BEFORE THE KARNATAKA ELECTRICITY REGULATORY COMMISSION, BENGALURU

Dated : 11th April, 2017

Present:

Shri M.K. Shankaralinge Gowda	..	Chairman
Shri H.D. Arun Kumar	..	Member
Shri D.B. Manival Raju	..	Member

1) <u>OP No. 38 / 2016</u>

BETWEEN:

NSL Sugars (Tungabhadra) Limited,
No.60/1, 2nd Cross,
Residency Road,
Bengaluru – 560 025 .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

2) <u>OP No. 39 / 2016</u>

BETWEEN:

NSL Sugars Limited,
Aland Unit,
No.60/1, 2nd Cross,
Residency Road,
Bengaluru – 560 025 .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

3) <u>OP No. 40 / 2016</u>

BETWEEN:

NSL Sugars Limited,
Koppa Unit,
No.60/1, 2nd Cross,
Residency Road,
Bengaluru – 560 025 .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

4) OP No. 41 / 2016

BETWEEN:

Davanagere Sugar Co. Limited,
No.73/1, P.B.No.312,
Shamanur Road,
Davanagere District – 577 525. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

5) OP No. 42 / 2016

BETWEEN:

Gem Sugars Limited,
Hooday Apartments,
Cunningham Road,
Bengaluru – 560 052. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

6) OP No. 43 / 2016

BETWEEN:

Vijayanagar Sugars Pvt. Limited,
Plot No.359,
Road No.80,
Jubilee Hills,
Hyderabad – 560 033. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

7) OP No. 44 / 2016

BETWEEN:

ETD Parry (India) Limited,
Dear House, 234,
N.S.C. Bose Road,
Parrys Corner,
Chennai – 600 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

8) **<u>OP No. 45 / 2016</u>**

BETWEEN:

Athani Sugars Ltd.
Vishnu Anna Nagar,
Navlihal Post,
Athani Taluk,
Belagavi District – 591 234. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

9) **<u>OP No. 46 / 2016</u>**

BETWEEN:

K P R Sugar Mills Pvt. Ltd.,
No.5, AKS Nagar,
Thadagam Road,
Coimbatore – 641 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

10) **<u>OP No. 47 / 2016</u>**

BETWEEN:

Jamakhandi Sugars Pvt. Ltd.,
Hirepadasalagi,
Naganur Post,
Jamakhandi Taluk,
Bagalkot Distrfict. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

11) **<u>OP No. 48 / 2016</u>**

BETWEEN:

Sri Chamundeswari Sugars Ltd.,
No.88/5, Richmond Road,
Bengaluru – 560 025. .. **PETITIONER**

[Represented by Keystone Partners, Advocates]

12) **OP No. 49 / 2016**

BETWEEN:

Manali Sugars Ltd.,
A/P : Malgahn,
Sindhagi Taluk,
Vijayapura. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

13) **OP No. 50 / 2016**

BETWEEN:

ETD Parry (India) Limited,
Dear House, 234,
N.S.C. Bose Road,
Parrys Corner,
Chennai – 600 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

14) **OP No. 51 / 2016**

BETWEEN:

Jamakhandi Sugars Pvt. Ltd. (Unit-2),
Nadkd, Indi Taluk,
Vijayapura District. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

15) **OP No. 52 / 2016**

BETWEEN:

Shamanur Sugars Limited,
No.374, 4yth Main,
P.J. Extension,
Davanagere – 577 002 .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

16) **<u>OP No. 53 / 2016</u>**

BETWEEN:

Bhalkehwar Sugars Ltd.,
Basaveshwara Chowk,
Near I.B.,
Bhalki – 585 328. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

17) **<u>OP No. 54 / 2016</u>**

BETWEEN:

Godavari Biorefineries Ltd.,
Somaiya Bhavan,
45/47, M.G. Road,
Fort,
Mumbai – 400 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

18) **<u>OP No. 55 / 2016</u>**

BETWEEN:

Core Green Sugar & Fuels Pvt. Ltd.,
Plot No.860-A, Road No.45,
Jubilee Hills,
Hyderabad – 500 003. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

19) **<u>OP No. 56 / 2016</u>**

BETWEEN:

Shiraguppi Sugar Works Ltd.,
"Doddanavar Corporate House",
738/1, Khanpur Road,
Near 3rd Railway Gate,
Belagavi – 590 008. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

20) **OP No. 58 / 2016**

BETWEEN:

Shree Renuka Sugar Limited.
BC-10, Havelock Road,
Camp : Belagavi – 590 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

21) **OP No. 59 / 2016**

BETWEEN:

Indian Cane Power Limited,
No.677,
Shri Kalleshwara Rice Mill Compound,
R.M.C. Road, Ankola,
Davanagere – 577 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

22) **OP No. 60 / 2016**

BETWEEN:

Shree Renuka Sugar Limited.
BC-10, Havelock Road,
Camp : Belagavi – 590 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

23) **OP No. 61 / 2016**

BETWEEN:

Shree Renuka Sugar Limited.
BC-10, Havelock Road,
Camp : Belagavi – 590 001. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

24) **OP No. 62 / 2016**

BETWEEN:

Vishwaraj Sugar Industries Ltd.,
Bellad-Bagewadi
Taluk Hukkeri,
Belagavi District – 591 305. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

25) **OP No. 63 / 2016**

BETWEEN:

Nirani Sugars Ltd.,
No.904, 9th Floor,
World Trade Centre,
Brigade Gateway Campus,
No.26/1, Dr. Rajkumar Road,
Bengaluru – 560 055. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

26) **OP No. 65 / 2016**

BETWEEN:

Prabhulingeshwara Sugars & Chemicals Ltd.,
'Sukrut' Building,
Opp.: K.C. Park Main Gate,
P.B. Road,
Dharwad – 580 008. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

27) **OP No. 66 / 2016**

BETWEEN:

Shivashakti Sugars Ltd.,
204, Shukravar Peth,
Tilakwadi,
Belgagavi. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

28) OP No. 67 / 2016

BETWEEN:

Bannari Amman Sugars Ltd.,
P.B. No.3979,
1212, Trichy Road,
Coimbatore – 641 018. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

29) OP No. 68/ 2016

BETWEEN:

Bannari Amman Sugars Ltd.,
P.B. No.3979,
1212, Trichy Road,
Coimbatore – 641 018. .. **PETITIONER**

[Represented by Navayana Law Offices, Advocates]

A N D :

1) Bangalore Electricity Supply Company Limited,
K.R. Circle,
Bengaluru – 560 001.

2) Chamundershwari Electricity Supply Corporation Limited,
No.29, Kaveri Grameena Bank Road,
Vijayanagar, 2nd Stage,
Mysuru – 570 019.

3) Gulbarga Electricity Supply Company Limited,
Station Road,
Kalaburagi – 585 101.

4) Hubli Electricity Supply Company Limited,
P.B. Road, Navanagar,
Hubballi – 580 025.

5) Mangalore Electricity Supply Company Limited,
MESCOM Bhavana,
Kavoor Cross Road, Bejai,
Mangaluru – 575 004. .. **RESPONDENTS**

[NOTE :-

Respondents are common in all the above 29 Petitions and they are represented by Indus Law, Advocates and Shri Shahbaaz Hussain, Advocate]

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CONNECTED WITH

OP No.85/ 2016

BETWEEN:

1) Bangalore Electricity Supply Company Limited,
K.R. Circle,
Bengaluru – 560 001.

2) Hubli Electricity Supply Company Limited,
P.B. Road, Navanagar,
Hubballi – 580 025.

3) Gulbarga Electricity Supply Company Limited,
Station Road,
Kalaburagi – 585 101.

4) Mangalore Electricity Supply Company Limited,
MESCOM Bhavana,
Kavoor Cross Road, Bejai,
Mangaluru – 575 004.

5) Chamundershwari Electricity Supply Corporation Limited,
No.29, Kaveri Grameena Bank Road,
Vijayanagar, 2nd Stage,
Mysuru – 570 019. .. **PETITIONERS**

[Petitioners are represented by Just Law, Advocates]

AND :

Nil .. **RESPONDENT**

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COMMON ORDERS

1) The various Bagasse-based Cogeneration Plants (hereinafter referred to as the "Cogen Plants") mentioned above, who have no Power Purchase Agreements (PPAs) with the Electricity Supply Companies (ESCOMs) in Karnataka, have expressed their willingness to enter into PPAs with the ESCOMs for supply of exportable capacity of electricity and have filed the above Petitions requesting this Commission to determine a just and reasonable tariff for their Power Plants as per the applicable norms and Regulations and to direct the ESCOMs for executing the PPAs and further requesting to exempt them from Merit Order Despatch,

2) In all the above Petitions, filed by the Cogen Plants, the ESCOMs are shown as Respondents. At the time of admission of these Petitions, the Commission noted that, consent from any of the ESCOMs was not obtained for purchase of power from these Cogen Plants. Therefore, this Commission issued Notices to the ESCOMs, directing them to indicate whether they would purchase power from these Cogen Plants or not. The Bangalore Electricity Supply Company Limited (BESCOM), Hubli Electricity Supply Company Limited (HESCOM) and Gulbarga Electricity Supply Company Limited (GESCOM) replied that, they could purchase power from the Cogen Plants, only if they sell the power at the Average Power Purchase Cost (APPC) MINUS the transmission charges. The Chamundeshwari Electricity Supply Corporation Limited (CESC) and Mangalore Electricity Supply Company Limited (MESCOM) did not reply.

3) On 1.12.2016, the Petitioners filed an Interlocutory Application requesting for fixing a provisional tariff, as the sugarcane crushing season had begun and these Plants were required to generate power. On the same day, their request was allowed and a provisional tariff was fixed at the APPC rate MINUS the transmission charges (i.e., `3.94 - `0.47 = `3.47) per unit).

4) On 12.1.2017, the Petitioners produced a Government letter dated 18.11.2016 and requested for fixation of tariff based on the said letter.

5) In the meanwhile, on 18.11.2016, all the ESCOMs filed OP No.85/2016 requesting:

> "(1) To approve the proposal of the Petitioners (ESCOMs) for procurement of electricity on medium term basis from the Bagasse-based Cogen Plants, who are already generating electricity and do not have PPAs with the ESCOMs, in terms of the Government Order dated 11.11.2016;
>
> (2) To determine the tariff payable by the Petitioners (ESCOMs) herein in accordance with the Government Order No.EN 16 PPT 2016, Bangalore, dated 11.11.2016 from Bagasse-based Cogen Plants."

This Petition, OP No.85/2016 has been clubbed along with the above Petitions filed by the Cogen Plants, as per the Order dated 24.11.2016.

6)(a) The learned counsel for both sides submitted that, this Commission has already passed different Orders regarding the generic tariff applicable to the Cogen Plants during different Control Periods and based on the norms applied therein and taking into consideration the Government Order dated 11.11.2016 and the Government letter dated 18.11.2016, the tariff may be determined by this Commission for a 5-year term, from FY17 to FY21.

6)(b) The learned counsel for the ESCOMs submitted that, these Cogen Plants had earlier supplied power to the ESCOMs under short-term contracts and also under the Section 11 Orders, at a rate more than `5.00 per unit in the last eight years and some of these Cogen Plants had also exported power through open access to other States, at a rate more than `6.00 per unit. The learned counsel for the ESCOMs submitted that, at present, the average rate prevailing in the IEX for peak period during the first week of January, 2017 was `4.17 per unit including the transmission charges of `0.36 per unit and the lowest discovered rate by the Power Company of Karnataka Limited (PCKL) for short-term contract of PTC and JSW was `4.15 per unit and `4.18 per unit, respectively, for procurement of 1,200 MW. Further, he submitted that, as the procurement of power from these Cogen Plants for the present is for a period of five years, the rate should be less than the rates for short-term contracts discovered by the PCKL.

6)(c) The learned counsel for the Cogen Plants submitted that, in respect of the Cogen Plants commissioned on or after 1.1.2015, the generic Tariff Order dated 1.1.2015 passed by this Commission has to be applied and in respect of other Cogen Plants, the generic Tariff Order dated 22.1.2015 passed by this Commission in the matter of 'Revision of Fuel Cost for the existing Biomass Power Plants in Karnataka' has to be applied.

7)(a) The Cogen Plants involved in these cases have been commissioned on different dates, from 1999 to September, 2015.

7)(b) The first generic Tariff Order in respect of Cogen Plants and other Renewable Sources of Energy was passed by this Commission on 18.1.2005. The generic tariff determined in this Order was made applicable to the PPAs filed before this Commission on or after 10.6.2004, for a period of ten years from the Commercial Operation Date (COD) of the Plants and was subject to review after five years. Under this Order, the tariff determined for Cogen Plants was `2.80 per unit in the first year from the COD, with an escalation of 2% per annum on the base of tariff (without compounding) for the subsequent nine years period.

7)(c) The subsequent generic Tariff Order in respect of Cogen Plants and other Renewable Sources of Energy was passed by this Commission on

11.12.2009. The tariff determined in this Order was made applicable to all the PPAs submitted to this Commission for approval on or after 1.1.2010, for a period of ten years from the date of signing of the PPA and the tariff determined in the said Order was subject to review after a period of five years. This Order further clarifies that, in respect of the PPAs already approved by this Commission and in respect of the PPAs received in this Commission before 1.1.2010, the tariff and other terms and conditions should apply as per those PPAs. The tariff determined under this Order dated 11.12.2009 for Cogen Plants was re-fixed by this Commission's Order dated 29.3.2012. After re-fixation, the tariff applicable for this Control Period for the Cogen Plants was as detailed below :

Year	**Tariff (Rs./unit) (Tariff as determined vide Order dated 11.12.2009)**	**Tariff as determined after re-fixation vide Order dated 29.3.2012 (Rs./unit)**
1st Year	3.59	3.90
2nd Year	3.63	3.93
3rd Year	3.67	3.96
4th Year	3.72	4.00
5th Year	3.77	4.05
6th Year	3.83	4.10
7th Year	3.90	4.16
8th Year	3.97	4.22
9th Year	4.05	4.29
10th Year	4.14	4.37

7)(d) Subsequently, by Order dated 1.1.2015, this Commission has determined the generic tariff in respect of Bagasse-based Cogen Plants and for some other Renewable Sources. The tariff determined for Cogen Plants in this Order was made applicable to the Cogen Plants commissioned during the period between 1.1.2015 and 31.3.2018, for which PPAs had not been entered into prior to the date of this Order. Further, it was clarified that, in respect of the Cogen Plants for which PPAs had been entered into prior to the date of this Order, the tariff as per the said Agreements was applicable, even if the Projects were commissioned subsequently. Under this Order, the Commission had determined a 2-part tariff for Cogen Plants determining the fixed cost levelized for the life of the Cogen Plants at `2.02 per unit and determining the variable cost applicable at `2.81 per unit for FY15, `2.97 per unit for FY16, `3.14 per unit for FY17 and `3.32 per unit for FY18, i.e., with an escalation at 5.73% per annum on the base rate of `2.81 per unit. It is stated in the said Order that, in respect of the Cogen Plants, the variable tariff (fuel cost) for the subsequent years would be reviewed after 31.3.2018.

8) There was a disproportionate increase in the fuel cost than the increase that was assumed in the Tariff Orders dated 18.1.2005 and 11.12.2009 in respect of the existing Biomass Cogeneration Plants. Therefore, this Commission, by its Order dated 22.1.2015, revised the fuel cost for the existing Cogen Plants by bifurcating the earlier Single-Part tariff into a Two-Part tariff, viz., fixed cost and variable cost, and to the fixed cost so arrived at, the variable cost as determined in the generic Tariff Order dated 1.1.2015 was added. The Commission noted that, the fuel cost would remain the same for the old Cogen Plants as well as the new Cogen Plants. The average fixed cost so arrived at for the Cogen Plants

was `1.31 per unit in respect of the Projects established under the generic Tariff Order dated 18.1.2005 and `1.86 per unit in respect of the Projects established under the generic Tariff Order dated 11.12.2009. The fuel cost determined in the generic Tariff Order dated 1.1.2015 relating to the Cogen Plants was `2.81 per unit for FY15, `2.97 per unit for FY16, `3.14 per unit for FY17 and `3.32 per unit for FY18, i.e., with an escalation at 5.73% per annum on the fuel cost of `2.81 per unit for the base year FY15. Therefore, the revised tariff for the existing Cogen Plants subsequent to the Order dated 22.1.2015 would be as noted below:

Year	**Bagasse-based Cogeneration (with PPAs signed as per 2005 Order and earlier) Rs.Ps./per unit**	**Bagasse-based Cogeneration (with PPAs signed as per 2009 Order) Rs.Ps./per unit**
2014-15	4.12	4.67
2015-16	4.28	4.83
2016-17	4.45	5.00
2017-18	4.63	5.18

The above revised tariff was made applicable from 1.1.2015 to 31.3.2018. The Order dated 22.1.12015 also states that, the variable cost for the subsequent years would be reviewed after 31.3.2018.

9) Considering the above facts, in order to determine the tariff in these cases, the following issues would arise for our consideration :

(1) Which of the Cogen Plants in the above cases are governed by which of the generic Tariff Orders, for applicability of the tariff?

(2) Whether the Tariff Order dated 22.1.2015 revising the fuel cost for the existing Biomass Cogen Plants and determining the fixed cost for them is to be applied, as it is?

(3) If Issue No.(2) is held in the negative, whether the tariff should be different for the Cogen Plants commissioned in different years of a Control Period, adopting the principles and methodologies stated in the Tariff Order dated 22.1.2015?

(4) Whether the purchase of power should be restricted to 501 MW from the Cogen Plants, who approached the Government of Karnataka for a direction to the ESCOMs for purchase of power from the Cogen Plants?

(5) What Order?

10) After considering the oral submissions of the parties and the material placed on the record, our findings on the above issues are as follows :

11) **<u>ISSUE No.(1)</u>:** *Which of the Cogen Plants in the above cases are governed by which of the generic Tariff Orders, for applicability of the tariff?*

(a) On the basis of the various financial and operational parameters approved for a Control Period, the generic tariff for a Renewable Project is determined. The generic tariff so determined in an Order for a Control Period is like a standing offer for the prospective Project Developer and the ESCOM concerned to enter into a PPA for purchase of power from the Project to be established. The generic Tariff Oder also provides for applicability of the tariff for the Project established during that Control Period. The prospective Project Developer enters into a PPA with the ESCOM willing to purchase power from that Project. The different generic Tariff Orders noted above, have provided that the generic tariff determined under a particular Order for a Control Period, would apply to the Projects which entered into a PPA. Usually, the time for construction of a Renewable Energy Project is taken as two years from the date of entering into a PPA.

(b) The financial and operational parameters may change in a subsequent Control Period. The Commission determines the tariff based on the changed financial and operational parameters applicable to that Control Period. The Project Cost would be the main component in determining the quantum of tariff in any Control Period. The tariff from one Control Period to another Control Period would increase when the Project Cost increases. In the case of Renewable Energy Projects, except for the Solar Projects, the Project Cost has been on an increasing trend from one Control Period to another Control Period. Therefore, the generic Tariff Orders prescribed that, the date of submission of the PPA to this Commission for its approval is more appropriate and relevant for determining the tariff applicable for sale of energy to the ESCOMs from a Project. Therefore, a prospective Project Developer would first enter into a PPA in a Control Period and try to complete the Project within that Control Period, so that he would get a reasonable tariff for the Project Cost incurred on the Project. Having regard to this principle, the generic

Tariff Orders have laid down the criteria for the applicability of the tariff determined for the Project to be established during the said Control Periods. The generic Tariff Orders dated 18.1.2005 and 11.12.2009 specifically state that, the tariff determined in these Orders are applicable to all the PPAs filed before the Commission on or after the dates mentioned in the respective generic Tariff Orders. The generic Tariff Order dated 1.1.2015 contains the following provision for the applicability of the tariff determined in the said Order :

> *"The Commission decides that the norms and tariff determined in this Order shall be applicable to Mini-Hydel Power Plants, Bagasse-based Co-generation Power Plants and Rankine Cycle-based Biomass Projects with water cooled condensers, that get commissioned during the period 01.01.2015 to 31.03.2018 for which PPAs have not been entered into, prior to the date of this Order. For Projects commissioned prior to the date of this Order, the generic tariff determined by the Commission as on the date of commissioning of the Projects shall be applicable. Further, in respect of Project for which Power Purchase Agreements have been entered into prior to the date of this Order, the tariff as per the said Agreement shall be applicable even if the Project are commissioned subsequently. The tariff determined in this Order shall be applicable for the term of the Power Purchase Agreements."*

The effect of the above provision regarding the applicability of the tariff determined in this Order is that, the tariff determined in this Order would apply to all the new Projects, for which PPAs would be entered into on or after 1.1.2015. The provision regarding the applicability of this generic Tariff Order is incorporated, keeping in mind the new Projects which would enter into PPAs subsequent to 1.1.2015. The generic Tariff Orders are silent regarding its applicability to the Projects which have been developed and commissioned without a PPA in any of the Control Periods.

(c) As already noted, the construction period for a new Renewable Energy Project is considered to be two years from the date of execution of the PPA. Therefore, a Project Developer gets the tariff applicable to the Control Period in which the PPA is executed. For one reason or the other, if a Project Developer is not able to complete a Project within the Control Period and the commissioning has taken place in the subsequent Control Period, such Project Developer would get the tariff prevailing at the time of submission of the PPA to the Commission for approval. In case, a Project Developer has developed and completed the Project without executing a PPA and has come forward for sale of energy after commissioning of the Project, one has to decide, which Control Period should be made applicable to the said Project for fixing the tariff. The answer to this question mainly depends on the fact, during which Control Period the Project Developer has incurred the whole or the substantial part of the Project Cost. We are of the considered opinion that, at least a period of eighteen months is required for completion and commissioning of a Cogen Plant. In that event, any Cogen Plant, which is commissioned within one year after the start of a Control Period, is to be governed by the tariff for the previous Control Period.

(d) In the present cases, the following are the Cogen Plants which are commissioned within one year from the commencement of a new Control Period :

Sl. No.	O.P. No.	Petitioner	Control Period	Commercial Operation Date
1	47/2016	Jamakhandi Sugars Private Limited-1	01.01.2010 to 31/12/2014	2010
2	63/2016	Nirani Sugars Limited	-do-	05.03.2010
3	61/2016	Shree Renuka Sugar Limited	-do-	11.01.2010
4	43/2016	Vijayanagar Sugars Private Limited	-do-	05.03.2010
5	53/2016	Bhalkeshwar Sugars Limited	01.01.2015 To 31.03.2018	10.01.2015
6	59/2016	Indian Cane Power Limited	-do-	01.09.2015
7	51/2016	Jamakhandi Sugars Private Limited-2	-do-	01.01.2015

Therefore, the Cogen Plants in OP Nos.43, 47, 61 and 63 of 2016 shall be governed by the tariff determined in the generic Tariff Order dated 18.1.2005 and the Cogen Plants in OP Nos.51, 53 and 59 of 2016 shall be governed by the tariff determined in the generic Tariff Order dated 11.12.2009. If any of the above Cogen Plants can produce evidence to show that a substantial part of the Project Cost has been incurred in the new Control Period itself, the Commission is open to revise the tariff in such cases. In respect of the other Cogen Plants involved in these Petitions, the tariff prevailing as on the date of commissioning of the respective Cogen Plants would apply to these Cogen Plants. Therefore, we answer Issue No.(1) accordingly.

12) **<u>ISSUE No.(2)</u>:** *Whether the Tariff Order dated 22.1.2015 revising the fuel cost for the existing Biomass Cogen Plants and determining the fixed cost for them is to be applied, as it is?*

(a) The learned counsel for the Cogen Plants submitted that, in respect of the Cogen Plants falling under the generic Tariff Orders dated 18.1.2005 and 11.12.2009, the generic Tariff Order dated 22.1.2015, as revised in respect of the Bagasse-based Cogen Plants, is to be made applicable.

(b) The revision of fuel cost for the existing Biomass Generating Plants, as per the Order dated 22.1.10215, applies for the Cogen Plants which have entered into PPAs as per the generic Tariff Order of 2005 and earlier, and the generic Tariff Order of 2009. Such Cogen Plants are liable for supply of power for a period of twenty years from the COD. In respect of such Cogen Plants, the average Fixed Cost for the first ten years was worked out at `1.31 per unit for the Cogen Plants commissioned as per the generic Tariff Order dated 18.1.2005, and at `1.86 per unit for the Cogen Plants commissioned as per the generic Tariff Order dated 11.12.2009. These Fixed Costs will remain the same for the life of the Cogen Plants and the Fuel Cost, which varies from year-to-year is being added on, to arrive at the total tariff payable for the energy supplied from a particular Cogen Plant. This methodology is appropriate, when a Cogen Plant supplies power for the whole term of the PPA. In the present cases, the Cogen Plants, which are commissioned between 1999 and September, 2015, have to supply energy only for five years, from FY17 to FY21. The average Fixed Cost per unit for the years, from 2017 to 2021, is quite different from the average ten years' tariff determined in the Order dated 22.1.2015. Therefore, we hold that, the Tariff Order dated 22.1.1015 determining the Fixed Cost for the existing Cogten Plants cannot be made applicable, as it is, to the Cogen Plants involved in these Petitions. Accordingly, we answer Issue No.(2) in the negative.

13) **ISSUE No.(3):** *If Issue No.(2) is held in the negative, whether the tariff should be different for the Cogen Plants commissioned in different years of a Control Period, adopting the principles and methodologies stated in the Tariff Order dated 22.1.2015?*

(a) Applying the accepted and approved norms for determination of the Fixed Cost per unit, as applied in the Tariff Order dated 22.1.2015, it can be seen hat, the average five years' Fixed Cost, for FY17 to FY21, varies for the Cogen Plants commissioned in different years of a Control Period. As already noted, irrespective of the year of commissioning in the present cases, the power is being purchased only for five years. Therefore, we are of the considered view that, the Fixed Cost component would be different for Cogen Plants commissioned in different years of a Control Period.

(b) As rightly noted by this Commission in its generic Tariff Order dated 1.1.2015 and the subsequent Order dated 22.1.2015, the Fuel Cost for the Cogen Plants remains the same in any year, though they have been commissioned in different years of a Control Period. After detailed consideration in the generic Tariff Order dated 1.1.2015, the Variable Cost fixed for FY15 was `2.81 per unit. In the said Order, `2.81 per unit for FY15 is taken as the rate for the Base Year and it was escalated at 5.72% per annum. We think, the same rate of escalation may be continued in the present cases, till FY21. Therefore, the Fuel Cost for all the Cogen Plants applicable for FY17 to FY21 is as follows :

Year	**Fuel Cost (`. Ps./per unit)**
FY-17	3.14
FY-18	3.32
FY-19	3.51
FY-20	3.71
FY-21	3.92

(c) Considering the approved norms and parameters in the generic Tariff Orders dated 18.1.2005 and 11.12.2009, the five years' average Fixed Cost from FY17 to FY21 for Cogen Plants commissioned in different years of a Control Period is as detailed below :

Year of Commissioning		**Average Fixed Cost per unit, for 5 years from FY17 to FY21**
I] As per generic Tariff Order dated 18.1.2005 :		
2005	..	0.84

2006	..	0.82
2007	..	0.81
2008	..	0.87
2009	..	0.94

II] As per generic Tariff Order dated 11.12.2009 :

2010	..	1.44
2011	..	1.57
2012	..	1.71
2013	..	1.77
2014	..	1.82

As regards the Cogen Plants established prior to 2005, since no Tariff Orders had been issued by this Commission in respect of those cases, this Commission, by its Order dated 22.1.2015, has adopted the same Fixed Cost to them, as was made applicable to the Cogen Plants established under the Tariff Order dated 18.1.2005.

(d) By adding the average Fixed Cost and the Fuel Cost (VC) arrived at as above, for different years, the tariff per unit for the Cogen Plants commissioned during different years of a Control Period works out as follows :

Year of Commis-sioning		FY17 (`. Ps.)	FY18 (`. Ps.)	FY19 (`. Ps.)	FY20 (`. Ps.)	FY21 (`. Ps.)
	VC---)	3.14	3.32	3.51	3.71	3.92
2005 and earlier		3.98	4.16	4.35	4.55	4.76
2006		3.96	4.14	4.33	4.53	4.74
2007		3.95	4.13	4.32	4.52	4.73
2008		4.01	4.19	4.38	4.58	4.79
2009		4.08	4.26	4.45	4.65	4.86
2010		4.58	4.76	4.95	5.15	5.36
2011		4.71	4.89	5.08	5.28	5.49
2012		4.85	5.03	5.22	5.42	5.63
2013		4.91	5.09	5.28	5.48	5.69
2014		4.96	5.14	5.33	5.53	5.74

(e) Therefore, we answer Issue No.(3), accordingly.

14) **ISSUE No.(4)**: *Whether the purchase of power should be restricted to 501 MW from the Cogen Plants, who approached the Government of Karnataka for a direction to the ESCOMs for purchase of power from the Cogen Plants?*

(a) The Government Order dated 11.11.2016 according approval to purchase power from the Cogen Plants in the State of Karnataka, at the tariff determined by this Commission, was passed as per the proposal given by the South India Sugar Mills Association (SISMA). The said proposal was accompanied by a list of 28 Sugar Factories with an exportable capacity of 501 MWs of power, which were willing to enter into PPAs with the ESCOMs. On consideration of the said proposal and in the background of other facts and circumstances narrated in the Preamble of the said Government Order, the Government of Karnataka accorded its approval to purchase power from the Cogen Plants in the State, at the tariff determined by this Commission. While passing the Order dated 1.12.2016 fixing the interim tariff for supply of power from the Cogen Plants, this Commission restricted the quantum of power to 501 MW.

(b) The said Government Order does not say that, the purchase of power should be restricted to only 501 MW from the 28 Sugar Factories, which have expressed willingness to enter into PPAs with the ESCOMs. From the background and the reasons stated in the Preamble stated in the said Government Order, it can clearly be inferred that, the benefit should extend to all the Cogen Plants in the State, which are willing to sell power at the tariff determined by this Commission.

(c) The difficulties being faced by the Sugar Factories in the State of Karnataka are common to all the Sugar Factories and are not restricted to 28 Sugar Factories alone. The Government of Karnataka has accorded approval for purchase of power from the Cogen Plants with a view to mitigating the difficulties and in the overall interest of the Sugarcane Farmers of the State. Therefore, we are of the considered view that, the purchase of power need not be restricted to 501 MW only. It can be seen that, the total exportable capacity of power offered by the different Cogen Plants, who are before this Commission, may just exceed 501 MW. Therefore, we answer Issue No.(4) in the negative.

15) **ISSUE No.(5) :** *What Order?*

For the foregoing reasons, we pass the following :

ORDER

(a) The tariff payable per unit for the energy supplied from the Cogen Plants commissioned in different years during the period from 2005 or earlier to 2014, shall be as detailed below:

Year of Commis-sioning		**FY17 (`. Ps.)**	**FY18 (`. Ps.)**	**FY19 (`. Ps.)**	**FY20 (`. Ps.)**	**FY21 (`. Ps.)**
	VC---)	3.14	3.32	3.51	3.71	3.92
2005 and earlier		3.98	4.16	4.35	4.55	4.76

2006		3.96	4.14	4.33	4.53	4.74
2007		3.95	4.13	4.32	4.52	4.73
2008		4.01	4.19	4.38	4.58	4.79
2009		4.08	4.26	4.45	4.65	4.86
2010		4.58	4.76	4.95	5.15	5.36
2011		4.71	4.89	5.08	5.28	5.49
2012		4.85	5.03	5.22	5.42	5.63
2013		4.91	5.09	5.28	5.48	5.69
2014		4.96	5.14	5.33	5.53	5.74

(b) The Cogen Plants commissioned within one year after the commencement of the generic Tariff Order dated 1.1.2015 shall be treated as having been commissioned during the year 2014 for the applicability of the tariff;

(c) The Cogen Plants commissioned within one year after the commencement of the Effective Date of the generic Tariff Order dated 11.12.2009 shall be treated as having been commissioned during the year 2009 for the applicability of the tariff;

(d) If any of the Cogen Plants referred to in (b) and (c) above could produce evidence to establish that, the whole or a substantial part of the Project Cost was incurred by it in the year 2015 or 2010, as the case may be, the Commission would then revise the tariff suitably in such cases;

(e) The owners of the Cogen Plants shall produce the Commissioning Certificates in proof of the date of commissioning of the Cogen Plants / any of its Units, before entering into a PPA with the ESCOM concerned;

(f) The owners of the Cogen Plants, who are entering into PPAs with the ESCOMs for sale of energy, as per the tariff determined in this Order, shall do so within one month from the date of this Order, failing which, they shall not have any claim for entering into a PPA with any ESCOM; and

(g) Office is directed to keep this original Order in OP No.38/2016 and copies thereof in the other connected Petitions herein.

Sd/-	Sd/-	Sd/-
(M.K. SHANKARALINGE GOWDA) CHAIRMAN	(H.D. ARUN KUMAR) MEMBER	(D.B. MANIVAL RAJU) MEMBER