# KARNATAKA ELECTRICITY REGULATORY COMMISSION

No.9/2, 6th & 7th Floor, Mahalaxmi Chambers,
M.G. Road, Bangalore-560 001

| | | |
|---|---|---|
| **Present:** | Shri. M.K. Shankaralinge Gowda | Chairman |
| | Shri. H.D. Arun Kumar | Member |
| | Shri. D.B. Manival Raju | Member |

In the matter of:

**Revision of tariff for Grid Interactive Megawatt scale Solar Power Plants for FY18**

**S/03/1** Date: **12th April, 2017**

## 1. Preamble:

The Government of India has revised the National Solar Mission targets from 20,000 MW to 1, 00,000 MW to be achieved by the year 2021-22. This targeted capacity is proposed to be achieved through deployment of 40,000 MW of Rooftop solar projects and 60,000 MW of large and medium-scale solar projects. The target for the Karnataka State is fixed at 2300 MW for Rooftop Solar Projects and 3397MW for large and medium-scale solar projects by 2021-22.

The Government of Karnataka has also notified certain amendments to the Solar Policy 2014-21 on 12th January, 2017, wherein it is proposed to install a minimum of 6000MW of solar power projects including grid connected rooftop generation projects upto 2400 MW by March, 2021. The policy also concurs with the Solar RPO target of 8% for the State as fixed by the MNRE, by March, 2021. The capacity addition also focuses on distributed generation spread across all Taluks of the State.

The Karnataka Electricity Regulatory Commission (KERC) is determining the generic tariff for the grid connected solar photovoltaic, solar thermal power plants and rooftop solar photovoltaic and other small solar power plants from time to time based on the market developments and consequent changes in capital costs.

Initially in order to promote investments in solar power plants which had comparatively very high capital cost, the distribution licensees in the Country were encouraged to purchase solar power at preferential tariff fixed by the appropriate Commissions. However, the Central and State Governments have later recognised the advantages of procurement through competitive bidding in the overall interest of all the stakeholders. This change in procurement policy was largely guided by rapid fall in prices of solar modules because of huge production capacity created World over and also technological advancement in increasing the efficiency of the plants. The latest National Tariff Policy 2016 provides for Procurement of power by Distribution Licensee from renewable energy sources through competitive bidding process, from the date to be notified by the Central Government. In pursuance of the same, the Ministry of New and Renewable Energy (MNRE) has issued draft guidelines for tariff based competitive bidding process for grid connected Solar Photovoltaic power projects. The final version of the said guidelines is yet to be notified by the MNRE.

However, even before these developments, the State has initiated the process of solar power procurement through competitive bidding and so far most of the solar power procurement from megawatt scale ground mounted has been made by competitive bidding except the power procurement under farmers' scheme.

The ESCOMs in the State are buying solar power based on rates discovered in the competitive bidding. KREDL, is co-ordinating procurement of Solar power on behalf of the ESCOMs by floating tenders.

The price discovery for solar power procurement in FY13 through bids was in the range of Rs.7.94 to Rs.8.50 per unit. The same in FY14 was in the range of Rs. 6.66 to Rs.8.05 per unit and in FY15 it was in the range of Rs.6.71 to Rs.7.12 per unit.

The Commission has noted that, as compared to the rates determined under Section 62, the rates discovered under Section 63 (Bid Route) are far lower. Currently, the rate determined by the Commission, as per its Order dated 30th July, 2015, is Rs.6.51 per unit for plants to be commissioned upto 31st March, 2018. Media reports show that some States have received bids from developers to supply solar power around Rs. 4.00 per unit. The Commission therefore considered that the tariff and control period set in its Order dated 30th July, 2015 is to be revised.

Accordingly, the Commission had issued a discussion paper in the matter, on 9th February, 2017 inviting comments / suggestions from the stakeholders, to be submitted to the Commission on or before 13th March, 2017 on the following proposals:

1. Curtail the current Control period by one year (i.e., from 31st March, 2018 to 31st March, 2017)
2. To consider the capital cost of solar PV projects at Rs.463.76 lakhs per MW and fix the levelized tariff for 25 years at Rs.4.51 per unit.

In response to the said discussion paper, various Stakeholders, including KREDL and some of the ESCOMs have submitted their written comments / suggestions. The Commission also held a public hearing in the matter on 22nd March, 2017 in the Court Hall of the Commission. The stakeholders present made their oral submissions before the Commission. The inputs provided by the stakeholders and the decisions of the Commission on the same are discussed in the subsequent paragraphs of this Order.

The List of the stakeholders who have filed their comments/suggestions and those who have made oral submissions in the public hearing is given in the Annexure to this Order.

The Commission considers that, for the reasons discussed above, its Orders dated 30th July, 2015 needs to be modified. Hence the following:

**ORDER**

In exercise of powers conferred under Section 62(1)(a) read with Section 64 and Section 86(1)(e) and other enabling provisions of the Electricity Act 2003, the Commission has decided to review the current generic tariff determined for megawatt scale solar power projects in the State and hence this Order.

**1. Revision of Tariff for Megawatt scale Solar PV and Solar Thermal power plants**

The decisions of the Commission on the capital cost, operational and financial parameters for determination of tariff, for grid connected MW scale solar PV plants are discussed below:

**i) Life of the Plant**:

The Commission, in its earlier Orders had considered 25 years as the useful life of the plant, for the purpose of determination of tariff. Since there are no new inputs or developments to modify the said period, the Commission continues to adopt the useful life of the Solar PV plants at 25 years, from the date of Commissioning.

**ii) Term and Tariff design:**

The Commission, in its earlier Orders has adopted the levelized tariff for a period of 25 years, in order to ensure certainty of revenue streams to the investors.

The Commission is of the view that, the investments made in solar projects should be allowed to be recovered through tariff over a reasonable period of time. Hence, the debt recovery period is considered at 12 years. In case the tariff period is fixed between 10 to 15 years, with the life of the plant being 25 years, the benefits of the investments made, would not be completely secured and realised. Further, reasonable returns for any investment needs to be allowed during the life of the plant. **Hence, the Commission decides to retain the levelized tariff for a period of 25 years.**

**iii) Capacity Utilisation factor:**

The Commission has been considering capacity utilisation factor of 19% for solar PV plants. During the public hearing a few stakeholders have suggested that, based on the solar irradiation profile across the State, different CUFs could be adopted for tariff determination.

The Commission notes that the CUF for a particular location would vary based on the irradiation profile and other parameters. The issue before the Commission is whether different CUFs have to be assigned for the tariff determination now. The projects that are coming up in the State and those which are already commissioned are based on the initial studies of specific locations and their economic viability. In case a higher CUF is achieved, the benefit of higher generation is available to the consumers of the State and so also higher revenue would be available to the investor. Further, generally the procuring ESCOM and the generator negotiate the terms of the PPA so that neither of them get any undue benefit of any abnormally higher or lower CUF. It is also to be noted that the Commission is determining the tariff on generic basis and not on specific location basis. Hence, the Commission decides to adopt a common CUF for the entire State.

As per the data published on the website of MNRE, the capacity utilization factor for solar PV plants considered by CERC and most of the SERCs in the country is 19%.

**The Commission therefore decides to retain the CUF at 19% for Solar PV plants.**

**iv) Degradation Factor:**

The Commission in its earlier Order had considered reduction of 0.5% of net generation as annual degradation from the fifth year onwards. As there are no new inputs provided during the consultation process, **the Commission decides to continue with allowing reduction of 0.5% of net generation as annual degradation from the fifth year onwards.**

**v) Capital Cost:**

The Commission, in its Tariff Order dated 30th July, 2015, had considered the capital cost of Rs.600 lakhs per MW for the purpose of determination of tariff for megawatt scale solar PV power plants. The CERC in its Order date 23rd March, 2016 has determined the benchmark capital cost norms for solar photovoltaic projects for 2016-17 at Rs.530.02 lakhs per MW as against Rs.605.85 lakhs per MW determined for 2015-16. Considering these benchmark norms, the Commission, in its Discussion paper dated 9th February, 2017 had proposed to adopt Rs.463.76 lakhs per MW as capital cost for 2017-18.

KREDL, CESC and HESCOM have concurred with the proposal of the Commission. One of the stakeholders has observed that the tariff determination should be on more scientific methodology for each identified land eligible for solar projects in KREDL's tendering process as the irradiation varies from place to place.

Greenko Energies Private Ltd, have opined that the linear cost reduction in Solar PV benchmark capital cost is not reasonable as the cost reduction is not steep as compared to earlier period. They have requested to consider capital cost at 80-85% of the existing capital cost.

**Commission's Decision:**

The Commission in its Tariff Order dated 30th July, 2015 had considered capital cost of Rs.6.00 Crores per MW for solar PV plants. The CERC in its Order dated 23rd March, 2016, in the matter of determination of benchmark capital cost norm for Solar PV power projects, has determined capital cost of Rs.530.02 lakhs per MW for Solar PV Power Projects applicable during FY 17.

The CERC in the above Order, has considered the average module cost of 0.48 US$/Wp for determination of benchmark capital cost for FY 2016-17 and considering an average of exchange rate of Rs.66.59/US$ of past six months, CERC has arrived at module cost of Rs.319.62 Lakh/MW for FY17. Further, the CERC in the above mentioned Order has considered an amount of Rs.8.77 lakhs / MW towards compensation of module degradation. Thus the total cost of module works out to Rs.328.39 lakhs per MW for FY17.

The breakup of capital cost is as under:

**Break-up for capital cost considered by CERC**

| Sl. No. | Particulars | Capital cost Norm for Solar PV project (Rs. Lakhs/MW) |
|---|---|---|
| 1 | PV Modules (@ $0.48/W and exchange rate of Rs. 66.59/ US $) | 328.39 |
| 2 | Land Cost | 25.00 |
| 3 | Civil and General Works | 35.00 |
| 4 | Mounting Structures | 35.00 |
| 5 | Power Conditioning Unit | 35.00 |
| 6 | Cables and Transformers | 44.00 |
| 7 | Preliminary and Pre-operative expenses IDC etc. | 27.63 |
| **8** | **Total Capital Cost** | **530.02** |

As per the PV Insight Report dated 22$^{nd}$ March, 2017, the following are the module prices:

| Item | High USD / Watt | Low USD / Watt | Average USD / Watt |
|---|---|---|---|
| Silicon Solar Module | 0.41 | 0.30 | 0.343 |
| Thin Film Solar Module | 0.42 | 0.30 | 0.355 |

The Commission notes that the cost of modules has come down from 0.48 USD/Wp obtained during March, 2016 to 0.35USD/MWp in March, 2017. Considering the average cost at 0.35 USD/Wp and an exchange rate of Rs.67.344 per USD (average of six months i.e. from 22$^{nd}$ September, 2016 to 22$^{nd}$ March, 2017), the cost of solar PV modules works out to Rs.234.89 Lakhs per MW for FY18. The Commission also notes that the CERC has not proposed to specify any normative cost of solar PV plants for FY18.

With the above cost of solar PV modules and considering the other components of the capital cost as determined by the CERC and escalated at 5% for FY18 except land cost, the capital cost for Solar PV plants will be as follows:

**Break-up for capital cost considered by KERC**

| Particulars | FY18 |
|---|---|
| Average Module cost-USD/Watt peak | 0.35 |
| 6 Months average value of USD in Rs. as per RBI (01.01.2015 to 01.07.2015) | 67.3024 |
| Cost of Solar Module in Rs./Watt | 23.488 |
| Cost of Solar Module in Rs. lakhs /MW | 234.89 |
| Land Cost @ Rs.5.00 Lakhs per acre (5 acres per MW) | 25.00 |
| Civil and General Works in Rs. Lakhs | 36.75 |
| Mounting Structure in Rs. Lakhs | 36.75 |
| Power Conditioning Unit in Rs. Lakhs | 31.50 |
| Evacuation Lines & Equipments in Rs. Lakhs | 46.20 |
| Preliminary and preoperative expenses IDC etc., in Rs. Lakhs | 28.91 |
| **Total Capital Cost in Rs Lakhs/MW** | **440.00** |

In respect of cost of other items, the Commission has considered an inflation factor of 5% per annum for estimating the capital cost for FY18 based on the benchmark cost fixed by the CERC for FY17.

**Accordingly, the Commission decides to consider capital cost of Rs.440.00 Lakhs per MW for the Solar PV plants which includes evacuation cost upto interconnection point for FY18.**

**vi) Debt-Equity Ratio**

Based on the Tariff Policy and the Industry norm, **the Commission decides to continue with the same debt equity ratio of 70:30 in the present tariff determination process.**

**vii) Operation & Maintenance Cost:**

The operation and maintenance cost consists of employee cost, administrative and general expenses and Repairs & Maintenance expenses. The Commission in its Order dated 30th July, 2015 had considered O & M expenses of Rs.13.00 lakhs / MW for solar PV plants with an annual escalation of 5.72%.

The Commission is of the view that reasonable O & M expenses are to be allowed. CERC in its Notification dated 30.03.2016 had considered O&M

expenses of Rs.7.00 Lakhs per MW for FY17. Considering the annual escalation of 5.72%, the O&M expenses for FY18 will be Rs.7.40 lakhs per MW. Based on the capital cost of Rs.440 lakhs, the O&M expenses of Rs.7.40 Lakhs will be 1.68% of the capital cost.

**Therefore, the Commission decides to allow O & M expenses of Rs.7.40 lakhs / MW for solar PV plants for FY18 with an annual escalation of 5.72% during the life of the plant.**

**viii) Auxiliary consumption:**

The Commission in its Order dated 30th July, 2015 had considered auxiliary consumption of 0.25% of the gross generation for solar photovoltaic plants.

The Commission notes that a few of the SERCs like MPERC & GERC have also allowed auxiliary consumption of 0.25% of the gross generation for Solar PV Plants. The CERC in its draft terms and conditions for determination of tariff for RE Sources of power generation for FY18 has proposed to consider auxiliary consumption of 0.25% of the gross generation for Solar PV Plants.

Further, the Commission notes that there are no new inputs to review its current stand on this issue and hence **decides to continue with auxiliary consumption of 0.25% for solar photovoltaic plants.**

**ix) Interest and Tenure of Debt:**

The Commission in its Order dated 30th July, 2015 had considered the 12.5% as interest on loan and repayment tenure of 12 years for the purpose of determination of tariff.
The commercial banks and financial institutions are now charging interest on the basis of Marginal Cost of fund based Lending Rates (MCLR). These rates are comparatively lower than the base rates considered earlier. Further, in view of the changing economic scenario, it is pertinent to note that there is considerable reduction in the MCLR and also downward trend is evident in the

interest rates. Hence, in such a situation, the Commission is of the view that, the investors can avail Capital loans at competitive interest rates which would be less than the rates considered earlier. Considering the present MCLR, the risk of investments and the credit rating of investors in general, **the Commission decides to allow an interest rate of 11.00% for capital loans for FY18.**

**x) Working Capital and Interest on working capital:**

The Commission in its tariff Order dated 30th July, 2015 had considered two months receivables as working capital and allow 13.25% as interest on the working capital. The Commission notes that payment security mechanism to generators is available in the form of Letter of Credit (LC) for recovering their monthly claims if not paid on time. The payment for the energy generated in a month by the generator is thus effectively made in the subsequent month by the distribution licensee. Hence, **the Commission decides to continue to allow two months' receivables as working capital.**

As regards the interest on working capital, as discussed earlier, the Commission notes that the prevailing interest rates are based on MCLR. **Hence, the Commission decides to allow 12.00% as interest on the working capital for FY18.**

**xi) Depreciation:**

The Commission has allowed the depreciation of 5.83% for the first 12 years which is adequate to sustain repayment of debt. **The Commission decides to continue with allowing depreciation at 5.83% for the first 12 years and 1.54% for the remaining 13 years on the capital cost of the plant excluding land cost**.

**xii) Return on Equity:**

The Commission, in its Tariff Orders in respect of other renewable sources of energy, has allowed RoE of 16% and the actual tax component as a pass through. **The Commission decides to continue to allow RoE OF 16% for solar PV plants for FY18.**

Further, any tax paid on the RoE is allowed as a pass through, limited to the amount of equity considered in this Order. The tax paid shall be claimed separately from the distribution licensees, duly furnishing proof of payment of such tax.

**xiii) Discount Factor:**

The Commission notes that, the rupee value has to be reflected in the computation of tariff for fair treatment of investments. The normative financing of capital cost is in the debt equity ratio of 70:30 respectively. As in the previous Orders, it is considered that adoption of the weighted average cost of the capital (WACC) approach is appropriate for determining the discount factor. Since the Commission has allowed the actual tax paid by the generator as a pass through annually, limited to the amount of equity considered in the Order, the computation of discount factor does not include the tax component. **Hence, considering 70% of the capital cost at 11% interest and 30% of equity at 16% of RoE, the Commission decides to allow discount factor of 12.50%.**

**xiv) Other issues:**

**(a) Sharing of Clean Development Mechanism (CDM) benefits-**

The Commission decides to continue with the following mechanism of sharing of the CDM benefits between the generating company and the beneficiaries as follows:

i. 100% of gross proceeds on account of CDM benefit are to be retained by the project developer in the first year, after the date of commercial operation of the generating station,

ii. In the second year, the share of distribution licensees shall be 10%, which shall be progressively increased by 10% every year till it reaches 50% and thereafter, the proceeds shall be shared in equal proportion by the generating companies and the beneficiaries.

**(b) Grid Connectivity:**

The Commission decides that, the STU shall arrange necessary facilities to evacuate power from the interconnection point. Further, STU/ESCOMs shall not collect any network augmentation charges towards system augmentation beyond the interconnection point. The developer shall be responsible for providing evacuation facility upto the interconnection point as defined in the PPA.

The grid connectivity shall be arranged by the distribution licensee in accordance with the prevailing CEA (Technical Standards for Connectivity to the Grid) Regulations 2007, CEA (Technical Standards for Connectivity of the Distributed Generation Resources) Regulations 2012 and any other related Regulations to be notified by the CEA and the KERC Grid Code as amended from time to time.

**(c) Applicability of Merit Order dispatch:**

All grid connected solar power plants shall be considered as 'Must Run' and shall not be subjected to Merit Order Dispatch principles.

**(d) Applicability of Wheeling and Banking Charges and Cross Subsidy Surcharge:**

A stakeholder has sought clarification as to, whether the exemption allowed in Wheeling, Banking and Cross Subsidy surcharge would continue with the new tariff Order.

The Commission hereby clarifies that the tariff Order is to determine the applicable tariff for Solar PV plants coming in the State during FY18 and the Wheeling, Banking and Cross Subsidy surcharge shall remain applicable as per Commission's Order dated 18th August, 2014.

**(e) Other Comments on Tariff and miscellaneous Issues:**

Sri William Joseph, has requested to allow solar power plants on barren land and no conversion of agricultural lands be allowed.

Sri. Rajashekhar S Nadagouda, has requested to increase the existing tariff of Rs.6.51 per unit for Solar PV plants of capacity less than 10MW.
Sri.S.K Basu Mallik, suggested that tariff should be determined for megawatt scale solar PV plants with battery storage facilities so that such plants would be able to contribute to peak demands of the utilities.

The Commission takes note of the above suggestions. It is observed that the investments made in solar power generation are mainly by using barren land. The choice of using the land for agriculture or otherwise is made by individuals. Also, this issue is not in the scope of present tariff determination process. Hence, at present, the Commission has not dealt on the issue raised by the stakeholder.

As regards, the suggestion on increasing the tariff for plants with capacity of less than 10MW, the Commission is of the view that tariff is determined for Solar PV plants duly considering the cost prevailing per MW irrespective of the size of the plant. There may be advantages of the economies of scale, but when the tariff is determined on cost per MW basis, there is no justification for increasing the tariff with reference to a specific capacity.

On the issue of tariff determination for megawatt scale solar PV plants with battery storage facilities for enabling such plants to contribute to peak demands of the utilities, the Commission is of the view that presently the cost of battery backed solar plants are substantial and rates would be prohibitive for purchase by utilities, Such plants could be feasible for individual requirements than being grid connected. The Commission is of the view that in future such proposal if competitive with other sources could be considered.

## 2. Abstract of cost parameters approved by the Commission:

Based on the above decisions of the Commission, the following is the abstract of the parameters considered for determination of tariff:

| Particulars | Solar PV |
|---|---|
| Capital Cost/MW- Rs. Lakhs | 440 |
| Debt: Equity Ratio | 70:30 |
| Debt-Rs. Lakhs/MW | 308 |
| Equity- Rs. Lakhs/MW | 132 |
| Debt Repayment Tenure in Yrs. | 12 |
| Interest charges on Debt-% | 11% |
| Capacity Utilisation Factor (CUF) | 19% |
| Degradation Factor | 0.5% of net generation from 5th year onwards |
| Return on Equity-% | 16% |
| Discount Factor -% | 12.50% |
| Auxiliary consumption-% | 0.25% |
| O & M expenses in Rs. Lakhs per MW | 7.50 |
| O & M Escalation p.a. | 5.72% |
| Working Capital | 2 months receivables |
| Interest on Working Capital-% | 12% |
| Depreciation for first 12 Years | 5.83% |
| Depreciation for next 13 Years | 1.54% |

## 3. Applicability of the Order:

On the proposed curtailment of control period and tariff, M/s Azure Power, has suggested that the control period and tariff be retained as per the existing Order. A few other stakeholders have made oral submissions that any revised tariff should not be made applicable to projects under execution and to be commissioned as per the already approved PPAs.

The Commission, having considered the issue, in modification of its Order dated 30th July, 2015, decides that the norms and tariff determined in this Order shall be applicable to all the new grid connected MW scale solar PV Plants entering into Power Purchase Agreement (PPA) on or after 1st April, 2017 but before 1st April, 2018 and also those which are commissioned during the period from 1st April, 2017 to 31st March, 2018 for which PPAs have not been entered into, prior to 1st April, 2017.

In respect of the projects that are commissioned during the period from 1st April, 2017 to 31st March, 2018 for which PPAs have been entered into and submitted and received in the Commissions' Office on or before 31st March, 2017 for approval, the tariff as per the said agreement shall be applicable.

However, the tariff in respect of any such project which is commissioned beyond the specified Commercial operation date but commissioned between 1st April, 2017 and 31st March, 2018 shall be as determined in this Order.

The tariff determined in this Order in respect of megawatt scale Solar PV plants shall be applicable for the term of the PPAs entered into in respect of projects covered by this Order.

Further, the approved tariff in respect of Solar thermal plants would continue as per the Commission's Order dated 30th July, 2015 and Solar Rooftop PV plants would continue as per the Commission's Order dated 2nd May, 2016, till 31st March, 2018.

**4. Tariff for grid connected Solar PV for FY18:**

**i. On the basis of the approved parameters, in modification of its earlier Order dated 30th July, 2015, the Commission hereby determines the tariff of Rs.4.36 per unit for all new grid connected MW scale solar PV Plants entering into Power Purchase Agreement (PPA) on or after 1st April, 2017 but before 1st April, 2018.**

**ii. This tariff determined shall also be applicable to those grid connected megawatt scale Solar PV Plants for which PPAs were entered into before 1st April,2017 but are not commissioned within the specified commercial operation date (COD) and achieve COD during the period from 1st April, 2017 to 31st March, 2018.**

**This Order is signed and issued by Karnataka Electricity Regulatory Commission on this 12th day of April, 2017.**

| Sd/- | Sd/- | Sd/- |
|---|---|---|
| **M.K.Shankaralinge Gowda** | **H.D.Arun Kumar** | **D.B.Manival Raju** |
| **Chairman** | **Member** | **Member** |

**Annexure**

## LIST OF STAKEHOLDERS WHO HAVE SUBMITTED COMMENTS / SUGGESTIONS ON THE DISCUSSION PAPER DATED 9TH FEBRUARY, 2017 FOR REVISION OF TARIFF FOR SOLAR PV POWER PLANTS

| Sl.No. | Name and Address |
|---|---|
| 1 | The Managing Director, KREDL, Bangalore |
| 2 | The General Manager(Commercial), CESC, Mysuru |
| 3 | The General Manager(Tech), HESCOM, Hubballi |
| 4 | Sri Rajashekar S Nadagouda, Plot No.5 & 6, Nadagouda Nivas, Shivayogi Nagar, Ashram Road, Vijayapur. |
| 5 | William Joseph, No.265/A, 4th Cross, 5th Main, Vijayanagapura, Mysuru |
| 6 | Azure Power India Pvt Ltd., No.8 Local Shopping Complex, Pushp Vihar, Madangir, New Delhi |
| 7 | Fortune Cotton and Agro Industries, Gorampur Village, Haveri |

## LIST OF STAKEHOLDERS WHO HAVE SUBMITTED ORAL COMMENTS / SUGGESTIONS DURING PUBLIC HEARING HELD ON 22nd MARCH, 2017

| |
|---|
| 1. C.Ravi |
| 2. Vishwanath B.R |
| 3. Sajjad Khan, Srinivasapura |
| 4. S.K.Basu Mallik, Tata Steel, Jamshedpur |
| 5. Saptak Ghosh, C-Step, Bangalore |
| 6. Representative of Greenko Energies Private Ltd., |