general public, decided as follows

in its Order dated 04.07.2014:

- “(1) The Wheeling charges shall be 5% of the injected energy for wind, mini-hydel, Bagasse based co-generation plants and Biomass based projects;*
- (2) The banking charges shall be 2% of the injected energy and shall be applicable for wind and mini-hydel projects only;*
- (3) The annual banking facility is continued for non-REC wind, mini hydel and solar energy projects and henceforth the banked energy unutilized at the end of the wind year, water year or financial year, as the case may be, shall be deemed to have been purchased by the Distribution Licensee of the area where the generator is located and shall be paid for at 85% of the generic tariff determined by the Commission in its latest Orders in case of wind, mini-hydel and solar projects. The Commission decides to discontinue the differential UI charges payable, to account for the difference in the power purchase cost between the time of injection and drawal, for both existing as well as new projects utilizing the banking facility.*
- (4) These charges shall be applicable for the above mentioned renewable energy projects wheeling energy to consumers within the State of Karnataka and commissioned on or before 31.03.2018 and shall be valid for a period of 10 years from the date of commissioning of the project or units;*
- (5) For REC route captive power plants, the wheeling and banking charges as specified in the Order dated 09.10.2013 shall continue.”*

8. Further, the Commission on 08.07.2014, approved standard wheeling and banking agreement, for both the REC and the non-REC route of RE projects.

9. The Commission also issued a clarificatory Order on 12.07.2014, with respect to the Orders dated 04.07.2014 and 08.07.2014, as follows:

- "1) The decision of the Commission, in the Order dated 04.07.2014 that, the payment by ESCOMs at 85% of the generic tariff for the banked energy unutilized at the end of the wind year, water year or financial year, as the case may be, shall be applicable henceforth for both existing as well as new projects, commissioned on or before 31.03.2018 utilizing the banking facility.*
- 2) The standard wheeling and banking agreement formats approved vide Order dated 8th July, 2014, shall be applicable to all the agreements to be executed on or after 8th July, 2014."*

10. Further, on 18.08.2014, the Commission passed the Order 'In the matter of: Wheeling Charges, Banking Charges and Cross-Subsidy Surcharge for Solar Power Generators', specifying as follows:

- "1) All the solar power generators in the State achieving commercial operation date (COD) between 1st April, 2013 and 31st March, 2018 and selling power to consumers within the State on open access or wheeling shall be exempted from payment of wheeling and banking charges and cross subsidy surcharge for a period of ten years from the date of commissioning. This is also applicable for captive solar power plants for self-consumption within the State.*
- 2) The Captive solar power plants opting for Renewable Energy Certificates, shall pay the normal wheeling, banking and other charges as specified in the Commission's Order dated 9th October, 2013."*

11. The Commission further issued Orders on 21.11.2014 and 26.02.2015 amending certain clauses of the WBA.

12. Considering that the Orders dated 04.07.2014 and 18.08.2014, relating to wheeling and banking charges, are valid for the Projects commissioned upto 31.03.2018, for a period of 10 (ten) years from the date of the commercial

operation of the Projects, it was found necessary to take a decision on the determination of the wheeling and banking charges that would be applicable for both Solar and non-Solar RE Power Projects under the non-REC route, commissioned on or after 01.04.2018. Further, during each proceedings conducted for determination of the Wheeling and Banking Charges for the RE generators, which culminated in passing of the Orders dated 09.10.2013, 04.07.2014 and 18.08.2014, the State Utilities had been requesting for enhancement of the Wheeling and Banking Charges. However, considering the overall facts and circumstances then prevailing, the Commission was of the view that, as a promotional measure, the concessional Wheeling and Banking Charges, as it existed, should be continued. Further, during the meetings held with the ESCOMs by the Commission, the ESCOMs had been expressing that the concessional Wheeling and Banking Charges were adversely affecting their finances. Therefore, the Commission issued the present Discussion Paper with the proposal for revising the Wheeling and Banking Charges, as indicated below:

“III. Commission's Proposal:

1. Wheeling charges:

- a. The Commission proposes to levy 25% of the Normal Transmission charges and/or wheeling charges payable in cash, as determined by the Commission in its Tariff Orders issued from time to time, for all the RE sources transmitting/wheeling electricity using the network of transmission licensee/distribution licensee, as the case maybe.*
- b. In addition to the above, applicable losses, as approved by the Commission from time to time, shall be deducted from the net energy injected to arrive at the quantum of wheeled energy.*

2. *Banking Charges:*

The Commission proposes to continue banking charges at 2% in kind of the injected energy.

IV. *Applicability:*

i. *The Commission proposes to levy the above charges to all the RE projects under non-REC route, which are under the WBA, both existing and new projects.*

ii. *For REC route projects, the charges as specified in the Commission's Order dated 09.10.2013, shall continue and the banking charges for such projects shall also be at 2% in kind of the injected energy."*

13. The Commission, in addition to hosting the above Discussion Paper on its website, had issued notification inviting comments on 20.01.2018 in English Newspapers namely, Deccan Herald & Times of India and Kannada newspapers namely, Udayavani & Vijay Karnataka. Further, the Commission held a public hearing in the matter on 15.03.2018, duly notifying the public hearing notice in English newspapers namely, Deccan Herald & Times of India and Kannada newspapers namely, Udayavani and Vijay Karnataka, on 21.02.2018.

I. *Gist of Stakeholders' comments / suggestions/views:*

Several Stakeholders, in response to the notices issued, submitted their written comments/suggestions/views to the Discussion Paper and also made submissions during the public hearing. The list of stakeholders who submitted their written comments/suggestions/views is enclosed at Annexure-1 and those who made submissions before the Commission during public hearing is at Annexure-2. The Gist of the Comments submitted are as under:

1. *Generators/Project Developers:*

- i. The Investments in RE Sector have been made in view of the concessional wheeling and banking charges, specified in the Commission's Orders dated 04.07.2014 and 18.08.2014. IPPs have entered into long-term agreements with HT consumers based on capital investment made on the project and concessions extended. Thus, the financial viability of the projects expected to be commissioned by 31.03.2018, is totally based on 'nil' Wheeling & Banking charges (W&B Charges) and Cross Subsidy Surcharge (CSS). Levy of W & B charges has to be done in a gradual manner and sudden surge in such charges would make the projects unviable. The statement that the RE power plants can compete with conventional Power Plants is correct for the new RE projects and not for existing projects in which investments was made from 2013-14 onwards, when the capital costs were quite different. The payback period for existing projects is more than seven years with debt tenure of 10-12 years. Thus, the existing projects are yet to recover their investments and therefore, the existing regime of concessional W&B charges has to be continued. Any change in W & B charges, would have adverse impact on future investments in the State and any retrospective effect will threaten the ability of promoters to service their debt, resulting in they turning into Non-Performing Assets. The Government of India, has extended the benefit of 'nil' transmission charges for inter-state RE transactions, which needs to be followed by the State, as electricity is a concurrent subject under the Constitution. The existing charges should be continued to promote investments in the State.

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- ii. At present, in addition to CSS, SLDC charges and DSM charges are being levied. The OA charges in Tamil Nadu is less than that in Karnataka, but in Maharashtra it is more. However, in Maharashtra, demand charges are reduced to the extent of CUF of the installed capacity. With the present OA charges in Karnataka, the generator would get a price of about Rs.3.92/-, which is just manageable. Any imposition of additional charges would make the projects unviable. RE rich States referred to in the Discussion Paper, have not introduced the normal charges retrospectively.
- iii. Since the Commission had provided long-term clarity [10-years] regarding W& B charges, substantial wind & solar capacity was added in the State during the last two years. The encouragement given to RE projects should not be withdrawn, as it would affect future investments in the State and investors would lose confidence due to regulatory uncertainty, that too after a lapse of four years after passing of the Orders.
- iv. There is a need to promote RE sources in view of Articles 48(A) and 51A(g) of the Constitution which require the States and the citizens to protect and improve environment as pointed out in Hon'ble Supreme Court's Order in (2007) 12 SCC 2010 and APTEL's Order in 57/2010, 2008(ELR)(APTEL) 23. As held in the Orders of the Hon'ble Supreme Court in DERC Vs BESE Yamuna Power Ltd, reported in (2007) 3 SCC 33, AIR 1971 of 1021, State of Rajasthan Vs Basanth Agro-Tech reported in [2013]15 SCC1, etc, the benefit of concessional charges extended in the Orders dated 04.07.2014 and 18.08.2014, issued by the Commission cannot be withdrawn or modified on

the principles of legitimate expectation and promissory estoppel. The Commission does not have the powers to review its own orders, as there is no specific provision in the Electricity Act, 2003 for it and the earlier Orders have reached finality. As held by the Hon'ble Supreme Court in CA No. 1710 of 1991 on the principles of promissory estoppel, the current concessions have to be extended to all RE projects that get commissioned on or before 31.03.2018. Further, such concessions could be withdrawn, if at all there is public interest involved and in the present case, there is no public interest involved as the Discussion Paper issued by the Commission refers only to the financial loss of ESCOMs.

- v. With a major portion of demand in the State being met by Hydro-power, any failure of monsoon, would result in power shortage and in such a case RE sources would be beneficial. Further, as can be seen from the data for the last five years upto 2017, there is power shortage in Karnataka, which necessitates addition of capacity. Any additional RE capacity would help in reducing shortages. Also the capacity under OA would help ESCOMs to reduce the costly power purchase. In Karnataka only 7% of wind potential is harnessed, when compared to other States like Tamil Nadu, Rajasthan and MP. Therefore, the existing charges should be continued.
- vi. The bid cost below Rs.3.00/unit is for large projects, where economies of scale, zero W& B charges and other benefits are available. Some of the risks like land acquisition, evacuation etc., are borne by the Central/State Governments in the Bid Route projects. However, for small projects, the cost of power is more than Rs.3.00/unit, as they do not get such benefits. The

proposition that the cost of solar projects is less than Rs.3.00/unit is not correct for OA projects, whose present cost is in the range of Rs.4.00 to 5.00/unit with anti-dumping duty and other costs. Hence, promotional W & B charges needs to be continued. The total landed cost under OA should be less than the HT-tariff. Therefore, all other costs like CSS, additional surcharge etc. needs to be discussed in the same order to arrive at the landed cost. For existing projects, the wheeling charges should be fixed such that after paying all the OA charges, the generator should be able to sell to the consumer allowing 50 paise/unit discount on the retail supply tariff. Further, OA projects help in optimizing grid utilization, reduces capex involved in networks expansion due to local consumption and generates employment for local people. Hence, such projects need to be encouraged.

- vii. The Commission had noted that ESCOMs had not furnished details of adverse impact of existing W & B charges. Therefore, Commission may reconsider the proposal and direct the ESCOMs to provide impact analysis of W& B charges. Even though OA has increased by 50% in FY 17, its share is only 4% of the total energy sold. Thus, OA transaction is miniscule and any incentive provided to such consumers would not financially impact the ESCOMs.
- viii. In order to meet their RPO, companies have signed PPAs with solar generators to be commissioned before 31.03.2018, keeping in view the benefits that would accrue to these projects as per the Orders dated 04.07.2014 & 18.08.2014. These benefits would be denied with the proposed

charges and the cost of power purchase with wheeling charges would not be viable as tariff of smaller size solar projects are higher compared to large projects under bidding.

- ix. Sun Group, while welcoming the introduction of W & B charges, however, has requested for to 10-15-year clarity on all charges for enabling raising of finances. As long as there is long-term visibility and the landed cost of solar is Rs.4.50/unit without antidumping duty, Solar developer would pay network charges.
- x. Solar power is infirm and transmission charges in Rs./MW/month is not justified. With CUF of 19%, the charges work out to 16 to 17 paise/unit. Ideally it should be 4 to 5 paise/unit. The proposed losses would have a tariff impact of 23 paise/unit and it should be restricted to 10% of normal losses. IPPs are not responsible for losses and losses depend upon the network maintained by the utilities. Therefore, IPPs should not be made to bear such losses.
- xi. The wheeling charges and losses should be confined to the ESCOM where the generator is situated, if such transactions involve more than one ESCOM, as energy flow is notional. There should be different OA charges for different RE sources, considering different CUFs.
- xii. No transmission and wheeling charges should be levied on the banked energy remaining at the end of the banking period, as the banked energy

is sold to utilities. The banked energy should be interpreted as sale to utility and paid at APPC rate.

- xiii. The Banking charges should be on banked energy and not on injected energy. Banking charges should be reduced to 1%.
- xiv. Six-months banking period with ToD slots would affect solar projects considerably. Therefore, it needs to be reviewed. Further the annual banking facility, should be restored as only two months would be available for consuming the banked energy, if banking is restricted to six months.
- xv. Some of the projects have got delayed due to the implementation issues and, it would be difficult to bear the proposed wheeling and banking charges. Therefore, the existing W & B charges should be extended to such projects for six months.
- xvi. Graphite India, has submitted that, while allotting the project, the State Government had assured 10% of energy generation as W & B charges. Further, as per the agreement with the erstwhile KEB, the banking arrangement was on water year basis. As its project is a run of the river project, the reduction of banking facility to six months and introduction of ToD based banking, would result in huge financial loss to the Company. Therefore, the W&B Agreement should be kept unchanged for existing IPPs.
- xvii. ITC Ltd., has suggested that if it is inevitable to introduce the proposed charges, it would be prudent to consider 5% of normal transmission charges

and to continue the wheeling charges at 5% in kind and banking charges at 2%.

1. ESCOMs:

a. BESCOM:

- i. The Wheeling charges should be raised to 12% in kind considering FY17 approved losses and 30% of the injected energy in cash. Further, CPPs have to pay normal wheeling charges which is to be made applicable to IPPS also, which are increasing in number.
- ii. The banking charges of 2% fixed in 2005 is continued and has to be increased to 10%, as in Tamil Nadu.
- iii. RE sources who desire to wheel electricity to more than one installation should pay 5-paise/unit on energy fed to the DISCOM where power is consumed and the drawal/additional HT consumers opting for wheeled energy from IPPs should be limited to 2 or 3, depending on the maximum RE Capacity.

b. MESCOM:

While wheeling charges should be revised upwards, the Commission should set a definite period [say 2 or 3-years] on the applicability of the Order and the transmission & wheeling charges, in cash should be reviewed, so as to make it equal to the normal charges gradually.

c. CESC

- i. Total energy procured in CESC area under OA for FY17 & FY 18 (upto December) are 456.26 MU and 336.01MU respectively and RE wheeled is

totally at 331.70 MU for these two years causing loss of about Rs. 218.92 Crores (from Wheeling and Banking charges and cross subsidy surcharge)

If the trend to buy from OA continues, CESC would lose revenues.

ii. As per the proposed charges, CESC would get Rs. 15,12,850/- per MU and CESC would lose cross subsidy of Rs,22,21,400/- per MU. Hence, 50% of normal wheeling charges in cash or gradual increase in wheeling charges with 2% escalation per annum, should be brought in.

2. Bankers

i. SBI, Kumara Park West, Bengaluru:

The bank has funded RE projects, considering cash flows based on the Order of July,2014 of the Commission. Therefore, SBI has requested that the terms laid down in Order dated 04.07.2014 should be honoured and the Commission should refrain from modifying the existing guidelines for commissioned projects.

ii. Corporation Bank, Corporate Banking Branch, Mission Road, Bengaluru:

The bank has assessed the viability of the projects while funding, considering the various expenses, including operational and regulatory charges. The proposed charges, would affect the repayment of loan. The agreement entered into by ESCOMs indicate 7% W & B charges for a tenure of ten years. Therefore, the present hike for mini-hydel projects should be deferred till the period of 10-years from the CoD.

3. Others:

BMRCCL: W &B charges as proposed are reasonable.

II. Commission's views and Decisions:

(a) Before considering the issues involved, the scope of the proposal made in the present Discussion Paper may be noted thus:

(i) The Order dated 11.07.2008 specified that the Wheeling and Banking Charges, as determined in the Order dated 09.06.2005, shall be applicable to the RE Projects for a period of 10 (ten) years from the date of the commercial operation of the Project. The subsequent Orders dated 04.07.2014 granting the concessional Wheeling Charges for Wind, Mini-Hydel, Co-gen and Biomass based Power Projects and dated 18.08.2014 exempting the Wheeling and Banking Charges and the Cross-Subsidy Surcharge for the Solar Power Projects, are made applicable for a period of 10 (ten) years, from the date of the commercial operation of the concerned RE Project, commissioned upto 31.03.2018. The effect of the various Orders, noted above, granting the concession in / exemption of the Wheeling Charges for the RE Project would reveal that: (1) the said concession in / exemption of the Wheeling Charge is applicable for a period of 10 (ten) years from the date of commercial operation of the RE Project and after the lapse of the 10-year period, from the date of the commercial operation, such Project is liable for payment of the usual Wheeling Charge; and (2) a RE Project, commissioned on or after 01.04.2018, cannot claim any benefit from the above Orders regarding the concession in / exemption of the Wheeling Charge / Banking Charge / Cross-Subsidy Surcharge, as the case may be.

(ii) Therefore, the Commission has issued the present Discussion Paper, proposing the levy of 25% of the normal Transmission Charges and/or Wheeling Charges, payable in cash, as determined by the Commission in its Tariff Orders issued from time-to-time for all the RE sources transmitting / wheeling electricity using the network of the Transmission Licensee / Distribution Licensee, as the case may be. The Commission has also proposed to deduct the applicable transmission and distribution losses, in kind, from out of the net energy injected to arrive at the quantum of energy that could be wheeled. The Commission has further proposed to levy the above-stated Wheeling Charge, in cash, and the line loss, in kind, to the new RE Projects to be commissioned on or after 01.04.2018 and for the existing RE Projects which have not completed the 10-year period from COD.

(iii) The Commission has proposed to continue the Banking Charges at 2%, in kind, of the injected energy, where the banking facility was extended. The effects of this proposal are: (1) the RE Projects which have completed the 10-year period from the COD could claim the banking facility upon payment of 2%, in kind, of the injected energy, though they are liable to pay the normal Wheeling Charges, in cash, and the line loss, in kind; and (2) the Solar Power Projects to be commissioned on or after 01.04.2018 could obtain the banking facility upon payment of 2%, in kind, of the injected energy.

(iv) The proposals in the Discussion Paper are confined to the revision or otherwise of the Wheeling Charge, payable in cash, and the line losses, payable in kind. The Discussion Paper does not propose to withdraw the exemption granted to the Solar Power Projects from payment of the Cross-

Subsidy Surcharge, granted in the Order dated 18.08.2014. In the same manner, the Discussion Paper does not propose to continue the exemption from payment of the Cross-Subsidy Surcharge on the Solar Power Projects, to be commissioned on or after 01.04.2018. Therefore, the Solar Power Projects, commissioned on or after 01.04.2018, are liable to pay the Cross-Subsidy Surcharge.

(v) The present Discussion Paper is confined only to the RE Projects, which have not yet completed the 10-year period from the date of the commercial operation, as on 31.03.2018, and the RE Projects that would be commissioned on or after 01.04.2018, for deciding upon question of levy, or otherwise, of 25% of the normal Transmission Charges and/or Wheeling Charges, payable in cash, as applicable to the other OA consumers, and also for deciding the question of deducting the applicable line losses, out of the net energy injected.

(b) The stakeholders have contended that, the Commission cannot withdraw or modify the concession / exemption, already granted in its various Orders, on the principle of 'promissory estoppel'. Further, they have contended that, the existing RE Projects have incurred huge Capital Costs and the pay-back period of the debts for the existing RE Projects is more than 10-12 years, thus the existing Projects are yet to recover their investments and, therefore, the concessional Wheeling Charge should be continued. They have further contended that, the same is true in the case of Solar Power Projects, which have incurred huge Capital Costs, compared to the other Projects like, Wind and Mini-Hydel Power Projects. It is further contended by them that, any

withdrawal or modification of the concession / exemption already granted, before the expiry of ten years from the date of the commercial operation of the Projects, would amount to applying the new rates with retrospective effect, which is inadmissible in law. It is also contended that, there is no substantial change in the circumstance or there is no public interest involved in withdrawing or modifying the concession / exemption already granted.

- (c) The Commission notes that, the stakeholders (RE Project Developers) have put forth their views, confining to oppose the proposal to levy 25% of the normal Transmission Charges and/or Wheeling charges, payable in cash, and the proposal to deduct the line losses, in kind, out of the injected energy, in respect of the RE Projects, which have not yet completed the 10-year period from the date of commercial operation. They have contended to retain the existing concessional Wheeling Charge of 5%, in kind, of the injected energy in respect of such existing Projects. However, they have not put forth their views on the levy of 25% of the normal Transmission Charges and/or Wheeling Charges, payable in cash, and deduction of the line losses, payable in kind, out of the net energy injected in respect of the RE Projects that would be commissioned on or after 01.04.2018.

- (d) It may be noted that almost all the stakeholders who participated in the proceedings are either developers of Wind Power Projects or Solar Power Projects. It was so, because only these Project Developers are the prominent stakeholders participating in the Open Access transactions. The developers of the Mini Hydel Projects in the Open Access transactions are very few. The other RE developers in the Open Access transactions are almost nil.

Therefore, we mainly analyzed the contentions of the RE Developers with reference to the Wind and solar Power Projects in the Open Access transactions. The Generic Tariff determined for the Wind and Solar Power Projects is considered as the generation cost of the Wind and Solar Power, respectively for the purpose of analysis.

III. On consideration of the comments / views / suggestions of the stakeholders and the oral submissions made by them, the following Issues would arise for consideration of this Commission:

- (1) Whether the Commission is precluded from withdrawing / modifying the concession / exemption regarding the levy of the Wheeling Charge in respect of the RE Projects, which have not yet completed the 10-year period from the date of the commercial operation, as on 31.03.2018, on the principles of *promissory estoppel*?
- (2) If Issue No.(1) is held in the negative, then:
 - (a) Whether levy of the proposed 25% of the normal Transmission Charge and/or Wheeling Charge or any other percentage of the said charge, is justifiable?; and,
 - (b) Whether the proposed deduction of the applicable Transmission and Distribution losses, in kind, from out of the net energy injected or any portion thereof, is justifiable?

in respect of the RE Projects, which have not yet completed the 10-year period from date of the commercial operation, as on 31.03.2018.

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- (3) Whether the proposed levy of 25% of the Transmission Charges and/or Wheeling Charges, payable in cash, and the deduction of the applicable line losses, in kind, from out of the net energy injected for the RE Projects commissioned on or after 01.04.2018. or any portion thereof, is justifiable?
- (4) What Order?
- IV. The decisions of the Commission, after examining the relevant issues raised above, are as follows:
- 1) **ISSUE No.(1):** *Whether the Commission is precluded from withdrawing / modifying the concession / exemption regarding the levy of the Wheeling Charge in respect of the RE Projects, which have not yet completed the 10-year period from the date of the commercial operation, as on 31.03.2018, on the principles of promissory estoppel?*
- (a) The Hon'ble Supreme Court of India, in the case of *Kasinka Trading Vs. Union of India*, reported in (1995) 1 SCC 274, has explained the principles of promissory estoppel, as follows:

"11. The doctrine of promissory estoppel or equitable estoppel is well established in the administrative law of the country. To put it simply, the doctrine represents a principle evolved by equity to avoid injustice. The basis of the doctrine is that where any party has by his word or conduct made to the other party an unequivocal promise or representation by word or conduct, which is intended to create legal relations or effect a legal relationship to arise in the future, knowing as well as intending that the representation, assurance or the promise would be acted upon by the other party to whom it has been made and has in fact been so acted upon by the other party, the promise, assurance or representation should be binding on the party making it and that party should not be permitted to go back upon it, if it would be inequitable to allow him to do so, having regard to the dealings, which have taken place or are intended to take place between the parties."

- (b) In the same decision, referred to above, in paragraph-13, the ambit, scope and amplitude of the doctrine of *promissory estoppel*, are stated as follows:

“We may also point out that the doctrine of promissory estoppel being an equitable doctrine, it must yield when the equity so requires; if it can be shown by the Government or public authority that having regard to the facts as they transpired, it would be inequitable to hold the Government or public authority to the promise or representation made by it, the Court would not raise an equity in favour of the person to whom the promise or representation is made and enforce the promise or representation against the Government or public authority. The doctrine of promissory estoppel would be displaced in such a case, because on the facts, equity would not require that the Government or public authority should be held bound by the promise or representation made by it.”

- (c) The applicability of the principle of *promissory estoppel* in case of withdrawal of the concession / exemption, already granted for a specific period, is laid down at Paragraphs-47 to 49 in the decision of the Hon'ble Supreme Court in the case of *Shree Sidhballi Steels Limited and others –Vs- State of Uttar Pradesh and others*, reported in (2011) 3 SCC 193, as follows:

“47. *This Court while allowing the appeal has held as under in SCC para 25 of the decision in Udaipur Udyog case: (SCC pp.688-99)*

'25. An exemption is by definition a freedom from an obligation which the exemptee is otherwise liable to discharge. It is a privilege granting an advantage not available to others. An exemption granted under a statutory provision in a fiscal statute has been held to be a concession granted by the State Government so that the beneficiaries of such concession are not required to pay the tax or duty they are otherwise liable to pay under such statute. The recipient of a concession has no legally enforceable right against the Government to grant of a

concession except to enjoy the benefits of the concession during the period of its grant. This right to enjoy is a defeasible one in the sense that it may be taken away in exercise of the very power under which the exemption was granted. (See *Shri Bakul Oil Industries v. State of Gujarat*, *Kasinka Trading v. Union of India* and *Shrijee Sales Corpn. v. Union of India.*)'

- 48.** From the principle enunciated in the abovementioned decision in *Udaipur Udyog* case there is no manner of doubt that the rebate which was granted to the petitioners, was, by definition, a freedom from an obligation which the appellants otherwise were liable to discharge. The rebate was a privilege granting an advantage which was not made available to others. The rebate granted under Section 49 of the Electricity (Supply) Act of 1948 was, therefore, a concession by the State Government so that the beneficiaries of such concessions were not required to pay the electricity tariff they were otherwise liable to pay under the said Act during the period of its grant. The Petitioners, as recipients of a concession, accepted to enjoy the benefits of the concession during the period of its grant. This right to enjoy was a defeasible one in the sense that it was liable to be taken away or withdrawn in exercise of the very power under which the exemption was granted.
- 49.** Again in *Arvind Industries v. State of Gujarat* the Government had withdrawn a concession given to a new industry. The claim of the industry was that such a course was not open to the Government. It was claimed by the Government that the notification giving concession did not contain any promise that the benefits given to new industry would not be altered from time to time. While rejecting the claim of the industry as not tenable, this Court has held that the Government is entitled to grant exemption to industries having regard to the industrial policy of the Government, but it is equally free to modify its industrial policy and grant, modify or withdraw fiscal benefits from time to time. What is important to notice is that this Court has held that in such circumstances the principle of promissory estoppel would not be attracted."

- (d) The contention of the stakeholders that, the withdrawal of the concession / exemption in the midway amounted to taking away the benefit with retrospective effect, is not well-founded. A similar question arose for consideration at Paragraph-60 in *Pawan Alloys & Casting (P) Ltd. –Vs- U.P. SED*, reported in (1997) 7 SCC 251 and it was held that, the withdrawal of the concession / exemption, for the unexpired period would not amount to withdrawing the same with retrospective effect. The withdrawal of the concession / exemption, now proposed, is not meant to be applicable for the expired period, during which the same was already enjoyed. But, the proposal for withdrawal of the concession / exemption is only for the unexpired period of the said concession / exemption. Therefore, we hold that, the withdrawal of the concession / exemption, for the unexpired period, would be prospective in nature.
- (e) The contention of the stakeholders that, there was no public interest or change in circumstance, warranting the withdrawal of the concession / exemption, is not acceptable to the extent stated in the in the latter part of this Order, for the reasons mentioned therein.
- (f) For the above reasons, we answer Issue No.(1) in the negative.
- 2) **ISSUE No.(2):** *If Issue No.(1) is held in the negative, then:*
- (a) *Whether levy of the proposed 25% of the normal Transmission Charge and/or Wheeling Charge or any other percentage of the said charge, is justifiable?*
- (b) *Whether the proposed deduction of the applicable Transmission and Distribution losses, in kind, from out of the net energy injected or any portion thereof, is justifiable?*

in respect of the RE Projects, which have not yet completed the 10-year period from date of the commercial operation, as on 31.03.2018.

(a) The stakeholders have contended that, the withdrawal or modification of the concession / exemption, midway, would have an adverse financial impact on their Projects. They have also contended that, the withdrawal of such concession / exemption would adversely affect the public interest in the long run, as there would be no further development of the RE Projects. Such contentions are also not tenable. It is pertinent to note here that, the Commission in its discussion paper had proposed Revision of Wheeling and Banking Charges, considering the following:

(i) The Commission had extended concessional wheeling & Banking charges keeping in view:

a. The high cost of generation from the RE sources vis.a.vis the cost of generation from the conventional sources, because of which the RE sources were unable to compete with the conventional sources;

b. The prevailing Demand-Supply position and energy security in the State;

c. Impact on the RE investments & the impact on end consumers;

d. Installed Capacity of the Solar Power Plants;

e. Concessional charges prevailing in other States;

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- f. The quantum of RE sources which were meagre when compared to other sources.
- (ii) Of the above, the main reasons for extending the concessions were the Demand-Supply gap prevailing at that point of time and the competitiveness of RE generators in terms of cost of Generation vis-à-vis the conventional plants which have changed now.
- a. The 2015-16 LGBR issued by the CEA, the demand-supply position during the FY15, when the Orders were passed by this Commission extending concessional wheeling and banking charges, indicated peak shortfall of 4.5% and energy shortfall of 4.3% for the Karnataka and peak shortfall of 5.2% and energy shortfall of 4.1% for Southern region and peak shortfall of 4.7% and energy shortfall of 3.6% for the country. However, in the 2017-18 LGBR, the actuals for the FY-17 indicates peak shortfall of 0.20% and energy shortfall of 0.5% for the Karnataka and peak shortfall of 0.0% and energy shortfall of 0.2% for Southern region and peak shortfall of 1.6% and energy shortfall of 0.70% for the Country. Further, the estimates for the FY18 as per the above report indicates that, Peak shortage of 5.4% and energy surplus of 8.1% for the Karnataka, Peak surplus of 1% and energy surplus of 7.4% for the Southern region and peak surplus of 6.8% and energy surplus of 8.8% for the country. The recent power situation in the State presented by, PCKL indicates that in FY19, there would be neither peak shortage nor energy shortages, considering the available and anticipated generation capacity. Thus, as far as

demand-supply position is concerned, the country as well as the State is moving towards power surplus position, from the earlier deficit regime. Therefore, there is considerable change in the demand-supply position at present, which does not call for extension of concessions for wheeling and banking.

- b. With the cost of wind & solar reducing substantially, RE sources can compete with the conventional sources of energy. Further, with HT consumers of the ESCOMs being required to cross-subsidize other category of consumers, more and more HT consumers are opting for OA/wheeling, as it would be financially beneficial, considering the prevailing tariff in the State. Thus, as there is sufficient demand from HT consumers under OA/wheeling, the RE investments would not get hampered, as long as, the total cost of supplying electricity under OA/wheeling is less than the HT-tariff. On the other hand, with the increased volume of OA/wheeling transactions, the losses incurred due to concessional W&B charges would also increase, which has to be passed on to the consumers of the ESCOMs. Thus, a reasonable increase in wheeling charges would not affect RE investments. On the other hand, if the same is not revised, the consumers have to bear the excess burden on account of current concessional charges extended to RE projects and the RE projects would end up with undue profits which is not in the public interest.
- (iii) Now let us examine the impact of present concessional Wheeling Charges of 5% on RE generated:

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- i) The Solar developers have stated that, the bid tariff of solar power plants at about Rs.3.00/unit cannot be applied for small capacity OA IPPs, and considering the anti-dumping duty and other expenses, a reasonable tariff for solar would be in the in the range of Rs. 4.00 to Rs. 5.00/unit. Eventhough, the developers of RE projects have stated that they have long-term agreement with consumers for wheeling, none of them produced any copy of the PPA entered with consumers to justify the tenure of any such agreements and the selling price. However, in its recent Generic Tariff Order, the Commission has determined a solar tariff of Rs.4.36/unit, which is considered as reasonable, for the purpose of analysis. Similarly, the wind developers have suggested a generation tariff of Rs.4.00/unit. However, in its recent tariff order, the Commission has determined a tariff of Rs.3.74/unit, which is considered as reasonable, for the purpose of analysis. After accounting for 5% wheeling charges and 2% banking charges, the landed cost for wind would be Rs.4.02/unit and for solar generators with no wheeling and banking charges, the landed cost would remain at Rs. 4.36/unit.
- ii) A HT Industry or Commercial consumer would opt for OA, only if his variable cost is less than the second slab tariff rate for energy charges which is Rs.6.80/unit for HT-2a and Rs. 8.35/unit for HT-2b, except in BESCOM area, where there is a higher tariff for BBMP/Municipal corporation areas. As stated by a generator, a fifty paise discount on retail supply tariff would be reasonable to sell to HT consumers under OA. Thus, the Generators would be selling at Rs. 6.30/unit to HT-2a consumers

and at Rs.7.85/unit to HT commercial consumers, considering the present energy charges. Thus, with the present concessional wheeling charges, a captive solar generator would gain Rs. 1.94/unit by selling to HT-Industry and Rs.3.49/unit by selling to Commercial consumer under OA, over and above the cost of generation which includes RoE also and in the case of wind, it will be Rs.2.28 and Rs.3.83/unit, respectively.

- iii) Further, in the case of non-captive OA transactions, CSS is not applicable for solar at present. As such, the benefits discussed earlier also applies to Non-Captive solar generators. However, CSS is applicable to wind and other RE sources. As per the Tariff Order 2017, the highest CSS applicable for HT-Industries is Rs.1.52/unit and for HT-Commercial it is Rs. 1.92/unit. Even after factoring the above CSS, a non-captive wind Generator selling to HT-Industries would gain Rs.0.76/unit over and above RoE and Rs. 1.91/unit selling to HT-Commercial.
- iv) The above analysis, indicates that the generators would be making undue profit by selling power under OA/wheeling, with promotional W&B charges, at the cost of consumers of the State, which is not in the public interest. The above analysis also indicates that with 50 paise/unit discount, any RE generator whose tariff is Rs.6.30 and above cannot sell under OA, even with the concessional charges, as it would not be a financially viable option. Even if, we assume that the discount offered to consumers by IPPs with respect to retail tariff is Rs. 1.00/unit, then also any RE generator with tariff of Rs.5.80/unit and above cannot sell under OA, even with concessional charges at present. Thus, those projects which

were earlier commissioned at higher capital costs cannot have OA as a viable option.

- v) The Stakeholders have stated that other costs like SLDC charges, Additional surcharge [if any], DSM charges are also to be factored. It may be noted that these charges are applicable to conventional power plants also, and for the purpose of comparing competitiveness, there is no need to consider the same.
 - vi) Further, as per the data furnished by ESCOMs, the OA/wheeling in the State, which was 361 MU in FY14 has increased to 2529 MU in FY17, indicating a CAGR of 91%. On the other hand the energy sold by ESCOMs to HT Industries and HT commercial has reduced from 11738 MU in FY14 to 10502 MU in FY17. Thus, the amount of cross subsidy available has also reduced, which indicates that the subsidy burden on the Government would increase.
 - vii) The Commission also notes that, the RE rich States, except Andhra Pradesh and Telangana (in the case of solar), have revised the wheeling charges.
 - viii) In view of the above, continuation of concessional wheeling charges is not in the public interest. Therefore, the Commission decides to revise the present wheeling charges.
- (b) *Applicable Transmission charges, Wheeling charges and losses:*
- (i) The Commission had proposed to levy 25% of the Normal Transmission charges and/or wheeling charges payable in cash, as determined by

the Commission in its Tariff Orders issued from time to time, for all the RE sources transmitting/wheeling electricity using the network of transmission licensee/distribution licensee, as the case may be.

(ii) The present transmission/wheeling charges as per Tariff Order 2017 are as follows:

- a. Transmission Charges: 51.09 paise/unit,
25% of Transmission Charges:13.00 paise/unit(after rounding off)

- b. Wheeling charges:

Paise/unit

BESCOM	MESCOM	CESC	HESCOM	GESCOM
57	77	80	75	94

25% of the above charges (after rounding off) would be:

Paise/unit

BESCOM	MESCOM	CESC	HESCOM	GESCOM
14	19	20	19	24

(iii) The actual charges payable depends upon the point of injection and point of drawal. In the worst case scenario, a transaction may involve both transmission and distribution network. In such a case the maximum network charges payable at 25% of normal cost would be 37 paise/unit [13 paise/unit +24 paise/unit].

c. T & D Losses:

In addition to the above, applicable losses, as approved by the Commission from time to time, shall be deducted from the net energy injected to arrive at the quantum of wheeled energy. The approved losses in Tariff Order 2017 for wheeling transactions are as under:

% losses

Transmission Losses	Distribution Losses				
	BESCOM	MESCOM	CESC	HESCOM	GESCOM
KPTCL					
3.37	11.46	11.01	11.50	14.85	10.57

The applicable losses depend upon the point of injection and point of drawal. In the worst case scenario, a transaction may involve both transmission and distribution network. In such a case the maximum network losses would be 17.72%, after deducting transmission loss first and then distribution loss.

Thus, the landed cost would work out as under:

a. Wind:

	Non-Captive	Captive
Particulars	Rs./unit	Rs./unit
Wind Gen. Cost	3.74	3.74
Losses	17.72%	17.72%
Cost after accounting for losses	4.55	4.55
25% T &D cost	0.37	0.37
CSS for HT-2a	1.52	Nil
CSS for HT-2b	1.92	Nil
Landed cost for HT-2a	6.44	4.92
Landed Cost for HT-2b	6.84	4.92

Thus, the above analysis indicates that in the case of non-captive, for HT-2a, the margin would come down by 14 paise, if the discount to consumer is retained at 50 paise/unit or else the discount itself has to be reduced by 14 paise. i.e. the IPP has to sell to OA consumer at a price 36 paise lower than the second slab rate. In all the other cases the landed cost is below the retail tariff after discounting 50 paise/unit.

b. Solar:

	Non-Captive	Captive
Particular	Rs./unit	Rs./unit
Solar Gen. Cost	4.36	4.36
Losses	17.72%	17.72%
Cost after accounting for losses	5.29	5.29
25% T &D cost	0.37	0.37
CSS for HT-2a	Nil	Nil
CSS for HT-2b	Nil	Nil
Landed cost for HT-2a	5.66	5.66
Landed Cost for HT-2b	5.66	5.66

Thus, the above analysis indicates that in all the cases the landed cost is below the retail tariff after discounting 50 paise/unit and is viable. The Commission also notes that, the levy of the Additional Surcharge at 13 (thirteen) paise per unit on the Open Access transactions of the RE Projects, introduced from 01.04.2018 under a separate Order, does not affect the viability of the RE Projects, to opt for the Open Access. The above analysis would apply to the Wind and Solar Power Projects, commissioned during the period when the Generic Tariff of Rs.3.74 per unit for the Wind Power Projects and Rs.4.36 per unit for the Solar Power Projects were prevalent.

In view of the above analysis, the Commission decides to levy 25% (twenty five percent) of the Normal Transmission charges and/or

wheeling charges payable in cash, and the applicable line losses, in kind, as determined / approved by the Commission in its Tariff Orders issued from time to time, for the Wind and Solar Power Projects, commissioned during the regime, when the Generic Tariff of Rs.3.74 per unit for the Wind Power Projects and Rs.4.36 per unit for the Solar Power Projects, transmitting/wheeling electricity using the network of transmission licensee/distribution licensee, as the case maybe, were prevalent.

The Generic Tariff for the Solar Power Projects, Wind Power Projects and Mini Hydel Projects, prevailing during different periods, are as follows:

SOLAR

Tariff per Unit (Rs.)	From	To
8.40	01.04.2013	31.08.2015
6.51	01.09.2015	31.03.2017
4.36	01.04.2017	31.03.2018

WIND

Tariff per Unit (Rs.)	From	To
3.40	10.06.2004	31.12.2009
3.70	01.01.2010	09.10.2013
4.50	10.10.2013	03.09.2017
3.74	04.09.2017	31.03.2018

MINI HYDEL

Tariff per Unit (Rs.)	From	To
2.80	10.06.2004	31.12.2009
3.40	01.01.2010	31.12.2014
4.16	01.01.2015	31.03.2018

Taking into account the above analysis relating to the Wind and solar Power Projects and the Generic Tariff prevailing during different periods for the Solar, Wind and Mini Hydel Power Projects, we are of the considered view that:

- (a) the Solar Power Projects commissioned earlier to 31.03.2017 may be continued with the existing concessional Wheeling Charges of 5% (five percent), in kind, out of the net injected energy;
- (b) The Wind Power Projects commissioned during the period between 10.10.2013 and 03.09.2017, when the Wind Tariff was Rs.4.50 per unit, the proposed 25% (twenty five percent) of the normal Transmission Charges and/or Wheeling Charges, in cash, alone may be levied, exempting the proposed levy of the line loss, in kind;
- (c) The Mini Hydel Power Projects commissioned during the period between 01.01.2015 and 31.03.2018, when the Mini Hydel Tariff was Rs.4.16 per unit, the proposed 25% (twenty five percent) of the normal Transmission Charges and/or Wheeling Charges, in cash and 50% (fifty percent) of the proposed levy of the line loss, in kind, may be levied; and,

(d) The Wind Power Projects commissioned upto 09.10.2013, which have not completed the 10-year period from 31.03.2018, and the Mini Hydel Projects commissioned upto 31.12.2014, which have not completed the 10-year period on 31.03.2018, are to be levied the proposed 25% (twenty five percent) of the Transmission Charges and/or Wheeling Charges, in cash and the proposed applicable line loss, in kind.

The Biomass and Cogeneration Power Projects have to bear the high fuel cost, apart from their Fixed Costs, therefore, the cost of energy per unit, for the present, would be more than Rs.5.00 per unit. Therefore, these Projects may not be saddled with the proposed Wheeling Charges and line loss, and such Projects may be levied the existing Wheeling Charges, in kind, out of the net energy injected.

For the above reasons, we answer Issue No.(2), accordingly.

- 3) **ISSUE No.(3):** *Whether the proposed levy of 25% of the Transmission Charges and/or Wheeling Charges, payable in cash, and the deduction of the applicable line losses, in kind, from out of the net energy injected for the RE Projects commissioned on or after 01.04.2018. or any portion thereof, is justifiable?*

The applicability of the principle of *promissory estoppel* or the principle of *legitimate expectation* does not arise for the RE Projects to be commissioned on or after 01.04.2018. The new Solar Power Projects are liable for payment of Cross-Subsidy Surcharge, in addition to the other applicable charges for the

Open Access transactions. The Commission notes that the capacity addition of the RE power, for the present, has reached its required level in the State, and the RE generators could compete with the Conventional Power generators. For the above reasons, we are of the considered view that, the levy of proposed 25% (twenty five percent) of the normal Transmission Charge and/or Wheeling Charge, in cash, and the applicable line loss, is quite justifiable. Therefore, we answer Issue No.(3), accordingly.

4) **ISSUE No.(4):** *What Order?*

For the foregoing reasons, we pass the following:

ORDER

- (1) Subject to the terms stated in Paragraph-2 below of this Order, all Renewable Energy Projects [other than the Captive Generators availing of the benefit of the Renewable Energy Certificate (REC)], which have not yet completed 10 (ten) years from the date of commercial operation, as on 31.03.2018, shall be:
 - (a) liable to pay 25% (twenty five percent) of the normal Transmission Charges and/or Wheeling Charges, payable in cash, as determined by the Commission in its Tariff Orders, issued from time-to-time, transmitting / wheeling electricity using the network of the Transmission Licensee / Distribution Licensee, as the case may be; and,
 - (b) in addition, liable to bear the applicable line losses, as approved by the Commission from time-to-time, by deducting from out of the net injected energy;
 - (c) in addition, liable to the other applicable charges, including Banking Charges of 2% (two percent), in kind;

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- (2) (a) The Solar Power Projects commissioned on or earlier to 31.03.2017 shall be continued with the existing concessional Charges;
- (b) For the Wind Power Projects commissioned during the period between 10.10.2013 and 03.09.2017, 25% (twenty-five percent) of the normal Transmission Charges and/or Wheeling Charges, in cash, alone shall be levied, exempting the levy of the line loss, in kind;
- (c) For the Mini Hydel Power Projects commissioned during the period between 01.01.2015 and 31.03.2018, 25% (twenty five percent) of the normal Transmission Charges and/or the Wheeling Charges, in cash and only 50% (fifty percent) of the applicable line loss, in kind, shall be levied;
- (d) For the Wind Power Projects and the Mini-Hydel Power Projects referred in (b) and (c) above, Banking Charges at 2% (two percent), in kind, and other applicable charges shall be levied; and,
- (e) The Biomass and Cogeneration Power Projects shall not be liable for the proposed Transmission Charges and/or Wheeling Charges, in cash, and the applicable line losses, in kind, and the said Projects shall be liable to pay only 5% (five percent), in kind, of the net energy injected as Transmission charges and/or Wheeling Charges;
- (3) The Renewable Energy Projects, which have completed the 10-year period from the date of commercial operation, as on 31.03.2018, shall be liable for normal Transmission Charges and/or Wheeling Charges, in cash, and the applicable line losses and banking charge, in kind, as determined by the Commission in its Tariff Orders, from time-to-time, in addition to the other applicable charges;

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- (4) The Renewable Energy Projects, commissioned on or after 01.04.2018, shall be liable for 25% (twenty five percent) of the normal Transmission Charges and/or the Wheeling Charges, in cash, and the applicable line losses and banking charge, in kind, as determined by the Commission in its Tariff Orders, from time-to-time, in addition to the other applicable charges;
- (5) The Solar Power Projects, commissioned on or after 01.04.2018, shall be liable for the applicable Transmission Charges and/or Wheeling Charges, Cross-Subsidy Surcharge and the Banking Charges, for availing of the Open Access transactions, in addition to the other applicable charges;
- (6) The Captive Generators, availing of the benefit of the Renewable Energy Certificate (REC) mechanism, shall be liable to pay the normal Transmission, Wheeling and other charges, as specified in the Commission's Order dated 09.10.2013; and,
- (7) This Order shall come into effect from 01.04.2018 and shall be in force till 31.03.2020 or until further Orders in this regard, whichever is later;

Sd/-
(M.K. SHANKARALINGE GOWDA)
CHAIRMAN

Sd/-
(H.D. ARUN KUMAR)
MEMBER

Sd/-
(D.B. MANIVAL RAJU)
MEMBER