

BEFORE THE KARNATAKA ELECTRICITY REGULATORY COMMISSION, BANGALORE

Dated : 10th October 2013

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|-------------------------------|----------|--------------------------------------|
| 1. Sri M.R. Sreenivasa Murthy | Chairman | } (Will pronounce
separate Order) |
| 2. Sri Vishvanath Hiremath | Member | |
| 3. Sri K. Srinivasa Rao | Member | |

OP No.19/2012

BETWEEN :

Indian Wind Energy Association (InWEA)
1st Floor, A-Wing, AMDA Building
7/6, Siri Fort Institutional Area
August Kranti Marg
NEW DELHI – 110 049 ..
[Represented by M/s. Shridhar Prabhu Associates, Advocates]

PETITIONER

AND

- 1) Bangalore Electricity Supply Company Limited
K.R. Circle
BANGALORE – 560 001
- 2) Hubli Electricity Supply Company Limited
P.B. Road, Navanagar
Hubli – 580 029
- 3) Gulbarga Electricity Supply Company Limited
Station Road,
Gulbarga – 585 101
- 4) Mangalore Electricity Supply Company Limited
Paradigm Plaza, A.B. Shetty Circle
Mangalore – 575 001
- 5) Chamundeshwari Electricity Supply Company Limited

No.927, LJ Avenue
New Kantharaja Urs Road
Saraswathipuram
Mysore – 570 009

- 6) Karnataka Renewable energy
Development Limited (KREDL)
#39, "SHANTHI GRUHA"
Palace Road
Bangalore-560 001

.. **RESPONDENTS**

[R1 to R5 represented by M/s. Justlaw, Advocates and
R6 represented by Shri G.S. Kannur, Advocate]

OP No.36/2012

BETWEEN :

Indo Wind Turbine Manufacturers Association
Suit # A2, OPG Towers
74 (Old #133), Santhome High Road
Chennai – 600 004
[Represented by Petitioner's Representative]

.. **PETITIONER**

AND

- 1) Bangalore Electricity Supply Company Limited
K.R. Circle
BANGALORE – 560 001
- 2) Mangalore Electricity Supply Company Limited
Paradigm Plaza, A.B. Shetty Circle
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Gulbarga – 585 101

6) Karnataka Renewable energy
Development Limited (KREDL)
#39, "SHANTHI GRUHA"
Palace Road
Bangalore-560 001

.. **RESPONDENTS**

*[R1 to R5 represented by M/s. Justlaw, Advocates and
R6 represented by Shri G.S. Kannur, Advocate]*

OP No.43/2012

BETWEEN :

- 1) Indo Wind Power Association
"SHAKTHI TOWERS', Tower-1
Door No.E, 6th Floor
No.766, Anna Salai
CHENNAI – 600 002
- 2) M/s. Mytrah Energy (India) Ltd.
8001, 8th Floor, Q City
Nanakramguda
Gachibowli
Hyderabad – 500 032

. **PETITIONERS**

[Represented by Petitioners' Representative]

AND

- 1) The Principal Secretary
Department of Energy
Government of Karnataka
M.S. Building
Bangalore-560 001
- 2) Bangalore Electricity Supply Company Limited
K.R. Circle
BANGALORE – 560 001
- 3) Hubli Electricity Supply Company Limited
P.B. Road, Navanagar
Hubli – 580 029
- 4) Mangalore Electricity Supply Company Limited
Paradigm Plaza, A.B. Shetty Circle
Mangalore – 575 001
- 5) Gulbarga Electricity Supply Company Limited
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- 6) Chamundeshwari Electricity Supply Company Limited
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Saraswathipuram
Mysore – 570 009
- 7) Karnataka Renewable energy
Development Limited (KREDL)
#39, "SHANTHI GRUHA"
Palace Road
Bangalore-560 001 ..

RESPONDENTS

[R2 to R5 represented by M/s. Justlaw, Advocates and
R7 represented by Shri G.S. Kannur, Advocate]

COMMON ORDER

I am in general agreement with the facts and details of submissions brought in the common order of my colleagues. However, in my view the time is not ripe at this juncture for reasons detailed hereunder, to consider revisiting determination of tariff to the petitioners by curtailing the control period.

On the question of law, I am agreeable with the fact that u/s 62(1)(a) of the Act r/w 62(4) of the Electricity Act, 2003, and u/s 9 of the 2011 Regulations the petitions under consideration are maintainable. In this regard, this Commission by its order dated 4.4.2003 decided, that "in our view the point of maintainability can also be considered along with the other points raised in the petition". Accordingly, the question of maintainability having been decided, I will proceed to consider the merits on the points raised by the petitioners.

1) OP 19/2012

- 1.1 In all the three petitions, the most common plea by the petitioners is that due to change in market conditions it is no longer viable to install projects within the parameters specified by the Commission and it is urgently required to revise tariff for procurement of power from new Wind Energy Generators (WEGs); the assumption considered for parameters of tariff like capital cost, long term interest, etc, have changed significantly subsequent to the issue of the tariff order dated 11.12.2009 on account of changes in market conditions. The petitioners have requested curtailment of control period and redetermination of tariff.
- 1.2 The petitioner herein requests consideration of provision of Section 62(1), 86(1)(e) and 181 of the Act and KERC Regulations 2004. Control period of five years was prescribed under Clause 5.8 of KERC Regulations 2004 by this Commission.

- 1.3 The petitioner submits that as per C-WET, at 80 meters hub height the wind power potential in Karnataka is of the order of 13593 MW. The petitioner has cited CERC (Terms & Conditions for Tariff Determination from Renewable Energy Sources) Regulations 2012 and requested this Commission to revisit the tariff determination of Tariff Order 2009 and curtail control period up to March 2012 to determine tariff for prospective projects with effect from 1.4.2012. The petitioner pleads that the guiding principle of CERC Regulations, 2012, appreciated and accepted by many SERCs, should form the basis for the Commission to revisit and determine the tariff as requested.
- 1.4 The petitioner submits that each of the windy sites in the State offering good wind potential is already exhausted in order to harness newer wind sites offering lower WPD, lower CUF necessitating larger wind turbines of Class-III or lower to be employed. The petitioner has also cited increase in cost of the project elements due to increase in hub height, due to forecasting and scheduling requirements under CERC Regulations 2010 to justify its requests to sanction increased tariff. Indexing mechanism has also been suggested to be adopted or in the alternative to reduce control period to 2 to 3 years.
- 1.5 Suggestions have also been made on figures to be adopted for CUF, depreciation, O & M expenses loan tenure and interest on working capital, return on equity, etc, and requests for levelized tariff of Rs.4.92/Kwr has been placed, along with working details.

2) **RESPONDENTS' CONTENTIONS**

- 2.1 The respondents, in addition to raising the objections on maintainability of the petitions, have commented on some of the aspects of the merits of the petition. As for the question of maintainability, this has already been addressed by me. On the question of the petitioners drawing support from CERC Regulations 2012 and on the orders/Regulations of SERCs of 2012, it is submitted that these Regulations were not in existence at the time of passing the impugned order by this Commission. CERC Regulations were to come into force from 1.4.2012 and will be in force for a period of five years. Hence, the question of seeking review based on Regulation which came into being subsequent to tariff order 2009, does not arise.
- 2.2 No independent material is placed by the petitioner warranting reconsideration of tariff.
- 2.3 The petitioner seeking Rs.5.25 crores/MW has not been substantiated with data.
- 2.4 At the time of the hearing for issue of tariff order 2009, this Commission had directed the generators to maintain the data base on all completed projects and furnish audited figures to ESCOMs, which has not been done.
- 2.5 Further, the respondents have furnished suggested figures on CUF, useful life, depreciation, O & M expenses, working capital, return on equity, interest on Working Capital, etc.
- 2.6 The proposed tariff of Rs.4.92/KW is not acceptable.
- 2.7. KREDL's Submissions : it is informed by KREDL that 4.5 MW of wind power projects have been installed by them in Belgaum and Bellary. It is submitted

that such a project if it were to be installed at present they may have to put up higher capacity wind turbine in the same area with higher cost implication. It is also submitted that so far 2150 MW capacity has been commissioned out of 112953 MW of capacity wind power projects allotted; major wind potential areas are in the Districts of Tumkur, Chitradurga, Gadag, Haveri, Belgaum, Shimoga, Davnagere, Bellary, Koppal, Hassan, Bijapur, Raichur and Bagalkot.

3) ANALYSIS

I have considered the submissions of the petitioner as well as that of the respondents. Various issues arising out of the submissions is analysed hereunder :

- 3.1 The petitioner has not supported its contention related to majority of wind sites offering good potential having been exhausted with sufficient data detailing number of such sites, quantum of sites exhausted, balance that are to be tapped, etc, to assist the Commission with appropriate base data for consideration.
- 3.2 In respect of the petitioner's contention that on account of change in market conditions revision of tariff is necessitated curtailing control period, the respondents have raised objection stating that no material has been placed by the petitioner to substantiate its claim for significant change in the values of the parameters. This contention of the respondents merits acceptance.

Further based on the material furnished by the petitioner in regard to Wholesale Price Index (WPI) for Cement, Steel and Electrical & Machinery for the year 2005 to 2013, I would be detailing the analysis separately.

- 3.3 The petitioner has produced C-WET statistics claiming that 13593 MW potential is available at 80 meters hub height. A perusal of Annexure P-5 at page 71 of the petition reveals that as on 31.3.2012, only around 22.5% of potential at 50 meters hub height has been utilized. Similarly, at the hub height of 80 meters only 14.22% of potential has been utilized.
- 3.4 It is noted that the installed capacities of wind power in the State by all agencies together, during the years 2009-10, 2010-11, 2011-12 have been of the order of 145.4, 254.1 and 206.7 MW respectively. However, no break-up details in respect of potential exhausted at 50 meters hub height and at 80 meters hub height have been provided. The reasons for not having taken up projects/not tapping large quantity of potential at 50 meters hub height, have also not been outlined.
- 3.5 The respondents' contention in regard to details of cost of projects installed in the State of Karnataka not having been provided merits acceptance. The petitioner's demand for consideration of increased capital cost to the level of Rs.575 lakhs/MW, derives no support from any material submitted justifying the increased cost.
- 3.6 During the public hearing, the petitioner was advised by this Commission to produce relevant information in regard to change in market conditions, significant increase in cost, etc; further also to produce WPI from 2005-06 to 2012-13 on Steel, Electrical & Machinery and Cement.
- 3.7 In response, by its Memo dated 13.8.2013 the WPI indices for FY 2005-06 to FY 2012-13 on Iron and Steel, Electrical & Machinery, Cement, has been produced by the petitioner for each of the items like Iron & Steel, downloaded from the website of the Ministry of Commerce & industry. The percentage year-on-year increase of WPI has been computed at

our end using the submitted material on Iron & Steel, Electrical & Machinery and Cement. The same has been included in the table below, as additional columns.

WHOLESALE PRICE INDICES (Produced vide Petitioner Memo dated 13.8.2013)

Financial Year	Iron & Steel	Year-on-Year Increase %	Electrical & Machinery	Year-on-Year Increase %	Cement	Year-on-Year Increase %
2012-2013	152.49	5.82	132.96	2.49	168.76	7.48
2011-2012	144.10	4.00	129.73	4.74	157.02	4.08
2010-2011	138.56	8.40	123.86	1.47	150.87	1.33
2009-2010	127.82	-0.62	122.07	-1.26	148.89	7.60
2008-2009	128.62	10.56	123.63	4.22	138.38	0.28
2007-2008	116.33	14.24	118.62	6.69	138.00	16.33
2006-2007	101.83	1.61	111.18	7.87	118.63	16.11
2005-2006	100.22	-	103.07	-	102.17	-

- 3.8. Although the Petitioner has claimed that due to change in market conditions, after the Tariff Order dated 11.12.2009 it has become unviable to install the Projects as per the parameters fixed by this Commission, in respect of each of the commodities like Iron & Steel, Electrical & Machinery and Cement the maximum percentage increase, considered from the table, on year-on-year basis during 2009-2013, is seen to be significantly less, corresponding to the maximum percentage increase during 2005-06 to 2008-09- almost about 50% less

for each commodity- . This goes to show that the change in market conditions by way of cost increase percentage in respect of vital commodities associated with WEG Projects have not seen significant increase, as claimed in the petition, after the issue of the Tariff Order dated 11.12.2009.

- 3.9 In fact, the increase between 2005 and 2009 has been quite significant as compared to 2009-2013 and one finds that the contention of the Petitioner in this regard lacks basis and finds that it is not getting explained and supported by facts.
- 3.10 Perhaps, the reason for filing petition in the year 2012 seeking reliefs as prayed for seems to be the fact of Regulations/orders by CERC and the other SERCs in 2012 with sufficiently high levels of capital cost and other parameters. This, however, does not seem to provide a basis for granting the relief sought considering that this Commission's order was issued in 2009; in fact the capital cost allowed at that time by this Commission was among the highest.
- 3.11 In case of KREDL's submission it is seen that the details regarding date of commissioning, cost incurred, type of land (forest, revenue, private, etc) details have not been furnished. Further also about the capacity of wind power potential out of 11293 still to be tapped is around 8000 MW as per figures furnished by KREDL. KREDL has not submitted any information when these projects were allotted and the reasons associated with delay in development in the case of such projects. Under the circumstances, KREDL submissions does not carry much of weight in offering information for analysis in respect of curtailing control period and revisiting tariff determination.

4) SUMMARY OF FINDINGS

- 4.1 Maintainability of petition is upheld.
- 4.2 For consideration of merits of petition, it is seen that no supporting information, as detailed in the foregoing paragraphs regarding significant change of parameters vis-à-vis tariff order 2009, have been made available by the petitioner.
- 4.3 Only aggregate commissioned capacity and average cost of project commissioned during FY 2009-10, FY 2010-11, FY 2011-12 is furnished at Annexure P-23. The petitioner could have done well to furnish project cost of each of the projects with break-up details of actual costs that have seen significantly high levels in comparison with the provisions in tariff order 2009.
- 4.4 The petition, therefore, lacks merit in terms of its submission relating to the contentions of the petitioner and is liable to be rejected.

5) OP 36 of 2012 :

Petitioner Submissions : The petitioner Association has placed the same submission as InWEA in regard to curtailment of control period and revisiting tariff determination of Tariff Order 2009. The levelled tariff, as per assumed parameter values by the petitioner, has been projected at Rs.5.06 per KWh and sought to be fixed at that level for future WE projects for a tariff period of 13 years.

- 5.1 The petitioner has sought adoption of CERC guidelines as per its Regulation of 2012.
- 5.2 Like InWEA, this petitioner also cited increased prices of cement, steel, land, manpower cost, etc.
- 5.3 On most of potential wind site resources having been exhausted, WPP costs in Karnataka varying from Rs.600 to 700 lakhs per MW etc. submissions have been made seeking fixation of Rs.575 lakhs/MW as capital cost.
- 5.4 Importantly, it is submitted by the petitioner itself that wind turbine prices having peaked in 2009, prices have declined by 18 % in Europe for delivery in 2010. In USA the prices are said to have declined by about 15 %. Studies also are reported indicate declining trend in China/India on prices.
- 5.5 Projects analysed by CERC
- 5.5.1 IREDA financed projects, 13 in No. Totally 390 MW capacity during FY 2010-11, FY 2011-12 in Gujarat at an average capital cost of Rs.5.2 crores/MW have been mentioned.
- 5.5.2 Similarly that of PSUs installed projects in Gujarat totalling to 295 MW, each in the range of 1.5 to 2.1 MW at Rs.5.47 crores/MW, is also mentioned. Those of UNFCC registered projects in Gujarat also mentioned. However, cost of any such projects in Karnataka do not find any mention.
- 5.6 Submissions made in O&M cost, loan interest, CUF, etc.
- 6) Respondents' contentions :

- 6.1 Petitioners have requested this Commission to adopt guidelines of CERC Regulations 2012, but adoption is not binding; Project cost indicated in CERC Regulation cannot serve as a benchmark, nor that of other State ERCs.
- 6.2 Invited attention to diverse and varying factors in each State influencing tariff determination; invited attention to Jogimatti in Karnataka achieving 39 % PLF.
- 6.3 Cost of wind turbines has been falling on account of tremendous improvements in design and production of WTGs, which should reduce costs of WTGs and tariff.
- 6.4 Manufacturers should submit their actual cost incurred with full break-up details of material, labour, overheads and profits to justify cost of Rs.325 lakhs submitted.
- 6.5 The large sized, viz. 50-100 MW scale, plants preferred by investors in Karnataka should bring down cost of projects on principle of scales.
- 6.6 Available NH, SH roads in Karnataka and nearness of KPTCL substations to wind farms should contribute to reduced evacuation & infrastructure costs.
- 6.7 For imported components of Wind Turbines, the available benefit of customs duty exemption is cited.

- 6.8 Effect of US \$ Vs. Rupee parity cannot be judged in the absence of submission of details of imported components ,by the petitioner, in wind turbine manufacture.
- 6.9 No increase in statutory charges for forest or revenue lands, but in case of private land some cost increase is agreeable.
- 6.10 Commented also on EHV evacuation cost.
- 6.11 On CUF : Against an allotted 7000 MW only about 3000 to 3500 MWS, as per KREDL, have been tapped; land also sanctioned by Government. Still large chunks of 300 to 350 WPD sites have not been developed.
It will be unfair to give higher tariffs to associated plants of project sites, now to be developed, which were allotted way back in time and remained blocked without being developed for long.

This contention merits acceptance.

KREDL developed plants have been achieving very high levels, even 39% PLF, details of which is furnished.

- 6.12 Have also provided views on allowable depreciation , O&M expenses, loan tenure and interest, RoE, Debt Equity Ratio; working capital and interest on capital, etc.
- 6.13 Requested to dismiss the petition.

7) ANALYSIS :

- 7.1 Almost all the respondent contentions merit acceptance.
- 7.2 During the public hearing the representative of InWMTA Sri Surendra was directed to furnish the capability of the Association to supply Class-III and lower Class of turbines for the wind power project to come up in the Karnataka State. He was also asked to explain how present tariff affects him in the manufacture of wind turbines.

The information still awaited.

The President of InWMTA Sri D.V.Giri presented during the public hearing that for the hub heights going from 70 to 80 meters to 100 meters the capability for manufacture exists and new generating machines can bring increased PLF even at low WPD. On triple shift basis about 8000 MW of turbine capacity can be produced even though blades, gearbox, hydraulics, etc, were to be obtained on import.

- 7.3 However, as seen from the above submissions in the public hearing it is not getting explained how increased tariff can be agreed to when Petitioner itself has clearly detailed declining trend of costs of wind turbines in Europe, USA, China and India, after peaking in 2009. In case there were other factors same should have been detailed before the Commission.
- 7.4 What factors and reasons affect Wind Turbine Manufacturer (WTP) on account of prevalent so called unviable wind tariffs and how, is not getting explained.

- 7.5 On the wind locations, details of total availability, time of allotment, wind power density, not furnishing reasons for not developing projects and keeping undeveloped sites if any, difficulties associated with development of such sites, time and cost overruns, if any, and associated reasons, etc., have not been provided.
- 7.6 The WPI details furnished by InWEA vide their letter dated 12th Sept. 2013 – for the period FY 2005-06 to 2012-13 shows that maximum of all year-on-year increases in WPI of steel, electrical machinery and cement during 2005-2009 is 16.33 %, while the corresponding figure for 2009-13 is 8.4 %.
- The analysis furnished in the case of InWEA equally applies here.
- This contributes in a negative way to the contention of petitioner relating to significant increase in prices after issues of Tariff Order 2009 by this Commission. Other factors, if any, contributing to increased costs have not been placed before this Commission.
- 7.7 Potentials to the extent of 78 % as on 31.3.2012 as per C-WET, are yet to be tapped at 50 M hub height. No break-up details of such sites nor the reasons for not tapping is made available. On the contrary already talks about installing balance 86 % of 80 M hub height projects is emerging seeking increased cost for such projects.
- 7.8 No information is made available about availability/non-availability of infrastructure, turbines, associated material, required components of import, associated costs, timelines, etc., for development of projects at 80 M hub height.
- 7.9 Details of IREDA funded projects, if any, in Karnataka have not been furnished.

- 7.10 Concern of respondents that projects allotted much earlier and not developed till date might end up getting benefits of increased tariffs, if allowed, merit active consideration. Petitioner has not furnished any information on such projects.
- 7.11 Submitted projects were commissioned in March 2008. Costs of these are more than Rs.4.70 Cr/MW approved in Tariff Order 2009, but still not brought before Commission during Tariff Order 2009 proceedings.
- 7.12 It is paradoxical that with declining wind turbine costs and no significant increase in WPI of cement, steel and electrical machinery, furnished details of projects commissioned in 2010, 2011 show considerable levels at 6.78 Cr/MW, 7.709, 6046, etc. In case there are other factors affecting the project costs these do not get explained for lack of sufficient information.
- 7.13 No reasons for analysis provided for wide fluctuations in PLF of WEGs during 2011 and 2012.

8) SUMMARY OF FINDINGS :

- 8.1 With admitted declining trend in cost of turbines and no other supporting information for other claims the prayers of the petitioner are liable to be rejected.

9) **OP 43 of 2012**

- 9.1 The petition is filed u/s 62 r/w 80(1)(a), 86(1)(b), 86(1)(e) and 94 of Electricity Act, 2003 and Regulations 9 and 12 of KERC Regulations 2012. The petition is filed for curtailment of control period to 31.3.2012 and for

determination of tariff for future WEG Projects in Karnataka u/s 61(h) of the Electricity Act, 2003. The petitioners in this case are InWPA registered under Tamil Nadu Society Registration Act, 1975, and M/s. Mytrah Energy India Pvt. Ltd an Independent Power Producer.

- 9.2 Contention of the petitioner is based on various provisions of Electricity Act, 2003 and the Regulations 2011 of KERC. There is submission that WEG projects have become unviable due to enormous increase in capital cost, interest rates, statutory charges, etc, and hence petition is filed for early revision of tariff for WPPs.
- 9.3 The petitioner expressing difficulties faced and as reason for revisiting order dated 11.12.2009 has furnished details of capital cost, land, etc. Particularly in case of land, on account of various provisions of the Government of Karnataka, most of the forest and revenue lands have been exhausted and the private lands have to be resorted to for installation of new projects affecting the cost.
- 9.4 The petitioner have produced comparative cost of various SERCs like Gujarat, Maharashtra, Tamil Nadu and it is noted that these orders are pertaining to 2012 and FY 2012-13.
- 9.5 It is the contention of the petitioner that majority of wind projects are in remote areas where grid interconnection does not exist contributing for evacuation/infrastructure cost to developers. They have also contended about increased statutory charges.
- 9.6 The petitioner has furnished a tabulated statement for various stations located in the Districts of Chitradurga, Chikmagalur, Bellary, Gadag, Belgaum and Dharwad thereby furnishing details of WPD and

corresponding CUF. It is claimed that most of the wind potential sites at Chitradurga, Belgaum, Gadag and Bellary Districts have already been utilized and PPAs have been finalised. The scope for development of potential sites as listed by C-WET is restricted, it is claimed. Further, since Chickmgalur district has been declared eco sensitive by the Government of Karnataka, projects to the extent of 132 MW have been surrendered and out of the balance 864 MW also no single MW has been realized.

Petitioner has based its claim for revision of tariff on statistics with regard to debt equity ratio, Interest on term loan, interest on Working Capital return on equity, O &M expense, statutory charges sharing of CDM benefits. Based on these suggested values for the determination of tariff petitioner prays that the control period should be limited to 3 years and revision of tariff exercise should be taken up.

During the court hearing the petitioners on 13th December 2012 was directed to produce the actual CUF obtained by its Members in Karnataka; also to provide details of actual project cost incurred by its members atleast for one year and the cost details of projects from the neighbouring States.

In response the petitioners provided the CUF details of C-WET wind mast details with average CUF in Karnataka as on 31.10.2012 in a tabular form and also the details of project cost of three of the projects in Karnataka along with year of commissioning details. Additionally the project cost and the year of commissioning in case of projects in other States also have been furnished.

It is noted that although the project cost information along with commissioning years have been furnished, the reason for high levels of project cost, despite declining trend in the cost of wind turbines and not so significant increase in the cost of commodities like iron, steel, cement and electrical machinery during 2009-2013 does not get explained. Further, the details of CUF produced were that of C-WET wind mast details with average CUF in Karnataka as on 31.10.2012, and not actually achieved PLF of members' projects, as sought.

- 9.7 It is seen that the petitioner vide its memo dated 13.12.2012 have furnished the Districtwise capacities of wind power projects allotted, commissioned/not commissioned, surrendered, etc, details.

However, the information about the date of allotment, the reason for not commissioning the project if not commissioned, reason for surrendering the projects and also the reasons for keeping the project sites idle for the duration between the date of surrender and the date of allotment, etc, have not been outlined.

In this context as already explained, reportedly after getting allotment of wind sites many developers for unexplained reasons do not develop the project in sufficient time. But later the same is either surrendered or transferred to some other developer. In the absence of timely development by the allottee, the project site which could have contributed to the generation of energy is seen to have remained unexploited.

- 9.8 By its Memo dated 11.1.2013, the petitioner has produced details of project costs, certified by Chartered Accountants. The annexure-1

containing these details has dealt with 4 projects in Karnataka in addition to several projects in other states and indexation cost of CERC for 2012-13, 2013-14. The projects in Karnataka as certified by the CAs for Tadas, Swastic Construction, Tupadahalli and Axeona Wind Energy projects have been detailed as ranging in cost from Rs.5.695 crores/MW to Rs.6.24 Crores/MW.

9.9 Additionally projects assigned under various modalities have been produced in Annexures. Details of yearwise capacities assigned to various ESCOMs in MW under PPA and Wheeling and Banking rules also been furnished. Vide Annexure-4, the petitioner has furnished information on base rate/effective interest rate of Banks with effect from 2009 up to 2013 varying from 11.75% to 13.75%, exchange rates from 2009 to 2012 varying from Rs.46.53 to Rs.53.87 for one US dollar and also the primary lending rate from 2009 to 2012 varying from 11.75% to 14.75%.

9.10 M/s.Mytrah Energy (I) Limited, the 2nd petitioner, had raised issues related to letter of credit and associated rebate of 1.8% during the public hearing.

The petitioner has also provided replies to the objections filed by the respondent on the question of maintainability.

As already dealt with, the question of maintainability of all the petitions has been addressed by this Commission and the petitions have been held to be maintainable.

10) RESPONDENTS CONTENTION (GESCOM AND CESC)

- 10.1 Preliminary objection has been raised vide their memo dated 11.1.2013 on the maintainability of the petition. This has been countered by the petitioners also.

This Commission has already decided on the question of maintainability of the petitions.

- 10.2 Further, objections have been raised stating that CERC Regulations 2012 have been finalized u/s 62 r/w 79 of Electricity Act. It is an admitted fact that these Regulations were not in existence at the time of passing of the impugned order. In addition on each of the parameters of tariff determination like capital cost, capacity utilization, interest on loan, interest on working capital, loan tenure, return on equity, O & M expenses and sharing of CDM benefits they have provided their responses to the petitioners' contention.
- 10.3 The respondents in addition vide their memo dated 13.8.2013 have raised most of the contentions raised by a memo of the same date in respect of InWTMA in OP 36/2012 other than those pertaining to wind turbines which are specific to the petition in OP 36/2012.

11) **ANALYSIS**

- 11.1 The contentions raised by the respondent have been dealt by me while analyzing the various aspects of the contentions raised against OP 36/2012 and the relevant analysis points apply to this petition, OP 43/2012, also.
- 11.2 The petitioner has furnished details of WPI on monthly basis between 2009 to 2013 on items like Iron & Steel, Electrical & Machinery and

Cement. However, for the comparison between indices of wholesale price between the period of tariff order 2005 to 2009 and 2009 till the date of public hearing the stake holders were requested to furnish the details of wholesale price indices for this period between 2005 and 2009 also.

In the above respect InWEA vide their Memo dated 13.8.2013 have furnished the wholesale price indices between 2005-06 to 2012-13 for the commodities of Iron and Steel, Electrical & Machinery and Cement, which is also adopted here for our consideration including the analysis made in OP 19/2012 as per tabular column for duration of 2005-06 to 2012-13 on year-on-year percentage increase in the index of various commodities.

Our analysis on the petition OP 19/2012 pertaining to InWEA, the same line of arguments can be extended to these petitioners also. Here also it is seen that the main contention has been an enormous increase in the cost of commodities involved in the development of WEG projects and cost increase due to changed market conditions. Based on the above analysis of WPI year-on-year increase percentages, I am not in a position to agree to the contention of the petitioner that there has been enormous increase in prices of capital cost, etc. As analyzed in OP 19/2012, it is seen that the maximum year-on-year increase percentage during the period 2005-2009 has been of the order of 16% as compared to the maximum increase on year-on-year basis for the period 2009 to 2013 which is getting pegged at 8% only. Hence it is to be said the contention of the petitioners is not getting supported factually.

- 11.3 As regards land, although the petitioner has detailed various types of land on which WEGs are to be installed and the associated issue. In this connection, the petitioners could have done better by giving details of various projects placed in different types of land, how much of it has already tapped/ completed, difficulties faced on account of issues connected with these lands, time and cost over runs experienced, etc.
- 11.4 The petitioner has compared the tariff order of 2009 with the tariff order, Regulations issued in 2012 by CERC and other SERCs. This comparison can definitely be termed to be lacking on the basis of comparison of parameters in largely varying timelines. When the tariff order 2009 of KERC was passed there was no chance of 2012 Regulations being in existence. Accordingly, the comparison is unacceptable.
- 11.5 Also the cost of Wind Energy Projects obtained through tender or bidding can definitely not be equated with that fixed on principles of cost plus basis adopted in the tariff determination process. Generally, costs obtained through tender are getting covered on a different footing compared to tariff determination procedure adopted by ERCs based on recognized principles. The petitioner has furnished details of O & M expenses, capacity utilization the petitioner has furnished its views. Even for the O & M expenses, the quantum of increase if any, details could have been furnished that could have enabled appreciation of difficulties better. In case of CUF/PLF, the petitioner could have done well to produce details of WPD of various sites in the districts of the State, corresponding wind power potential, potential already tapped, balance to be tapped, reasons for not being able to tap the potential areas, etc, which would have enabled appreciation of the facts in connection with reconsideration of tariff determination.

- 11.6 In the case of WPD, the petitioner could have done better by producing details of sites, locations, in each district that would have been already been raised, balance remaining to be tapped/commissioned, etc. In this context, it is of interest to note that as per the information furnished by InWEA in the related petition that out of 8591 MW of potential at 50 meters hub height only 22.5% has been tapped; correspondingly out of the potential of 13593 MW at hub height of 80 meters only about 14% has been tapped as on 31.3.2012 in Karnataka. In contrast to the claim of the petitioner, it appears that lot of wind potential sites are still to be tapped considering the utilization data furnished by InWEA. In case the petitioner is facing real issues like difficulties in acquisition of land the details would have been furnished to the Commission for a better appreciation, otherwise all the contentions remain only as general statements lacking in quantitative information for purposeful consideration.
- 11.7 The petitioners have not furnished the details of when the projects of Chickmagalur District were allotted to them, when they were surrendered, etc, since again it would have given a better understanding of the situation. In the present submission of the petitioner, it is seen that only 132 MW out of 864 MW have been surrendered and the progress and development status of the rest of the projects is not available to the Commission except, for the statement that not even a single MW has been developed.

The issue of WPD and the projects that being in a position to be developed, as stated by the petitioner, are found to be not fully supported with data, status of development, associated difficulties, etc, for a better appreciation.

11.8 Project cost : It is not clear nor any details have been furnished to support the cost levels to the tune of Rs.5.695 crores/MW to Rs.6.24 crores/MW. Though the costs have been said to be of the order Rs.5.695 cores/MW to Rs.6.24 crores/MW, the actual facts in regard to increases WPI and the fact cost of wind turbines being on the decline, it is not clear how the project cost could be to such levels. The same is not getting supported by facts to reconsider tariff provided in the tariff order of 2009.

It is also not clear from the submissions about dates of allotment of projects, reasons for increase in cost as compared to the available tariff in tariff order. The real factors contributing to such increase cost, etc, are not outlined. If there are time and cost over-runs, they are also not been furnished. Lack of information renders difficult to assess the exact factors that are contributing to the increases in costs vis-à-vis the parameters assumed by the Commission to set right deficiencies. Without any associated details, it is next to impossible to assume increased cost just based on general statements.

11.9 Capacity utilization factor and other details produced in Annexure-3 and Annexure-4 come into play only in case one decides to go into aspect of curtailing the period and deciding to revisit the determination of tariff.

11.10 In addition to the contentions raised by the respondents Sri Sriranga on behalf of all the ESCOMs during the public hearing submitted that the petitioners have been contending that tariff fixation could be done by this Commission adopting the CERC and other SERCs figures obtained in their Regulation/Orders of 2012. However, if CERC Regulations were to be followed simply a separate exercise need not be carried out by the

KERC separately. Accordingly, the proposition of the petitioners cannot be accepted. It was pleaded that data with respect to downward trend in costs will be placed before the Commission. The same has not been received. In the opinion of Sri Sriranga the exercise of revising the determination of tariff need not be carried out at this juncture and it is unwarranted since the control period is expiring very shortly by December 2014.

12) CONCLUSIONS :

- 12.1 In my analysis of each of the petitions, the aspects of the petitioners' submissions, respondents' contentions, etc, have been considered in detail and as a result it is my considered view that the prayers of the petitioner to curtail control period of Tariff Order 2009 and for revisiting the tariff determination do not qualify to be taken up at this juncture on account of non-availability of qualitative and quantitative information.
- 12.2 The petitioners have also raised the issues regarding various parameters to be considered in revisiting the determination of tariff by curtailing the control period up to 31.3.2012. For the reason that I have come to the conclusion that the petitions do not qualify to be taken up for revisiting determination of tariff at this juncture, taking up analysis of parameters that have been furnished by the petitioners and by the respondents.
- 12.3 As brought out by this Commission, in our recent order on wheeling & Banking charges for Renewable Energy Generators, since the petitioners InWEA, INWPA & INTMA have not brought out specific details supporting their contentions in support of their prayers, I reiterate that modification of Tariff Order 2009 by curtailing the control period at this juncture is not getting justified and since no adverse impact of finances has also been

established. The time is still not ripe in the absence of sufficient facts and figures since the WPI shows no significant or drastic increase, as claimed. On the contrary, it shows a decreased percentage of increase during 2009-13 compared to 2005 to 2009, cost of turbines show a clear trend of decline after peaking in 2009. Under the circumstances, the claims of petitioners are liable to be rejected.

However, it is not my wish to bar the petitioners to come before the Commission, if so desired, with sufficient facts and figures by filing a fresh application/proposal. The ARR & ERC application filing of ESCOMs/KPTCL is not too far in time (30.11.2013). The cause of petitioners can be taken up at that time appropriately for consideration by the Commission in accordance with law for passing of appropriate orders.

The petitions, therefore, are dismissed.

Sd/-
(K.SRINIVASA RAO)
MEMBER