

**KARNATAKA ELECTRICITY REGULATORY COMMISSION**

No.9/2, 6<sup>th</sup>& 7<sup>th</sup> Floor, Mahalaxmi Chambers,

M.G.Road, Bangalore-560 001

<b>Present:</b>	Shri M.R. Sreenivasa Murthy	Chairman
	Shri H. D. Arun Kumar	Member
	Shri D.B. Manival Raju	Member

**In the matter of:**

**Wheeling charges, Banking charges & Cross Subsidy Surcharge for Solar Power Generators**

**ORDER**

**S/03/1**

**Date : 18<sup>th</sup> August, 2014**

**I. Preamble:**

1. In exercise of powers conferred under the provisions of Section 86(1)(e), Section 61(h) and Section 62(1)(a) read with Section 64 of the Electricity Act 2003 (the Act), the Commission in its Order dated 10<sup>th</sup> October, 2013 has determined the Tariff for grid inter active solar power plants including rooftop and small solar photovoltaic power plants. In the said Order, the Commission has decided not to levy any wheeling charges and banking charges, or cross subsidy surcharge for the solar generators who sell electricity on open access within the State. Keeping in view the prevailing high cost of generation of solar power as compared to other renewable sources of power, the Commission had decided to enable the solar power generators to sell solar power at competitive rates. The Commission has subsequently clarified that the exemption of payment of wheeling, banking and the cross subsidy surcharge is applicable up to the end of the control period i.e 31<sup>st</sup> March, 2018.

2. After the above order was issued, the Commission had received several representations from interested persons/stakeholders urging the Commission to extend the exemption of payment of wheeling and banking charges and cross subsidy surcharge for solar power plants beyond 31.03.2018 to provide clarity on the revenue streams generated by solar power plants, subsequent to the above date.

## **II. Discussion Paper:**

To consider the above representations/suggestions, the Commission had issued a discussion paper in the matter and invited comments/ suggestions of the stakeholders on the following issues:

- i. The Commission has exempted solar power generators from the levy of charges for wheeling, banking and cross subsidy surcharge for the period upto 31.03.2018. Whether such exemption should be allowed for the period of debt repayment of, say 10 years for the plants commissioned before 31.03.2018?
  - ii. Whether the exemption of charges for wheeling, banking and cross subsidy surcharge should be made available till a certain solar capacity addition in the State is achieved, say 1000MW or till 31.03.2018?
  - iii. Whether nominal wheeling and banking charges as existing (5% Wheeling & 2% banking) for other renewables and fixed cross subsidy surcharge should be levied for a period of, say 10 years, so that there is certainty of revenue streams for solar projects to enable them to get funding from the financial institutions?
3. In response, the Commission has received several comments and suggestions on the above issues. The Commission also held a public hearing in the matter on 31<sup>st</sup>

July 2014. Developers in solar power generation and ESCOMs/PCKL participated in the public hearing.

### III. Suggestions/Comments of stakeholders on the Discussion Paper:

The stake holders/ Solar developers have made the following submissions:

- a) On the question of extending the benefit of exemption from payment of wheeling & banking charges for a period of 10 years (debt repayment period), many of the stake holders have suggested to extend the exemption up to a period of 10 to 15 years to ensure certainty of revenues and to enable the investors to repay the debt capital within that period. Some developers have sought exemption of wheeling, banking and cross subsidy surcharge for the useful life of the plant i.e. 25 years from the date of commissioning for all plants commissioned on or before 31<sup>st</sup> March 2018.
- b) On the question of extending the benefit till a certain capacity addition is achieved, some stakeholders have suggested that, the cut-off date for extending these exemptions shall be till a date by which a capacity addition of 1000 MW Solar power (under wheeling) is achieved in the State or till 31.3.2018, whichever is later.
- c) On the question as to whether to charge 5% wheeling & 2% banking charges on the lines of the other renewable energy sources, besides collecting a fixed cross subsidy surcharge none of the persons representing developers have supported this proposal.
- d) During the public hearing, the Additional Director, PCKL has expressed the view that solar power generators may inject energy during off peak season / hours and utilize the same during peak season / hours. This would result in technical / financial burden on the utilities. Hence he suggested that banking should be

only on monthly basis i.e. energy banked in a month should be entirely utilized in the subsequent month. He also pointed out that the exemption of wheeling, banking and cross subsidy surcharge results in a financial burden on them. However, no quantified estimates of the financial burden on this account have been submitted.

- e) KPTCL in its written submission has requested for allowing, 5% wheeling and 2% banking charges and to levy cross subsidy surcharge upto the term of agreement (10 years).
- f) BESCOM in its written submission has suggested levying 5% wheeling and 2% banking charges. They have also suggested that the cross subsidy surcharge be levied in the coming years, once the solar power generation increases.

#### **IV. Issues for consideration:**

##### **a) Promotion of Solar Power :**

The Commission notes that, even though the State has potential of several thousands of Megawatt of solar power generation, the present installed capacity is not adequate to even meet the solar RPO of 0.25 percent of the power procured by the Distribution Licensees. The Solar Policy of Government of Karnataka dated 22.05.2014 has targeted a capacity addition of 1600 MW of solar power generation by 2021. As of now, only 41 MW of solar power generation capacity is available in the State and about 250 MW is in the pipeline. While most of this solar power generated is being sold to the ESCOMs, solar power generation for use by captive and third parties is yet to come up on a large scale. Hence there is a need to promote solar power for achieving the desired objective of capacity addition to develop the State's potential for generation of solar energy.

**b) High Cost of Solar Power projects:**

The solar power developers/ generators have represented that the solar power projects need huge investments and they have to be financed substantially through borrowings. They have pointed out that greater clarity on the wheeling and banking charges and cross subsidy surcharge beyond 31<sup>st</sup> March, 2018 will enable them to obtain project finance and hence have requested the Commission to provide clarity on these charges at least for the period of debt repayment of say 10 to 15 years.

The Commission has recently issued Orders on 4<sup>th</sup> July 2014, extending the concessional wheeling charges and banking charges of 5% and 2% respectively for renewable sources of energy for a period of ten years effective from the date of COD of such projects commissioned before 31.03.2018.

**c) Competitive rates of Solar power**

The capital cost of solar PV projects which presently ranges between Rs.7 Crores / MW and Rs.8 Crores / MW is expected to come down in future owing to new technologies, competition and economy of scale. The capital cost of other renewable sources as also their cost of generation is considerably lower, for the present, compared to solar power. It is likely that the declining trend in the capital cost of solar power projects will result in the cost of generation of solar power becoming comparable to other renewables in a period of 3 – 4 years. The exemption from wheeling and banking charges etc. is relevant only in the context of the comparatively high capital investment on the projects likely to be commissioned in the next few years in view of the higher finance charges, etc. which need to be covered by their revenues for several years.

**V. Commission's Analysis & decisions:**

On the suggestion that the benefit of exemption from charges could be extended over a period of 25 years (ie life of the plant), the Commission is of the view that promoters of solar power projects who seek to sell power in the market need to be provided with clarity on the charges to be paid only for the period of debt repayment of about 10 – 12 years after which they are in a better position to face any market fluctuations. However, those who seek certainty of revenue for the entire life of a project have the option of planning their projects on the basis of long term PPAs with the distribution licensees.

As regards the suggestion to consider extending these exemptions till a date by which a capacity addition of 1000 MW Solar power (under wheeling arrangement) is achieved in the State or till 31.3.2018, whichever is later, the Commission is of the view that as of now, only 41 MW of solar power generation capacity is available in the State and it is difficult to foresee as to how much of the capacity would be added in future. Hence extending a benefit for an uncertain period may not be justified particularly in view of the declining trend of the capital cost of solar power projects.

The contention that, allowing banking to solar power generators would burden the utilities is not accepted by the Commission as the quantum of energy that is likely to be generated from solar power plants is likely to be a small proportion of the total procurement of power by the utilities and as such the burden on the network, if any, will be marginal.

Considering the above factors, and in the interest of promoting the generation of solar energy as mandated under Section 86(1) of the Electricity Act, 2003, the Commission passes the following:

**ORDER**

In exercise of the powers conferred under clause 11 of the KERC (Terms and conditions of open access) Regulations, 2004 as amended from time to time and all other powers enabling in this behalf, the Commission hereby orders as follows:

1. All solar power generators in the State achieving commercial operation date (CoD) between 1<sup>st</sup> April 2013 and 31<sup>st</sup> 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. 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 9<sup>th</sup> October 2013.

This order is signed and issued by Karnataka Electricity Regulatory Commission on this 18<sup>th</sup> day of August 2014.

Sd/-  
**M.R.Sreenivasa Murthy**  
Chairman

Sd/-  
**H.D.Arun Kumar**  
Member

Sd/-  
**D.B.Manival Raju**  
Member