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STANDING COMMITTEE ON ENERGY

(2020-21)

(SEVENTEENTH LOK SABHA)

MINISTRY OF NEW AND RENEWABLE ENERGY

[Action Taken by the Government on the recommendations contained in the Twenty-Eighth Report (16th Lok Sabha) on National Solar Mission – An Appraisal]

EIGHTH REPORT

LOK SABHA SECRETARIAT
NEW DELHI

March, 2021/ Phalguna, 1942 (Saka)

EIGHT REPORT

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Presented to Lok Sabha on 19.03,2021

Laid in Rajya Sabha on 19.03.2021

LOK SABHA SECRETARIAT

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** Vacant vice Shri Javed Ali Khan, retired from Rajya Sabha on 25.11.2020.*
 # Vacant since constitution of the Committee w.e.f. 13.09.2020

INTRODUCTION

I, the Chairperson, Standing Committee on Energy having been authorized by the Committee to present the Report on their behalf, present this Eight Report on the action taken by the Government on the recommendations contained in Twenty-Eighth Report of the Standing Committee on Energy on 'National Solar Mission – An Appraisal'.

2. The Twenty-Eighth Report was presented to the Lok Sabha on 31st July, 2017 and was laid in Rajya Sabha on the same day. Replies of the Government to all the recommendations contained in the Report were received on 18th September, 2020

3. The Report was considered and adopted by the Committee at their sitting held on 18th March, 2021

4. An Analysis on the Action Taken by the Government on the recommendations contained in the Twenty-Eighth Report of the Committee is given at Appendix-II.

5. For facility of reference and convenience, the observations and recommendations of the Committee have been printed in bold letters in the body of the Report.

NEW DELHI
18th March, 2021
Phalguna 27, 1942 (Saka)

Rajiv Ranjan Singh *alias* Lalan Singh,
Chairperson,
Standing Committee on Energy

REPORT

CHAPTER - I

This Report of the Standing Committee on Energy deals with the action taken by the Government on the Observations/Recommendations contained in the Twenty Eight Report (Sixteenth Lok Sabha) on National Solar Mission – An Appraisal, which was presented to Lok Sabha on 31st July, 2017 and was laid on the Table of Rajya Sabha on the same day. The Report contained 20 Observations/Recommendations.

2. Action Taken Notes in respect of all the Observations/Recommendations contained in the Report have been received from the Government on 18th September, 2020. These have been categorized as follows:

(i) Observations/Recommendations which have been accepted by the Government:

Serial Nos.1, 2, 3, 4, 5, 6, 7, 8, 9, 11, 13,14,15,16,17,18,19 and 20

Total -18
Chapter-II

(ii) Observation/Recommendation which the Committee do not desire to pursue in view of the Government's reply:

Serial No. 12. Total - 01
Chapter-III

(iii) Observation/Recommendation in respect of which the reply of the Government has not been accepted by the Committee and which require reiteration:

Serial No. 10 Total–01
Chapter-IV

(iv) Observation/Recommendation in respect of which the final reply of the Government is still awaited:

Nil Total - 00
Chapter-V

3. The Committee observe that the 28th Report (16th Lok Sabha) on 'National Solar Mission-An Appraisal' was presented to Lok Sabha on 31st July, 2017 and was laid on the Table of Rajya Sabha on the same day and the Ministry was required to submit the action taken reply on the recommendations/observations contained in the Report within a period of three months i.e. by 30th October, 2017. The Committee, however, observe that the Ministry has submitted the requisite

action taken reply on 18th September, 2020, after a long delay of 3 years. While deploring the long delay on the part of the Ministry in submission of action taken replies, the Committee desire the Ministry (i) to enquire into the reasons for such inordinate delay in this case with a view to fixation of responsibility on the concerned and furnish the details of the action taken to the Committee (ii) to inform the Committee as to what steps have been taken by the Ministry to avoid the recurrence of such delays in future ; and (iii) to issue instructions/directives to all concerned to be extra cautious in adherence to the time-line prescribed for submission of replies to the Committee in future.

The Committee further desire that the Action Taken Statement on the Observations/Comments contained in Chapter-I of this Report be furnished to the Committee within three months of the presentation of the Report.

4. The Committee will now deal with action-taken by the Government on some of their recommendations that require reiteration or merit comments.

.(Recommendation Sl. No.9)

5. The Committee had recommended :

> "The Committee note that out of the 100 GW Solar Power, 40 GW is to be achieved from grid connected Solar Rooftops in residential, social, institutionaland Government sectors in the country. The Ministry has submitted that the capital subsidy of 30% is available for residential, institutional (hospitals, educational institutions, etc.) and social sectors. For the Government Institutions/ Public Sector Undertakings (PSUs), achievement-linked incentives/ awards are being provided. There is no subsidy for commercial and industrial establishments in the private sector as they are eligible for other benefits such as accelerated depreciation, custom duty concessions, excise duty exemptions and tax holiday etc. The Committee also note that the Ministry has a budget of Rs. 5000 crore for Grid connected Solar Rooftop systems to be installed upto 2019-20. This will provide financial support/central financial assistance for installation of about 4200 MW Solar Rooftops in the country (2100 MW with Subsidy and 2100 MW without subsidy). Till now, the Ministry has sanctioned projects of cumulative capacity of 2032 MWp under the programme to various State Nodal Agencies (SNAs) and Public Sector Undertakings/Authorities (SECI, CEL, REIL, Railways, AAI, etc.). About 661 MW of RTS capacities have been installed including subsidized and non-subsidized projects as on 30.04.2017. The Committee are highly disappointed with the performance of the Ministry in this sector. The Committee find that Rooftop Systems are not remunerative for consumers due to high maintenance cost. The Committee feel that the Rooftop Solar target of 40

GW by 2022 is unrealistic and it is highly unlikely that this target will be achieved. The Committee are of the view that the Ministry should give this scheme a serious relook, otherwise, it will derail the target achievement of the National Solar Mission. The Committee, therefore, recommend that:

i) The target of 40 GW through Rooftop Solar Projects should be reconsidered.

ii) Public Awareness Programme should be conducted regularly to popularize the Grid connected Solar Rooftop Projects.

iii) The Ministry should undertake regular review meetings with the implementing agencies.

iv) The process of subsidy disbursement should be made simpler.

v) Single Window Clearance System should be adopted for approvals like connectivity, net-metering, electricity inspection, limitation in sanctioned load, etc.

vi) The Ministry should pursue all the States/UTs to make Rooftop Solar compulsory on new buildings by making changes in building byelaws.

vii) Steps should be taken to encourage research and innovation in Solar Rooftop Systems so as to make them attractive and remunerative."

6. The Ministry of New and Renewable Energy, in its reply has stated :

"i. Phase-II of Grid Connected Rooftop Solar Programme has started after issuance of Scheme guidelines on 20th August 2019. Programme envisages a cumulative capacity of 40 GW by the year 2022 and will be implemented through Power Distributing Companies (DISCOMs). Out of this 4 GW will be in residential sector with Central Financial Assistance (CFA) of 20-40% and the balance will be without CFA. Implementing Agencies i.e. DISCOMs will get the incentive for achieving in the financial year above the baseline capacity as on 31st March of the previous year. No incentives for capacity addition up to 10% capacity. 5% incentives for addition beyond 10% and up to 15%; and 10% incentives for addition beyond 15%. Addition of capacity in commercial and Industrial sector will also be counted for the incentive purpose and incentive will be provided for the addition of first 18 GW only. As on 13th August 2020 total installation of 2144 MW has been reported on the SPIN portal of MNRE. However, market reports suggests that at present more than 5 GW of Rooftop solar has been installed in the country. As there was no incentive for the implementing agencies for reporting the non-subsidised installation on the SPIN Portal, however, with the provision of incentive for the DISCOMs, it is now expected that actual installation will be reported by the implementing agencies and we will be able to achieve the target of 40 GW by the year 2022.

ii. MNRE has requested all the State/UT Governments to give wide publicity to the Rooftop Solar Programme including the incentive available for installation of Rooftop Solar. MNRE has also provided the content for the Information, Education and Communication (IEC) material to the States/UTs, which can be used for publicity of the Rooftop solar. MNRE has also planned public awareness campaign through print and electronic media at central level.

iii. As recommended by the Standing Committee, the review meetings with the implementing agencies are held regularly at Secretary and Joint Secretary level. During the Power Ministers Conference also the issue of Rooftop Solar Programme is deliberated by the Hon'ble Minister with his counterparts.

iv. In Phase-I of Rooftop Solar (RTS) Programme, there was a provision of 30% advance of the project cost calculated at benchmark cost or the tendered cost whichever is lower. Balance 70% of the payment was to be released after completion of the project and submission of all the documents. As, implementing agencies were taking longer time in submission of documents, therefore, release of balance 70% of the subsidy amount was taking time. In Phase-II of RTS Programme, a provision of additional 30% advance after the implementing agency exhausted the initial 30% advance has been made. Further, it has been made mandatory for the implementing agencies to submit the documents within 30 days after the project completion timelines. Further, the residential consumers will have to pay only the balance of subsidy amount to the empanelled vendor. For example, if the total cost of the system is Rs.100/- with subsidy amount of Rs. 40/-. Now consumer will have to pay only Rs.60/- to the empanelled vendor and subsidy amount of Rs.40/- will be claimed by the vendor from the DISCOM (which has been made the implementing agency). Therefore, the consumer will not have to wait for the subsidy amount. With these provisions it is expected that process of subsidy disbursement will be faster.

v. Technical Assistance is being provided to the DISCOMs, the implementing agencies for creation of Single Window Clearance Portal. As one 13th August 2020, single Window clearance portals of 10 States are live and integrated with SPIN Portal of MNRE. It is expected that by 31stDecember 2020 all the implementing agencies will have this facility for their consumers.

vi. Ministry has written to all the State/UT Government to make the installation of Rooftop Solar mandatory in all the new buildings above a particular size. States of Uttar Pradesh, Haryana and UTs of Chandigarh and Delhi have notified regulations for mandatory installation of rooftop solar in new buildings above a particular size.

vii. Innovative ideas in installation, maintenance and business models by implementing agencies are shared with the other agencies from time to time."

7. With regard to the target vis-a-vis achievement of 40 GW solar power through rooftop solar projects, the Committee observe that as on 13th August 2020, total installation of 2144 MW (2.14 GW) has been reported on the SPIN portal of MNRE and according to market report, more than 5 GW of rooftop solar has been reportedly installed in the country. The Ministry submitted that they would be able to achieve the target of 40 GW solar power through rooftop solar projects by the year 2022. The Ministry has stated that all the State/UT Governments have been requested to give wide publicity of rooftop solar programme, regular review meetings are held with implementing agencies, provision for faster disbursement of subsidy has been introduced, Technical

Assistance is being provided to the DISCOMs and the implementing agencies for creation of Single Window Clearance Portal, all the State/UT Government have been asked to make the installation of rooftop solar mandatory in all the new buildings above a particular size. The Committee though appreciate the efforts made by the Ministry on their recommendations, yet the very slow performance made so far in this sector reinforces the Committee's apprehensive about the achievement of the target by the year 2022. The Committee feel that non achievement of target in this particular sector will have a cascading effect on the overall target of 100 GW solar power by 2022. The Committee would therefore like to re-emphasize that for achievement of the target of 40 GW solar power through rooftop solar projects in the specified time, a specific thrust needs to be given by the Ministry on this particular sector.

(Recommendation Sl. No.10)

8. The Committee had recommended:

"The Committee note that the Electricity Regulatory Commissions of all the 36 States/UTs have notified regulations/tariff orders for net metering/feed-in-tariff mechanism. But DISCOMs are reluctant to operationalize the Net-Metering Regulations as it may reduce their income from high-paying customers. The Committee also note that from the consumers point of view, availability of NetMeters, time taken for giving Net-Metering connections by DISCOMs, inspection by Chief Electrical Inspector (CEI), etc. are few of the concerns. The Committee are of the view that to give boost to Rooftop Solar Systems, operationalization of Net-Metering is of utmost importance. It reduces AT&C losses and need for large tracts of land. It even helps DISCOMs to avoid buying expensive peak power. The Committee, therefore, recommend that:

i) The concept of Cross-Subsidy should be reconsidered so that Net-Metering for all users will make more financial sense.

ii) Clear installation guidelines should be formulated by the Central and State Regulatory Authorities.

Iii) There should be proper training of DISCOM's staff on implementation of Net-Metering."

9. The Ministry of New and Renewable Energy in its reply has stated :

"i) All the Regulators have notified the metering regulations. Although Net metering is available for the residential sectors in all the States, however, in addition to Net Metering, gross metering and Net billing have also been prescribed by some State Regulators for commercial and Industrial Sectors. Ministry has regularly pursued with the State Government to approve the Net Metering/Gross Metering for the Rooftop Solar installer in a time bound manner. Ministry has also written to the State Governments and State Electricity

Regulators to fix the tariff under Gross Metering by considering the capital cost involved in installation of Rooftop Solar and a reasonable return on the capital cost so that the same is recovered in a reasonable time of 5-6 years. The issue of cross subsidy is a sensitive issue under the domain of State Governments; therefore, each State Government takes a view as per the recommendations of State Electricity Regulatory Commission as per local requirement.

ii) Ministry has written to all the State Governments to notify standard procedure for installation of rooftop solar and also shared a indicative operating procedure with timelines for each activities for installation of rooftop solar by the consumers.

iii) Technical Assistance is being provided to the DISCOMs, the implementing agencies by the multilateral agencies like World Bank, ADB, European Union and GIZ (German Agency) under bilateral agreement. These agencies under the guidance of MNRE provide technical assistance programme provide training to the DISCOMs Staff for Net metering is also covered in addition to other issues."

10. The Committee had recommended in their original report that the concept of cross-subsidy should be reconsidered so that Net-Metering for all users will make more financial sense. The Ministry in its reply has stated that the issue of cross subsidy is a sensitive issue under the domain of State Governments and that each State Government takes a view as per the recommendations of State Electricity Regulatory Commission as per local requirement. The Committee are well aware of the fact that the issue is in the domain of the State Governments. Nevertheless, the Committee feel that the Ministry of New and Renewable Energy being a nodal Ministry to look after all aspects relating to new and renewable energy could play significant role for the betterment and development of new and renewable energy sector with structured consultations with the State Governments. The Committee, therefore, would like to reiterate that the concept of Cross-Subsidy need to be reconsidered so that Net-Metering for all users will make more financial sense. Regarding recommendation for formulation of clear installation guidelines by the Central and State Regulatory Authorities, the Committee are informed that the Ministry has written to all the State Governments to notify standard procedure for installation of rooftop solar and also shared a indicative operating procedure with timelines for each activities for installation of rooftop solar by the consumers. The Committee would like to be apprised of the action taken by the State Governments in this regard. With regard to the training required to be given to DISCOM staff on the subject of

implementation of net-metering, the Committee observe from the reply that the Ministry has restricted their role only to the extent of giving guidance which, according to the Committee, indicate an indifferent and passive approach of the Ministry towards such an important issue. The Committee would therefore while reiterating their recommendation that there should be proper training of DISCOM's staff on the subject of implementation of Net-Metering, desire the Ministry to play and active and result oriented role on this issue.

(Recommendation Sl.No.17)

11. The Committee had recommended :

"The Committee have been informed that one of the challenges to meet the target of 100 GW by 2022 is delay in signing of PPA after finalization of tenders which is a consequence of lack of directions from parent Ministry, lengthy internal approval process, involvement of multiple Ministries, lack of prior experience of the Government Departments etc., and the possible fall outs of this situation are delay in project implementation, changes in scheme norms, change in cost/incentives, backing out of developers, revenue loss for entity etc. The Committee have taken a serious view of this situation as with this delay in signing of PPAs, the sanctity of the whole Mission will be affected and the Ministry will not be able to achieve its target within the stipulated time. The Committee, therefore, recommend that:

i) The Ministry should devise a single window system wherein lengthy internal approval process and involvement of multiple Ministries can be avoided.

ii) The Ministry should come up with model PPAs with the help of specialized agencies."

12. The Ministry in its Action-taken reply has stated :

"The suggestions of the Committee have been noted. Further, Ministry of New & Renewable Energy (MNRE) has prepared Standard Bidding Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected solar PV and Wind Power Projects, which provide for a detailed standardized framework for procuring solar/ wind power in a fair and transparent manner."

13. Keeping in view the delay in signing of Power purchase Agreements (PPAs) which was one of the main challenges in renewable energy project implementation, the Committee had recommended to devise a single window system wherein, lengthy internal approval process and involvement of multiple Ministries can be avoided and also to come up with model PPAs. The Ministry has informed that Standard Bidding Guidelines for Tariff Based Competitive

Bidding Process for Procurement of Power from Grid Connected solar PV and Wind Power Projects has been prepared. The Committee note the action taken in this regard and would like them to be apprised of the progress of the proposed Guidelines in this connection.

(Recommendation Sl.No.18)

14. The Committee had recommended :

"The Committee note that India has installed solar PV manufacturing capacity of round 3 GW for solar PV Cells and around 7 GW for solar PV modules, however, the actual production is 1 GW and 3 GW respectively. Also, solar PV power installed in the year 2016-17 was about 5.5 GW and the target for 2017-18 is around 10 GW. The Ministry has submitted that the installed manufacturing capacity of solar PV cells and modules is not capable of catering the annual demand of the country and China and China controlled Taiwan + SEA hold 85% of total global capacity for solar cell and module manufacturing. The Committee find that despite its low labour cost, Indian Manufacturers are not able to compete with Chinese Firms. The Committee also note that the Government of India provides incentives for solar manufacturing under Modified Special Incentive Package Scheme (M-SIPS) of the Ministry of Electronics and Information Technology (MeitY).M-SIPS provide a capital subsidy to promote large scale manufacturing in the Electronic System Design and Manufacturing (ESDM) sector which also includes Solar Photovoltaic units. The Committee are concerned about the lack of domestic Solar Manufacturing Capacity. The Committee are of the view that it is a necessity for India to support Domestic Solar Manufacturing as over-reliance on a single country puts Indian Solar Sector at a risk of disruption in supply chain. The Committee, therefore, recommend that:

i. The Ministry should urgently formulate a dedicated programme to establish India as a Solar Manufacturing Hub so as to provide policy support to the complete value chain.

ii. There should be excise duty exemption and Zero import duty on raw materials.

iii. The Ministry should work to provide Viability Gap Funding (VGF) and low interest rate loans to domestic manufacturers.

iv. There should be provision for establishment of manufacturing units inside the Solar Parks so that Manufacturers may benefit from the Infrastructure & ecosystem of the Solar Parks.

v. The Ministry should focus on quality and reliability of the Solar Cells/Modules."

15. The Ministry in its Action-taken reply has stated:

"To provide financial support as well as to reduce the financing cost for domestic solar PV manufacturing, Ministry of New & Renewable Energy (MNRE) is in the process of formulating "National Programme on Solar PV Manufacturing".This

would help in setting up of new Giga-scale solar PV manufacturing facilities in India.

As per notification No. 24/2005-Customs dated 1st March, 2005, of Department of Revenue, Ministry of Finance, all goods required for the manufacture of solar PV cells and modules, when imported into India, are exempt from the whole of the duty of customs leviable thereon, provided that the importer follows the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty for Manufacture of Excisable Goods) Rules, 1996.

As per Notification No. 50/2017-Customs dated 30th June, 2017, of Department of Revenue, Ministry of Finance, capital equipment required for the manufacture of solar PV cells and modules, when imported into India, are exempt from the whole of the duty of customs leviable thereon under First Schedule of Customs Tariff Act, 1975, provided they are included in the goods specified in List 19 of the said Notification, as mentioned in Sl. No. 426 of the Table included in the said notification, provided that the importer follows the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017.

The Ministry of New & Renewable Energy is facilitatingsetting up of renewable energy manufacturing hubs in the country, preferably at location near ports. Such renewable energy manufacturing hubs are expected to create a holistic environment for fully integrated manufacturing of renewable energy equipment in the country.

For quality and reliability assurance, MNRE is implementing the Quality Control Order on SPV Systems, Components and Devices (Compulsory Registration Scheme), which covers SPV modules, inverters and battery storage. These products are required to conform to specified Indian Standards. Products qualifying the standards tested in BIS recognized test labs are required to be registered by the respective manufacturers with BIS."

16. The Committee note that the Ministry of New & Renewable Energy is in the process of formulating 'National Programme on Solar PV Manufacturing' which according to the Ministry would help in setting up of new Giga-scale solar PV manufacturing facilities in India. The Committee are also informed that the Ministry is facilitating setting up of renewable energy manufacturing hubs in the country, preferably at location near ports, which are expected to create a holistic environment for fully integrated manufacturing of renewable energy equipment in the country. The Committee hope that the proposed programme would be implemented in letter and spirit so that the Indian manufacturers are able to compete with the international firms in the solar sector. The Committee would like to be apprised them of the progress regarding formulation of National Programme on Solar PV Manufacturing and setting up of renewable energy manufacturing hubs in the country.

CHAPTER II

RECOMMENDATIONS/ OBSERVATIONS WHICH HAVE BEEN ACCEPTED BY THE GOVERNMENT

(Recommendation Sl. No.1)

The Committee note that the Government has embarked upon an ambitious mission of renewable energy laying great emphasis on the natural resources like solar, wind, hydro etc. A target of 175 GW has been set to be achieved by 2022. Solar is the thrust area of the mission. As far as wind is concerned, it is already performing satisfactorily and steps have been taken to provide the desire fillip to this sector. Among the various renewable energies, wind has taken a lead and it is presumed that the target set for this sector will be achieved. However, the performance in other sectors of the renewable energy such as solar, Small Hydro, Biomass, Biogas, Bagasse, etc. is not so encouraging. The success of the mission solely and squarely hinges on the success of solar energy programmes. Any unfulfilling result of our efforts on this count will have a cascading effect. If we are determined for the success of the renewable energy mission, then there can be no letup in our consistent efforts, close monitoring and keen interest in attainment of the Solar Energy targets. Sectors like Small Hydro, Biomass, Bagasse, etc. are local in nature and can be achieved with somewhat lesser efforts as there is not so significant target under these heads of renewable energy. The Committee, therefore, recommend that keeping in view the importance of the mission and its potential to transform the lives of the rural India, wholehearted and concerted efforts should be made taking into account fiscal and financial targets, their time-bound achievements with appropriate mechanism to review the shortfall, if any, in the successful implementation of the programme.

REPLY OF THE GOVERNMENT

The suggestions of the Committee have been noted. Concerted efforts are being made in this regard in consultation with various stakeholders. As on 31st July, 2020, a total of 88.04 GW of renewable energy capacity has been installed which includes 37.94 GW from wind, 35.30 GW from solar, 10.09 GW from bio-power and 4.71 GW from small hydro power. Further, projects of capacity worth 43.39 GW are under various stages of implementation and capacity of 29.96 GW is under various stages of bidding.

Further, the solar energy growth has been rapid in the country. The solar power installation has multiplied almost 10 times in last five years (it was 3744 MW on 01.04.2015). Today the solar power installed capacity is 35.74 GW.

[Ministry of New & Renewable Energy
OM.No.372-12/8/2017-PU Dated: 18/09/2020]

(Recommendation Sl. No.2)

Grid Connected Solar Power

The Committee note that the total investment for commissioning of 100 GW Solar Power has been estimated to Rs. 5 Lakh Crore and most of the investment is done by private entities. The Government has been playing a facilitative role in land acquisition, loan at affordable rates, 100% FDI in RE sector through automatic route, etc. The Committee also note that the Ministry has not set any financial targets in this regard and all has been left to the private sector. The Committee are of the view that the Ministry should not act like a bystander as arrangement for such a huge investment cannot be left to the private sector alone. The Committee, therefore, recommend that the Ministry should play a more proactive role with respect to financial investment like providing access to loans at more favourable rate of interests, introducing Green Bonds through SECI, approaching international donors, arranging finances from Green Climate fund etc., so as to achieve the ambitious target of 100 GW of Solar Energy by 2022.

REPLY OF THE GOVERNMENT

Indian Renewable Energy Development Agency (IREDA), a public sector unit under the aegis of MNRE involved in the financing of RE projects has carried out following activities:

- IREDA has successfully financed more than 2600 renewable energy projects in the country with cumulative loan sanctions of Rs 85,600 Crores (loans disbursed more than Rs. 54,322 Crs) as on 31.3.2020, supporting green power capacity addition of more than 16,295 MW and acting as a trendsetter for other FIs and Banks.
- During the last 5-6 years, IREDA has implemented several initiatives / Business strategies, which have helped increase lending to the sector and also the overall Business growth of IREDA. Various innovative schemes introduced (Apart from regular project finance) in last 5 -6 years are as follows:

i. Loan assistance to manufacturers & suppliers.

ii. Regular “Top up Loan” Scheme

iii. Dedicated Policy for Financing of Transmission Projects:

iv. Short Term Loan Facility to Govt. Bodies/ Discoms/ Transco /State Owned Trading Companies

v. Securitization of Future GBI receivables in case of Grid Connected Wind & Solar Projects

vi. Introduction of Factoring Scheme for Purchasing Receivables of Solar Power Developers Payable by Eligible Entities (Central Govt. Entities/Govt. Owned Companies/State Entities)

- Further, IREDA is among the largest ‘Green Energy Financier’ in India & this has greatly supported the shaping of renewable energy sector in India. Thus, IREDA has been a focal point of attracting international finance in the Indian RE sector; many multilateral/bilateral lending agencies such as the World Bank, JICA, ADB, KFW, AFD & EIB prefer to route their funds through IREDA for supporting the Indian RE sector.

- India has been issuing green bonds for development of renewable energy project.
- As per Emerging Markets Green Bond Report, in 2019, India issued $3.2 billion worth of green bonds to provide access to scalable, long term, low cost debt capital from institutional investors.

[Ministry of New & Renewable Energy OM.No.372-12/8/2017-PU Dated: 18/09/2020]

(Recommendation Sl. No.3)

The Committee note that the potential of Solar Energy in cantonment and Military Stations and in Ordnance Factory Boards (OFBs) are approximately 5000 MW and 950 MW respectively. There is a target to install a capacity of 300 MW in various Establishments of Ministry of Defence i.e. Establishments of Army, Navy, Air Force, Ordnance Factory Board, Defence Laboratories and Defence PSUs etc. The Cabinet has approved the Scheme in its meeting held on 10th December, 2014. The Ministry has issued Administrative Approval for the same on 7th January, 2015. The Committee are informed that to keep the provisions of scheme WTO compliant, the capacity under EPC mode of the scheme will use made in India solar cells and modules in the solar PV power plants and the projects under developer mode will be free to procure solar cells/modules under open category (indigenous or imported). The Committee also note that, as on date, 357.5 MW has been allocated under this scheme but only 7 MW has been commissioned so far. The Committee are not satisfied with this performance. Keeping in view that more than two years have passed since issuance of Administrative approval, such dismal performance is not justified. The Committee, therefore, strongly recommend that:—

i. Time-bound achievement of targets should be ensured.

ii. In view of the estimated potential of about 6000 MW and large tracts of land and vacant roof-tops available with various establishments of the Ministry of Defence, the Ministry should set a target for setting up 5000 MW of Grid connected Solar PV Power Projects by the Defence Establishments.

iii. The full capacity of 5000 MW should be tendered through EPC Mode so that only Made In India Solar Cells and Modules may be used.

REPLY OF THE GOVERNMENT

i. The suggestion has been noted and all efforts are being made to achieve the targets. A scheme for defence establishment was launched on 07.01.2015 and was operational up to 31.03.2019. Further, the Ministry had requested Ministry of Defence for information regarding power requirement of advance Army bases towards de-dieselisation of these.

ii. As mentioned in point no. (i) above, under the Defence scheme, 241.5 MW were allocated to different Defence Organisations. Out of this allocation, 125.5 MW has been allocated to the Department of Defence (DoD) and 75.5 MW allocated to BEL & balance capacities of 40.5 MW allocated to different Defence organisations like MIDHANI, HAL, BDL etc. Further, out of 241.5 MW, 138.5 MW has already been commissioned and balance capacities are expected to be commissioned by March 2021. DoD capacities

being implemented by Military Engineering Services (MES), are spread across various locations in the country and smaller capacity at a single location ranging from 1 MW to 2 MW. MES is facing difficulties in the implementation of these projects from State Govts. This Ministry has taken up with the State Govts to resolve the issues faced by MES.

iii. The provision of Domestic Content Requirement (DCR) has been made to promote Made in India concept through Rooftop, CPSU and PM-KUMSUM schemes.

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(Recommendation Sl. No.4)

The Committee are informed that the scheme for development of Solar Parks and Ultra Mega Solar Power Projects envisages supporting the States in setting up solar parks at various locations in the country with a view to create required infrastructure for setting up of Solar Power Projects. It is also submitted that the solar parks will provide suitable developed land with all clearances, transmission system, water access, road connectivity, communication network, etc. This scheme will facilitate and speed up installation of grid connected solar power projects for electricity generation on a large scale. The Committee note that, so far, 34 Solar Parks of aggregate capacity of 20,000 MW have been approved in 21 States. However, the Committee find that, till date, the Ministry has identified land at various places for 33 Solar Parks and land for one is yet to be finalized. So, it means that much of the infrastructure in these Solar Parks will be developed parallel to the construction of Solar Project inside these Parks which is not going to help project developers. The Committee also note that, as of now, Solar Projects of only 1516 MW capacity, out of 20,000 MW capacity, have been commissioned inside Solar Parks. The Committee, therefore, recommend that all necessary actions should be taken to expedite the development of Solar Parks. The Ministry should conduct regular review meetings with the State Governments and Solar Park Developers to ensure the time-bound development of Solar Parks, so that the Solar Project Developers may get the benefit of the established infrastructure.

REPLY OF THE GOVERNMENT

MNRE is making concerted efforts in this regard by holding review meetings with various stakeholders from time to time. As on 31st July,2020, 40 solar parks of aggregate capacity 22,614 MW have been approved to 17 States. These solar parks are at different stages of development.

Out of these solar parks, the park infrastructure of Kurnool solar park (1000 MW) & Ananthapuramu-II solar park (500 MW) in Andhra Pradesh, Rewa solar park (750 MW) in Madhya Pradesh, Bhadla-II solar park (680 MW), Bhadla-III solar park (1000 MW) and Bhadla-IV solar park (500 MW) in Rajasthan are fully developed. In addition, the park infrastructure for Pavagada Solar Park (2000 MW) in Karnataka, Mandsaur solar park (250 MW) in Madhya Pradesh, Ananthapurumu-I solar park (900 MW out of 1500 MW) and Kadapa solar park (250 MW out of 1000 MW) in Andhra Pradesh, Kasaragod solar park (50 MW out of 105 MW) in Kerala, and UP solar park (165 MW out of 440 MW) are partially developed. Thereby, so far, aggregate capacity of 7945 MW of solar projects has been commissioned in 12 solar parks.

Further, now under the Solar Park Scheme, setting up of Ultra Mega Renewable Energy Parks (UMREPPs) has been planned in various states of the country including Border areas with an objective to provide land and transmission infrastructure upfront to the project developer on plug and play model. Various CPSUs and State Governments have expressed interest to set up UMREPPs. CPSUs and State agencies may form a Joint Venture or independently develop Solar Parks and can act as Solar Power Park Developer (SPPD). To incentivize States, a provision has been made to give 5 paisa per unit, as a facilitation charge. The implementing agencies for UMREPPs of around 25 GW capacities, either exists or the MoUs for formation of JVCs have been signed.

Therefore, all the possible efforts are being made by the Ministry to complete the targets under the Solar Park Scheme in the stipulated timelines.

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(Recommendation Sl. No.5)

The Committee note that the Ministry provides Central Financial Assistance (CFA) up to Rs. 25 lakh per solar park for preparation of Detailed Project Report (DPR) and upto Rs. 20.00 lakh per MW or 30% of the project cost, including Grid-connectivity cost, whichever is lower on achieving the milestones prescribed in the scheme. The approved grant is released by Solar Energy Corporation of India Ltd. (SECI) as per milestones. The Committee also note that the total fund required to provide CFA is estimated at Rs. 4050 crore. The Committee find that, during the last three years (2014-15 to 2016-17), the SECI should have disbursed Rs. 1650 crore as CFA. But, CFA actually released during the said period is only Rs. 906.12 crore i.e. about 45% short of the target. The Committee, therefore, recommend that the reasons for low disbursement of funds should be identified and remedial measures should be taken in this regard.

REPLY OF THE GOVERNMENT

The release of Central Financial Assistance (CFA) is linked with the achievement of different milestones e.g. acquisition of land, financial closure, award of work of pooling station etc. under the Solar Park Scheme. The CFA cannot be released until the milestones are achieved by the SPPDs. The acquisition of land is very critical in the process of development of solar parks which generally delays the development process. Further, delay in signing of PPA/ adoption of tariff for projects inside the solar park also delays the overall development of the solar park. These in turn slows down the disbursement of CFA to the SPPDs. Despite constraints being faced, Ministry is making concerted efforts through various review meetings, video conferences and written communications to the State Government and other stakeholders to expedite acquisition of land for development of solar parks and to sort out other constraints in implementation of the scheme.

With regard to disbursement of the funds under the Scheme, based on the milestones achieved by the various SPPDs, the CFA of around Rs. 1566.67 crores has been disbursed to different SPPDs and Transmission Utilities for infrastructure development of the solar parks.

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(Recommendation Sl. No.6)

The Committee have been informed that SECI has implemented Viability Gap Funding (VGF) Schemes of 750 MW, 2000 MW and 5000 MW each for setting up large scale ground-mounted solar PV projects. Under this scheme, developers would be paid tariff of Rs. 4.43 per kWh or the discounted tariff discovered through e-reverse auctioning, for 25 years by entering into a PPA with SECI. Power from these projects would be sold to various DISCOMs/Bulk consumers/State utilities by SECI at Rs. 4.50 per kWh or discounted tariff discovered (including trading margin of 7 paisa per unit). The Committee find that the results of this scheme are not so encouraging. Under first batch of VGF Scheme of 750 MW, only 680 MW could be commissioned. Under the second batch of 2000 MW, only PPAs have been signed for 2295 MW and commissioning status is not known. Under the third batch of 5000 MW, 2500 MW should have been commissioned till 2016-17, but SECI has only signed PPAs for 970 MW till date. The Committee are of the view that VGF Scheme has outlived its utility. The Scheme had relevance when the quoted Solar tariff was above Rs. 4.43 per Kwh. Now, in view of the dwindling Solar tariff, the Committee do not find any rationale behind continuation of this Scheme. Moreover, the Committee are not able to understand the sanctioning of VGF to CPSUs like ONGC, Coal India Ltd., GAIL (India) Ltd., NTPC, BHEL, NHPC Ltd., etc. The Committee, therefore, recommend that the Ministry should reconsider the Viability Gap Funding Scheme in this sector.

REPLY OF THE GOVERNMENT

i. The current status of the projects under the VGF schemes are as follows:

Sl. No.	Scheme Name	Commissioned Capacity (MW)	Capacity (MW) not commissioned with reasons
1	750 MW	680 MW	70 MW - Noncompliance by SPDs therefore PPA terminated
2	2000 MW	2155 MW	-
3	5000 MW	2670 MW	As mentioned above, after the tariff came down, projects under VGF scheme were not required.

As the tariffs have come down, the VGF is not required and the Scheme has been discontinued.

Under MNRE's CPSU Scheme Phase-I, VGF has been given to CPSUs like NTPC, BHEL, NHPC, ONGC, GAIL, etc. for compensating the extra cost incurred by them in deploying domestically manufactured solar PV modules (and in some cases domestically manufactured solar PV cells also) as per domestic content requirements under CPSU Scheme Phase-I.

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(Recommendation Sl. No.7)

The Committee are informed that there is a scheme for setting up of 1000 MW Grid connected Solar PV Power Projects by 15 CPSUs/Government Organizations by 2018. The Committee note that the Ministry has allocated 1037.26 MW capacity out of which 669 MW has been commissioned till date. Performance of the CPSUs like Coal India Ltd., NHPC Ltd., ONGC, GAIL (India) Ltd., THDC India Ltd., NVVN Ltd. etc. is disappointing. The Committee are concerned to note that even the Government Organizations are not able to achieve their targets. The Committee, therefore, recommend that the Ministry should take corrective steps so that 1037.26 MW capacity under this scheme gets commissioned in time.

REPLY OF THE GOVERNMENT

Under the CPSU Scheme Phase-I there was a requirement of Domestic Content Requirement (DCR). While MNRE had sanctioned the entire Scheme capacity, a view emerged in consultation with Department of Commerce that the structure of the Scheme may not be fully WTO compliant and that the projects which were yet to be started may be removed from the Scheme. Accordingly, the capacity sanctioned under the Scheme (CPSU Scheme Phase-I) was revised to 882 MW. The entire capacity of 882 MW sanctioned under the Scheme, has been commissioned.

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(Recommendation Sl. No.8)

The Committee note that there is a scheme for installation of 15000 MW Grid connected Solar PV Power Plants through NTPC Ltd. Under tranche-I (2014-15 to 2016-17) of this scheme, 3000 MW of Solar Power is to be bundled with unallocated thermal power in the ratio of 2:1 for which the required 1500 MW unallocated thermal power has been made available by the Ministry of Power and NTPC Ltd./NVVN will sell the Bundled Power to willing State Utilities under 25 years Power Sale Agreements (PSAs), at Weighted Average Tariff of the Solar and Thermal components plus Trading Margin of seven paisa per kWh. The Committee find that only 1090 MW has been commissioned under this scheme till 31.03.2017 i.e. 64% short of the target. The Committee also find that the bundling of Solar Power with Thermal Power is to incentivize the Solar Power. However, in view of the dwindling Solar Tariff, the Committee feel that the Thermal Power is getting incentivized which is not the objective of the Bundling Scheme. The Committee, therefore, recommend that the Ministry should revisit the Bundling Scheme as this scheme has stopped yielding the desired results now.

REPLY OF THE GOVERNMENT

Govt. of India had launched the State Specific Bundling scheme for implementing 15000 MW of Grid-connected Solar PV Power Plants under National Solar Mission (NSM) from 2014-15 to 2018-19 in three tranches, with NTPC as the implementing agency:

- Tranche-I: 3000 MW: 2014-15 to 2016-17;
- Tranche-II: 5000 MW: 2015-16 to 2017-18;

• Tranche-III: 7000 MW: 2016-17 to 2018-19.

MNRE issued the Guidelines for selection of 3000 MW of Solar PV Capacity (i.e. identified quantum of Tranche-I) in March 2015. Under the scheme, it was envisaged that the then costlier solar power will be bundled with cheaper thermal power in the ratio of 2:1, so as to supply combined power at an affordable price.

The entire capacity of 3,000 MW Tranche-I is commissioned now. Now, as the Solar power tariff has fallen significantly, i.e., even less than the tariff of thermal power, it is not proposed to take up Tranche II and III.

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(Recommendation Sl. No.9)

The Committee note that out of the 100 GW Solar Power, 40 GW is to be achieved from grid connected Solar Rooftops in residential, social, institutional and Government sectors in the country. The Ministry has submitted that the capital subsidy of 30% is available for residential, institutional (hospitals, educational institutions, etc.) and social sectors. For the Government Institutions/ Public Sector Undertakings (PSUs), achievement-linked incentives/ awards are being provided. There is no subsidy for commercial and industrial establishments in the private sector as they are eligible for other benefits such as accelerated depreciation, custom duty concessions, excise duty exemptions and tax holiday etc. The Committee also note that the Ministry has a budget of Rs. 5000 crore for Grid connected Solar Rooftop systems to be installed upto 2019-20. This will provide financial support/central financial assistance for installation of about 4200 MW Solar Rooftops in the country (2100 MW with Subsidy and 2100 MW without subsidy). Till now, the Ministry has sanctioned projects of cumulative capacity of 2032 MWp under the programme to various State Nodal Agencies (SNAs) and Public Sector Undertakings/Authorities (SECI, CEL, REIL, Railways, AAI, etc.). About 661 MW of RTS capacities have been installed including subsidized and non-subsidized projects as on 30.04.2017. The Committee are highly disappointed with the performance of the Ministry in this sector. The Committee find that Rooftop Systems are not remunerative for consumers due to high maintenance cost. The Committee feel that the Rooftop Solar target of 40 GW by 2022 is unrealistic and it is highly unlikely that this target will be achieved. The Committee are of the view that the Ministry should give this scheme a serious relook, otherwise, it will derail the target achievement of the National Solar Mission. The Committee, therefore, recommend that:

i. The target of 40 GW through Rooftop Solar Projects should be reconsidered.

ii. Public Awareness Programme should be conducted regularly to popularize the Grid connected Solar Rooftop Projects.

iii. The Ministry should undertake regular review meetings with the implementing agencies.

iv. The process of subsidy disbursement should be made simpler.

v. Single Window Clearance System should be adopted for approvals like connectivity, net-metering, electricity inspection, limitation in sanctioned load, etc.

vi. The Ministry should pursue all the States/UTs to make Rooftop Solar compulsory on new buildings by making changes in building byelaws.

vii. Steps should be taken to encourage research and innovation in Solar Rooftop Systems so as to make them attractive and remunerative.

REPLY OF THE GOVERNMENT

i. Phase-II of Grid Connected Rooftop Solar Programme has started after issuance of Scheme guidelines on 20th August 2019. Programme envisages a cumulative capacity of 40 GW by the year 2022 and will be implemented through Power Distributing Companies (DISCOMs). Out of this 4 GW will be in residential sector with Central Financial Assistance (CFA) of 20-40% and the balance will be without CFA. Implementing Agencies i.e. DISCOMs will get the incentive for achieving in the financial year above the baseline capacity as on 31st March of the previous year. No incentives for capacity addition up to 10% capacity. 5% incentives for addition beyond 10% and up to 15%; and 10% incentives for addition beyond 15%. Addition of capacity in commercial and Industrial sector will also be counted for the incentive purpose and incentive will be provided for the addition of first 18 GW only. As on 13th August 2020 total installation of 2144 MW has been reported on the SPIN portal of MNRE. However, market reports suggests that at present more than 5 GW of Rooftop solar has been installed in the country. As there was no incentive for the implementing agencies for reporting the non-subsidised installation on the SPIN Portal, however, with the provision of incentive for the DISCOMs, it is now expected that actual installation will be reported by the implementing agencies and we will be able to achieve the target of 40 GW by the year 2022.

Ii MNRE has requested all the State/UT Governments to give wide publicity to the Rooftop Solar Programme including the incentive available for installation of Rooftop Solar. MNRE has also provided the content for the Information, Education and Communication (IEC) material to the States/UTs, which can be used for publicity of the Rooftop solar. MNRE has also planned public awareness campaign through print and electronic media at central level.

iii. As recommended by the Standing Committee, the review meetings with the implementing agencies are held regularly at Secretary and Joint Secretary level. During the Power Ministers Conference also the issue of Rooftop Solar Programme is deliberated by the Hon'ble Minister with his counterparts.

iv. In Phase-I of Rooftop Solar (RTS) Programme, there was a provision of 30% advance of the project cost calculated at benchmark cost or the tendered cost whichever is lower. Balance 70% of the payment was to be released after completion of the project and submission of all the documents. As, implementing agencies were taking longer time in submission of documents, therefore, release of balance 70% of the subsidy amount was taking time. In Phase-II of RTS Programme, a provision of additional 30% advance after the implementing agency exhausted the initial 30% advance has been made. Further, it has been made mandatory for the implementing agencies to submit the documents within 30 days after the project completion timelines. Further, the residential consumers will have to pay only the balance of subsidy amount to the empanelled vendor. For example, if the total cost of the system is Rs.100/- with subsidy amount of Rs. 40/-. Now consumer will have to pay only Rs.60/- to the empanelled vendor and subsidy amount of Rs.40/- will be claimed by the vendor from the DISCOM (which has been made the implementing agency). Therefore, the consumer will not

have to wait for the subsidy amount. With these provisions it is expected that process of subsidy disbursement will be faster.

v. Technical Assistance is being provided to the DISCOMs, the implementing agencies for creation of Single Window Clearance Portal. As one 13th August 2020, single Window clearance portals of 10 States are live and integrated with SPIN Portal of MNRE. It is expected that by 31st December 2020 all the implementing agencies will have this facility for their consumers.

vi. Ministry has written to all the State/UT Government to make the installation of Rooftop Solar mandatory in all the new buildings above a particular size. States of Uttar Pradesh, Haryana and UTs of Chandigarh and Delhi have notified regulations for mandatory installation of rooftop solar in new buildings above a particular size.

vii. Innovative ideas in installation, maintenance and business models by implementing agencies are shared with the other agencies from time to time.

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Comments of the Committee

(Please see Para No. 7 of Chapter – I of the Report)

(Recommendation Sl. No.11)

The Committee note that the issues cited by the DISCOMs against Net-Metering like revenue erosion, tariff increase for non-RTS consumers and backing down of conventional power etc. are of sustainable nature and these problems will certainly erode economic capacity of the DISCOMs and precisely for this reason, one or the other ruse will be cited to delay the process of net-metering. Any delay in the process will impair the pace of the solar mission. We cannot be ignorant of the fact that Solar Rooftop systems will eliminate the techno-commercial losses and thus will provide a model for imitation on a larger scale. If we are to usher in new concepts, some inherent problems may arise, but the wisdom lies in finding their solutions. The Committee, therefore, recommend that some alternative concepts like micro cooperative grid in a standalone manner be explored wherein a group of consumers/households can be pooled in for availing the solar rooftop benefits among themselves. It should also be examined whether there can be a mini/micro open excess window for this cooperative grid arrangement in rural/semi-urban areas.

REPLY OF THE GOVERNMENT

The Distribution Licensees (DISCOMs) have been made the implementing agency for the Rooftop Solar Phase-II program of MNRE, as the consumers have easy access and regularly interface with Discoms. Beyond playing a facilitative role, it provides an opportunity for Discoms to play an active role by leveraging access to the consumer base. Discoms can act as aggregators of RTS demand and leverage the transaction cost saved by the developers in accessing the interested consumers. Similarly, the Dis-

coms could invest in the RTS system and benefit from the lower power purchase cost as compared to newly build thermal power.

In this context, last year, the Forum of Regulators released a '*Report on metering regulation and accounting framework for grid-connected rooftop solar PV in India.'* The report details the utility-centric models, which could be adopted for accessing the benefits of rooftop solar promotion. In all these models, the utility acts as an aggregator of consumer interest for installing rooftop solar. The concept of mini/micro grid has been implemented under off-grid programme of MNRE to provide electricity to remote and far flung areas where grid is not available. Delhi is trying a model under which plant can be installed by group of persons at a available place and its energy can be shared by all the consumers.

a. Consumer-owned model (utility only aggregates)

- The EPC contract for installing the rooftop solar plants is signed between the consumer and the utility.
- The utility further signs a back-to-back agreement with the successful EPC player identified through reverse bidding.
- The utility earns revenue in the form of a one-time facilitation fee and a margin on the back-to-back EPC agreements.
- Kerala and MP have adopted this model. Most of the States also follow this model without actively participation in demand aggregation

b. Third party-owned (Utility aggregates and acts as a trader between the RESCO and Consumer)

- A RESCO selected based on reverse bidding invests in the RTS system.
- The RESCO will sign a PPA with the utility to purchase all the energy generated by the solar plant.
- The utility will sign a PSA with the consumer for the energy generated by RESCO.
- The utility will charge a trading margin or a fixed fee for facilitating the trading operations.
- Chandigarh and Delhi are in the process of filing a petition for adopting the same.

c. Utility owned (Utility aggregates and acts as RESCO)

- The utility in this model sets up, owns, and operates the RTS system.
- The PPAs are signed between the utility and the consumers.
- The utility collects the charges for the electricity consumed from the grid and the rooftop solar plants through monthly billing.
- The average cost of supply for the utility is reduced.
- Kerala has attempted an adaption of the model

As may be seen from the above three models that DISCOMs are coming forward to actively participate in the rooftop solar installation and driving the rooftop solar installation. Good work done in the State of Madhya Pradesh and models developed by Kerala, Delhi and Chandigarh have been circulated among all States so that other States can also come forward with innovative business models which take cares of the finance of the DISCOMs as well as attractive for the consumers also.

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(Recommendation Sl. No.13)

The Committee note that the Ministry has been able to install 1.27 lakh Solar Pumps till 31.05.2017. The Committee find that the objective of the Solar Pump Scheme is to replace existing diesel pumps and the scheme is mainly focused on small and marginal farmers. The Ministry provides upto 30% capital subsidy through State Nodal Agencies for irrigation and drinking water and 40% capital subsidy through NABARD with mandatory loan. However, it has been submitted that the Ministry has advised stoppage of subsidy scheme routed through NABARD and the same will now be handled by IREDA. The Committee hope that with this switchover, more farmers will be benefitted. The Committee, therefore, recommend that:

i. As the scheme is mainly focused on small and marginal farmers who may not be able to bring upfront capital, the procedure for availing loans should be made easier and simpler.

ii. The procedure for disbursement of capital subsidy should also be made faster and inclusive.

iii. The Ministry should ensure quality, sustainability and maintenance of installed Solar Pumps.

iv. The Ministry should analyze reasons for the scheme being unsuccessful with NABARD and it should be ensured that the same are not repeated in the new arrangement.

REPLY OF THE GOVERNMENT

I. Solar Pumping Programme

Solar Pumping Programme was first started by MNRE in the year 1992. From 1992 to 2014, about 11,600 solar pumps were installed in the country. During 2014-15, the Government allocated Rs. 400 crore for installation of one lakh solar pumps for irrigation and drinking water in the country under Off-grid and Decentralized Solar PV Applications Programme Phase-II. Under the Scheme, 30% of the benchmark cost of the solar pumps was available as CFA for projects sanctioned to SNAs and 40% of the benchmark cost of the solar pumps was available as CFA for pumps installed through NABARD with loan component. Subsequently, during 2017-18 to support small capacity pumps to marginal farmers, CFA pattern was revised as given below:

- *Capacity less than 1 hp - 30% subsidy*
- *Between 1 hp and 3 hp - 25% subsidy*
- *Between 3 hp and 5 hp - 20% subsidy*

During Phase-II, 1.94 lakh solar pumps were sanctioned, out of which 1.78 lakh pumps have been installed, including 4012 nos. of solar pumps through NABARD. Standalone solar pumps were part of the Off-grid and Decentralised Solar PV Applications Scheme up till 31.03.2017.

II. Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM)

i. Ministry has launched Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (PM-KUSUM) which includes installation of off-grid solar pumps and solarization of existing grid connected agricultural pumps. Under the scheme, 30% of the cost of system is provided by each of the

Central Government and State Government (total 60%). Balance 40% of the cost is to be invested by the farmer, out of which 30% may be provided by bank and 10% will be upfront investment by the farmer.

ii. MNRE subsidy will be provided in two tranches, 40% of the subsidy will be provided in advance on placement of work order by the State Implementation agency and balance 60% on completion of the project. Farmer only needs to deposit their share of 40% (10% in case of loan from bank) and balance 60% will be directly paid to the supplier on installation of the system.

iii. To ensure quality, sustainability and maintenance, following provisions have been included:

a. Systems will be installed as per MNRE specifications and relevant standards.

b. Selected vendors shall be responsible for design, supply, installation and commissioning of solar agriculture pumps. Vendors will mandatorily provide AMC for a period of 5 years from the date of commissioning of the systems including insurance coverage for the installed systems against natural calamities and theft.

c. AMC will include inspection by Vendor at least once in a quarter and submission of quarterly inspection report of the installed pumps as per prescribed format.

d. To ensure timely maintenance of the systems the vendor shall have one authorized service centre in each operational district and a helpline in local language in each operational State. Helpline number shall be indicated on the pump/ controller at suitable location easily visible to the user.

e. All solar Agriculture pumps sanctioned under the Programme shall be provided with remote monitoring system by the vendor. It will be mandatory to submit performance data of solar power plant online to MNRE in the manner and format prescribed by MNRE.

f. Funds will be released by implementing agency to the vendor on submission of bank guarantee equivalent to 10% of the cost of systems installed by that vendor for a period of five years. Alternatively, BG may be provided initially for a period of one year which may be extended on year to year basis thereafter.

g. In case the installed systems are not as per standards, non-functional on account of poor quality of installation, or non-compliance of AMC, the Ministry reserves the right to blacklist the vendor.

iv. After careful assessment of drawbacks of the scheme which was implemented by NABARD provisions as mentioned above have been included in the Guidelines for PM-KUSUM to ensure proper installation and monitoring.

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(Recommendation Sl. No.14)

Progress of National Solar Mission

The Committee note that the Ministry has a target of installation of 600 MW of Off-Grid Solar Applications during Phase II of NSM (2013-17), out of which 345.50 MW has been installed. The Committee are disappointed with the performance of the Ministry in

this sector. The Committee feel that Off-Grid Solar Applications can play a significant role in giving electricity access to remote locations where extension of centralized grid is uneconomical. However, Off-Grid Applications too face some obstacles including high capital cost, complicated procedure of subsidy disbursal, difficulty in local operation and maintenance. The Committee, therefore, recommend that:

i. Innovative schemes should be devised to drive down cost and increase return on investment.

ii. Procedure of disbursement of subsidies should be made simpler and faster.

iii. Public-Private Partnership with rural entrepreneurs should be encouraged.

iv. Large multi-national companies should be persuaded to dedicate part of their Corporate Social Responsibility (CSR) fund to Off-Grid Solar Projects.

REPLY OF THE GOVERNMENT

i. Following measures have been taken by the Ministry under Off-grid and Decentralized Solar PV Applications Scheme Phase-III to ensure lower cost of adoption and increased returns:

   a. Centralized tender has been conducted for solar street lights and solar study lamps after aggregating demand from various States.

   b. Improved specifications have been adopted for installation of solar street lights which includes higher illumination through 12 W LED and better storage capacity through Lithium batteries.

   c. RESCO based models have been brought in for solar power plants to avoid high upfront investment. Institutional consumer will only have to pay for usage charges on per unit basis.

ii. Procedure for disbursement of subsidies has been made faster and particularly in NER and Hill States/UTs advance CFA is provided by MNRE. Further the centralized tender also makes the process faster as only one tender is conducted in place of multiple tenders by States. Ministry has also developed web-based monitoring platform for faster inspection and better monitoring of the installed systems.

iii. RESCO based model has been developed for installation of solar off-grid systems in North-eastern States wherein service provider companies including local/ small developer will install the system with MNRE subsidy and their own investment and supply power to institutional consumer on per unit basis.

iv. Although there is no scheme for use of CSR funds for installation of solar off-grid applications, such investment through CSR is already being done wherein a part of cost for common use applications is funded through CSR. Further, based on requests received from Hon'ble MPs and MLAs from various States, PSUs under the administrative control of MNRE and MoP have provided funds through CSR for installation of applications such as solar street lights, solar lanterns and solar pumps for community usage.

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(Recommendation Sl. No.15)

The Committee note that the per unit price of Solar Power in India has dropped from Rs. 10.95 in December, 2010 to Rs. 2.44 in May, 2017. Solar Power has become cheaper than coal-based thermal Power Plant. The Ministry submitted that the project cost per MW, to make the unit cost of Rs. 2.44 viable, works out to be Rs. 3.75 crore per MW. However, the parameter considered by the successful bidder for arriving at Rs. 2.44 per unit is not available with the Ministry. The Committee are informed that as per Central Electricity Regulation Commission (CERC) norms, the life of a Solar project is 25 years and Return on Equity (RoE) is 14%. However, for arriving at lower tariff, the bidder may have considered a lower RoE. The Committee note that in a rush to build market share in this sector, some players have become very aggressive in competitive auction and are bidding very low tariff. The Committee are apprehensive about the quality of material used. The Committee are of the view that some of these projects would become unviable because the developers may find it difficult to raise funds and contain high project costs and such a low Solar Tariff would also affect the viability of those Solar Projects which have been awarded earlier at a higher rate. The Committee are concerned about the viability of such solar power projects. The Committee, therefore, recommend that:

i. High Anti-Dumping Duty or Duty based on efficiency of the material imported should be imposed so as to discourage import of poor quality material.

ii. The Ministry should ensure that some outlying bids do not disturb the market dynamics.

REPLY OF THE GOVERNMENT

i. At different times, petitions were filed for imposition of Anti-Dumping Duty and Safeguard Duty on import of solar PV cells and modules. Safeguard Duty has been imposed by Department of Revenue on import of solar PV cells and modules.

ii. The bidding are held in transparent manner and it is left to the market forces to decide the tariff for solar power projects.

[Ministry of New & Renewable Energy OM.No.372-12/8/2017-PU Dated: 18/09/2020]

(Recommendation Sl. No.16)

The Committee note that DISCOMs are not able to comply with their RPO target because of the high cost and infirm nature of the Renewable Energy. But, it has been submitted that the tariff for renewables has come down, Solar and Wind have reached grid parity and steps have been taken to address the infirm nature of Renewable Energy. The Committee also note that the Ministry of Power has issued guidelines for year-wise growth trajectory for RPO compliance upto 2018-19 and a web portal is being created for online monitoring of RPO compliance. However, the Committee find that the States are not willing to comply with their Renewable Purchase Obligations and they continue to default on their RPO targets which prima facie points to a systemic flaw in the working of the concept of Renewable Energy Obligations. Keeping in view the importance of Renewable Energy and the utmost need to increase the share of Renewable Energy in India's Energy mix, the Committee recommend that:

i. The Ministry should work towards aligning State-wise Renewable Purchase Obligations (RPOs) with the RPO trajectory as notified by the Ministry of Power.

ii. For ensuring stricter compliance, the Ministry should come up with some Penal Provisions for non-complying States so that such States may fall in line and make every effort to fulfill their Renewable Energy Obligations.

iii. Reasons should also be analyzed as to why this scheme has not been successful in getting proper response from the States.

REPLY OF THE GOVERNMENT

The Ministry has been consistently following with States/UTs for ensuring RPO compliance, and also aligning RPO trajectory with that notified by the Ministry of Power. In order to create robust RPO compliance regime, under Section 142 of the Draft Electricity (Amendment) Bill 2020, penalty for non-compliance with the directions of the Appropriate Commission is proposed to be increased upto Rs 1 crore (from Rs 1 lakh), with an additional per day penalty in case of continuing non-compliance of Rs 1 lakh (from Rs 6000). Special penalty for failure to comply with purchase of renewable and hydro power as specified by the central Government has been proposed. The Amendment Bill proposed a penalty of Rs 0.50/kWh for the shortfall in purchase in the first year of default, and if such default continues for the second successive year, then the penalty is proposed to be increased to Rs 1/kWh and thereafter Rs 2/kWh. In addition, under Section 146, penalty for non-compliance of orders or directions under the Electricity Act has been increased to upto Rs 1 crore (from Rs 1 lakh), with an additional per day penalty in case of continuing non-compliance of Rs 1 lakh (from Rs 5000).

Reasons attributed for RPO non-compliance include perception of some of the Discoms that renewable energy costs more than other energy sources, resulting in cost-driven decisions and policies that avoid renewable energy. Some Discoms have perception that additional cost associated with integration may be very high. However, these are largely associated with system inertia and progressively Discoms have started realizing positive attributes of renewable energy. In addition, Ministry has been progressively advancing products capable of providing steady and dispatchable power from renewable energy sources to meet the Discom's requirements.

[Ministry of New & Renewable Energy
OM.No.372-12/8/2017-PU Dated: 18/09/2020]

(Recommendation Sl. No.17)

The Committee have been informed that one of the challenges to meet the target of 100 GW by 2022 is delay in signing of PPA after finalization of tenders which is a consequence of lack of directions from parent Ministry, lengthy internal approval process, involvement of multiple Ministries, lack of prior experience of the Government Departments etc., and the possible fallouts of this situation are delay in project implementation, changes in scheme norms, change in cost/incentives, backing out of developers, revenue loss for entity etc. The Committee have taken a serious view of this situation as with this delay in signing of PPAs, the sanctity of the whole Mission will be affected and the Ministry will not be able to achieve its target within the stipulated time. The Committee, therefore, recommend that:

i. The Ministry should devise a single window system wherein lengthy internal approval process and involvement of multiple Ministries can be avoided.

ii. The Ministry should come up with model PPAs with the help of specialized agencies.

REPLY OF THE GOVERNMENT

The suggestions of the Committee have been noted. Further, Ministry of New & Renewable Energy (MNRE) has prepared Standard Bidding Guidelines for Tariff Based Competitive Bidding Process for Procurement of Power from Grid Connected solar PV and Wind Power Projects, which provide for a detailed standardized framework for procuring solar/ wind power in a fair and transparent manner.

[Ministry of New & Renewable Energy OM.No.372-12/8/2017-PU Dated: 18/09/2020]

Comments of the Committee

(Please see Para No. 13 of Chapter – I of the Report)

(Recommendation Sl. No.18)

Solar Manufacturing in India

The Committee note that India has installed solar PV manufacturing capacity of round 3 GW for solar PV Cells and around 7 GW for solar PV modules, however, the actual production is 1 GW and 3 GW respectively. Also, solar PV power installed in the year 2016-17 was about 5.5 GW and the target for 2017-18 is around 10 GW. The Ministry has submitted that the installed manufacturing capacity of solar PV cells and modules is not capable of catering the annual demand of the country and China and China controlled Taiwan + SEA hold 85% of total global capacity for solar cell and module manufacturing. The Committee find that despite its low labour cost, Indian Manufacturers are not able to compete with Chinese Firms. The Committee also note that the Government of India provides incentives for solar manufacturing under Modified Special Incentive Package Scheme (M-SIPS) of the Ministry of Electronics and Information Technology (MeitY). M-SIPS provide a capital subsidy to promote large scale manufacturing in the Electronic System Design and Manufacturing (ESDM) sector which also includes Solar Photovoltaic units. The Committee are concerned about the lack of domestic Solar Manufacturing Capacity. The Committee are of the view that it is a necessity for India to support Domestic Solar Manufacturing as over-reliance on a single country puts Indian Solar Sector at a risk of disruption in supply chain. The Committee, therefore, recommend that:

i. The Ministry should urgently formulate a dedicated programme to establish India as a Solar Manufacturing Hub so as to provide policy support to the complete value chain.

ii. There should be excise duty exemption and Zero import duty on raw materials.

iii. The Ministry should work to provide Viability Gap Funding (VGF) and low interest rate loans to domestic manufacturers.

iv. There should be provision for establishment of manufacturing units inside the Solar Parks so that Manufacturers may benefit from the Infrastructure & ecosystem of the Solar Parks.

v. The Ministry should focus on quality and reliability of the Solar Cells/Modules.

REPLY OF THE GOVERNMENT

To provide financial support as well as to reduce the financing cost for domestic solar PV manufacturing, Ministry of New & Renewable Energy (MNRE) is in the process of formulating "National Programme on Solar PV Manufacturing". This would help in setting up of new Giga-scale solar PV manufacturing facilities in India.

As per notification No. 24/2005-Customs dated 1st March, 2005, of Department of Revenue, Ministry of Finance, all goods required for the manufacture of solar PV cells and modules, when imported into India, are exempt from the whole of the duty of customs leviable thereon, provided that the importer follows the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty for Manufacture of Excisable Goods) Rules, 1996.

As per Notification No. 50/2017-Customs dated 30th June, 2017, of Department of Revenue, Ministry of Finance, capital equipment required for the manufacture of solar PV cells and modules, when imported into India, are exempt from the whole of the duty of customs leviable thereon under First Schedule of Customs Tariff Act, 1975, provided they are included in the goods specified in List 19 of the said Notification, as mentioned in Sl. No. 426 of the Table included in the said notification, provided that the importer follows the procedure set out in the Customs (Import of Goods at Concessional Rate of Duty) Rules, 2017.

The Ministry of New & Renewable Energy is facilitating setting up of renewable energy manufacturing hubs in the country, preferably at location near ports. Such renewable energy manufacturing hubs are expected to create a holistic environment for fully integrated manufacturing of renewable energy equipment in the country.

For quality and reliability assurance, MNRE is implementing the Quality Control Order on SPV Systems, Components and Devices (Compulsory Registration Scheme), which covers SPV modules, inverters and battery storage. These products are required to conform to specified Indian Standards. Products qualifying the standards tested in BIS recognized test labs are required to be registered by the respective manufacturers with BIS.

[Ministry of New & Renewable Energy
OM.No.372-12/8/2017-PU Dated: 18/09/2020]

Comments of the Committee

(Please see Para No. 16 of Chapter – I of the Report)

(Recommendation Sl. No.19)

R & D and Human Resource Development

The Committee note that the Ministry has spent Rs. 534.30 crore on Research and Development out of the total expenditure of Rs. 11250 crore on Renewable Energy during the 12th Five Year Plan Period. During the year 2016-17 expenditure on R&D in renewable energy was Rs. 100 crore. The Ministry submitted that in the field of Solar PV, R&D efforts are directed to improving the efficiency of solar cells, developing inverters and power electronic systems, storage systems. According to the MNRE, its Research & Development activities aims at resource assessment, technology development, demonstration and commercialization for promoting the large scale use of new and renewable energy across the country. The Committee are of the view that the large scale utilization of solar energy can only be sustained if it is backed by indigenous R&D, innovation and manufacturing capability. The Committee, therefore, recommend that:

i. The Ministry should adopt a coordinated approach for successful collaboration among the technological and R&D institutions and the industries to achieve the goal of indigenous renewable energy technology development and innovation.

ii. The Ministry should also ensure constant monitoring of all the R&D projects with a view to evaluating their functioning in a cost effective and result-oriented manner.

iii. The Ministry should provide financial support to start-ups, entrepreneurs and innovators for R&D of new solar related technologies and for creating new and unique business models which have a potential of increasing the deployment of solar related technologies.

REPLY OF THE GOVERNMENT

i. The R&D scheme and policy was launched in Feb, 2019 with a provision to support for technology development and demonstration in various areas of new and renewable energy such as solar thermal, solar photovoltaic, biogas, waste to energy, wind energy, hybrid systems, storage, geothermal, hydrogen and fuels cells etc. with the ultimate aim of increasing share of renewables in the energy mix in the country. In the scheme, there is a provision for encouraging innovation and start-ups for major intervention for promoting setting up small scale industries for indigenous development and manufacture of new and renewable energy systems/components/devices. To achieve the goal of indigenous renewable energy technology development, innovation & manufacturing capability, the proposals are invited from the R&D institutes/ Universities/IITs/NITs/ Industry/start-ups in line with the R&D thrust area of the Ministry. The proposals are screened and sanctioned after the expert evaluation/RDPAC Committees.

Ministry has sanctioned the R&D projects with a target efficiency of 22% mono crystalline solar cell to IIT Bombay and 22% on PERC mono crystalline solar cell to BHEL. National Centre for Photovoltaic and Research and Educations (NCPRE) by IIT Bombay developed 19.4 % efficiency crystalline silicon solar cell against targeted efficiency of 22%, developed various inverters and electronics, research on latest solar cell development in thin film/pervoskite, done various studies on all India module degradations and development of storage systems with aim to indigenous R&D, innovation, technology development and commercialization.

ii. Monitoring and evaluation of the research and technology development activities are being undertaken through Project Monitoring Committees (PMCs) of the respective renewable energy technology area. PMCs continuously monitors project implementation and recommend mid-course corrections, budget revisions, realigning of objectives to enable delivery of the envisaged project outcomes with a view to evaluating their functioning in a cost effective and result-oriented manner

iii. The standing committee recommendations will be followed and would also ensure a coordinated approach for successful collaboration among the scientific & technical Institutes like IITs, NISE, NIWE, NIBE, other R&D institutions and industry to achieve the goal of indigenous renewable energy technology develoopent and innovation.

[Ministry of New & Renewable Energy OM.No.372-12/8/2017-PU Dated: 18/09/2020]

(Recommendation Sl. No.20)

The Committee note that the Ministry has launched the Suryamitra Training Programme with a target of training 50,000 persons as Solar PV Technicians in the various States by 2019, to be skilled for acting as installation, commissioning and after sales services (Operation & Maintenance) providers with entrepreneurship skills in the field of renewable energy with special reference to solar energy. The Committee also note that so far, 11,013 Suryamitras have been trained under this programme in the country. The Ministry has submitted that it has sanctioned/released an amount of Rs. 41.91 crore to National Institute of Solar Energy (NISE) for implementation of Suryamitra programme and NISE has spent Rs. 35.4 crore as on 31.03.2017. The Committee are of the view that the large-scale installation of Solar Energy will require a technically qualified manpower of high standard. The Committee, therefore, recommend that:

i. Specialized courses in Solar Energy should be introduced in Research Institutes and other Institutes of higher studies, like IITs, IISc, etc. with financial assistance from the Government.

ii. The Ministry should provide scholarship for research in the field of Solar Energy.

REPLY OF THE GOVERNMENT

(i) Most of the IITs and NITs and other universities introduced renewable / solar energy courses in B.Tech/M.Tech degree courses as main/ancillary subjects. Ministry also provides financial assistance/grant for upgradation of laboratory facilities in renewable energy research in reputed academic and research institutions engaged in RE education and research.

(ii) The Ministry is providing scholarships/ fellowships to the students pursuing M.Tech / M.E , M.Sc (Renewable Energy) , Junior and Senior Research Fellowships for students pursuing Ph.D degree in renewable energy including Solar energy Research Associates and Post Doctoral fellowships for research scholars, under National Renewable Energy Fellowship scheme as per AICTE, DST/MHRD/CSIR guidelines. Ministry, under National Renewable Energy Science Fellowship Scheme also provides fellowship for eminent scientists with a doctorate degree and with experience of at least ten years RE research, working in institutes with an innovative idea in renewable energy/solar energy.

[Ministry of New & Renewable Energy OM.No.372-12/8/2017-PU Dated: 18/09/2020]

CHAPTER III

OBSERVATION/RECOMMENDATION WHICH THE COMMITTEE DO NOT DESIRE TO PURSUE IN VIEW OF THE GOVERNMENT'S REPLIES

(Recommendation Sl. No.12)

Off-Grid Solar Applications

The Committee note that under Atal Jyoti Yojana, there is a target of installation of 2,97,440 Street Lights in 169 constituencies in Uttar Pradesh, Bihar, Jharkhand, Odisha and Assam by 2018. However, only 9401 street lights have been installed so far. Out of which, 9179 Street Lights have been installed in Uttar Pradesh only. The main constraining factor is availability of batteries which are needed to be imported. The Committee are apprehensive about the installation of remaining 2,88,039 Street Lights by March, 2018. The Committee, therefore, recommend that:

i. The Ministry should speed up the installation process in consultation with the Energy Efficiency Services limited (EESL) and all the five State Governments concerned.

ii. The Ministry should also ensure proper functioning and maintenance of the installed Street Lights with the help of Panchayats/Urban Local Bodies (ULBs).

REPLY OF THE GOVERNMENT

i. Ministry had expedited installation under Phase-I of the AJAY Scheme and a total quantity of 1,35,393 nos. of solar street lights have been installed in the States of Uttar Pradesh, Bihar, Jharkhand, Odisha and Assam. State-wise break-up is given below:

S. No.	State	No. of solar street lights installed under phase-I
1	Uttar Pradesh	79543
2	Bihar	29923
3	Jharkhand	10535
4	Odisha	8733
5	Assam	6659
	Total	135393

Under the Scheme, 25% of the cost of solar street lights was to be provided through MPLADS. Therefore, being a demand driven scheme, street lights could be installed in constituencies wherein required funds were sanctioned by the District Administration on recommendation of Hon'ble Member of Parliament.

Subsequently, AJAY Phase-II Scheme was launched on 18.12.2018, wherein besides the States covered in Phase-I, NER States, Hill States & UTs, Island UTs and aspirational districts were also covered. Before closure of the scheme due to discontinuation of MPLADS by Government on account of COVID-19, a total quantity of 1.44 lakh solar

street lights were sanctioned by District Administrations. Out of this, 62,736 nos. of solar street lights have already been installed.

ii. To ensure proper functioning and maintenance of the installed Street Lights following provisions have been included in the AJAY Guidelines:

a. 5 years of Annual Maintenance Contract (AMC) is provided by the supplier to ensure the overall maintenance of the Solar Street Lighting Systems by the suppliers for 5 years.

b. Complaint management portal and toll-free number are available for resolving complaints.

c. Bank Guarantee (BG) of 10% of the award amount with a validity of 1 year, to be rolled over every year for the first five years, will be given by the suppliers of the system.

d. In case service is not provided by the supplier or the system is not working properly or supplier fails to repair or replace the faulty systems within the time specified in the tender, the BG may be encashed to repair or replace the systems as may be required. In case the supplier fails to repair or replace the faulty systems within the time specified in the tender, MNRE will have the right to black list the supplier for future projects/works.

[Ministry of New & Renewable Energy
OM.No.372-12/8/2017-PU Dated: 18/09/2020]

CHAPTER IV

RECOMMENDATION / OBSERVATION IN RESPECT OF WHICH THE REPLY OF THE GOVERNMENT HAS NOT BEEN ACCEPTED BY THE COMMITTEE AND WHICH REQUIRE REITERATION

(Recommendation Sl. No.10)

The Committee note that the Electricity Regulatory Commissions of all the 36 States/UTs have notified regulations/tariff orders for net metering/feed-in-tariff mechanism. But DISCOMs are reluctant to operationalize the Net-Metering Regulations as it may reduce their income from high-paying customers. The Committee also note that from the consumers point of view, availability of NetMeters, time taken for giving Net-Metering connections by DISCOMs, inspection by Chief Electrical Inspector (CEI), etc. are few of the concerns. The Committee are of the view that to give boost to Rooftop Solar Systems, operationalization of Net-Metering is of utmost importance. It reduces AT&C losses and need for large tracts of land. It even helps DISCOMs to avoid buying expensive peak power. The Committee, therefore, recommend that:

i. The concept of Cross-Subsidy should be reconsidered so that Net-Metering for all users will make more financial sense.

ii. Clear installation guidelines should be formulated by the Central and State Regulatory Authorities.

iii. There should be proper training of DISCOM's staff on implementation of Net-Metering.

REPLY OF THE GOVERNMENT

i. All the Regulators have notified the metering regulations. Although Net metering is available for the residential sectors in all the States, however, in addition to Net Metering, gross metering and Net billing have also been prescribed by some State Regulators for commercial and Industrial Sectors. Ministry has regularly pursued with the State Government to approve the Net Metering/Gross Metering for the Rooftop Solar installer in a time bound manner. Ministry has also written to the State Governments and State Electricity Regulators to fix the tariff under Gross Metering by considering the capital cost involved in installation of Rooftop Solar and a reasonable return on the capital cost so that the same is recovered in a reasonable time of 5-6 years. The issue of cross subsidy is a sensitive issue under the domain of State Governments; therefore, each State Government takes a view as per the recommendations of State Electricity Regulatory Commission as per local requirement.

ii. Ministry has written to all the State Governments to notify standard procedure for installation of rooftop solar and also shared a indicative operating procedure with timelines for each activities for installation of rooftop solar by the consumers.

iii. Technical Assistance is being provided to the DISCOMs, the implementing agencies by the multilateral agencies like World Bank, ADB, European Union

and GIZ (German Agency) under bilateral agreement. These agencies under the guidance of MNRE provide technical assistance programme provide training to the DISCOMs Staff for Net metering is also covered in addition to other issues.

[Ministry of New & Renewable Energy OM.No.372-12/8/2017-PU Dated: 18/09/2020]

Comments of the Committee

(Please see Para No. 10 of Chapter – I of the Report)

CHAPTER V

RECOMMENDATIONS/ OBSERVATION IN RESPECT OF WHICH FINAL REPLY OF THE GOVERNMENT IS STILL AWAITED

-NIL-

NEW DELHI
18th March, 2021
Phalguna 27, 1942 (Saka)

Rajiv Ranjan Singh *alias* Lalan Singh,
Chairperson,
Standing Committee on Energy

APPENDIX –I

MINUTES OF THE EIGHTH SITTING OF THE STANDING COMMITTEE ON ENERGY (2020-21) HELD ON 18th MARCH, 2021 IN COMMITTEE ROOM '2', PARLIAMENT HOUSE ANNEXE EXTENSION, NEW DELHI

The Committee met from 1500 hrs. to 1535 hrs.

Shri Rajiv Ranjan Singh alias Lalan Singh - Chairperson

LOK SABHA

2. Kumari Shobha Karandlaje
3. Shri Ramesh Chander Kaushik
4. Shri Ashok Mahadeorao Nete
5. Shri Parbatbhai Savabhai Patel
6. Shri Dipsinh Shankarsinh Rathod
7. Shri N. Uttam Kumar Reddy
8. Shri Shivkumar Chanabasappa Udasi

RAJYA SABHA

9. Shri T.K.S. Elangovan
10. Shri Maharaja Sanajaoba Leishemba
11. Shri Jugalsinh Mathurji Lokhandwala
12. Dr. Sudhanshu Trivedi
13. Shri K.T.S. Tulsi

SECRETARIAT

1. Shri R.C. Tiwari - Joint Secretary
2. Shri R.K. Suryanarayanan - Director
3. Shri Kulmohan Singh Arora - Additional Director
4. Smt. L.N. Haokip - Deputy Secretary

2. At the outset, the Chairperson welcomed the Members and apprised them about the agenda of the sitting. The Committee then took up the following ten draft Reports for consideration and adoption:-

a) Report on Action-taken by the Government on the recommendations contained in the 28th Report (16th Lok Sabha) on 'National Solar Mission-An Appraisal';

b) Report on Action-taken by the Government on the recommendations contained in 37th Report (16th Lok Sabha) on Stressed/Non-performing Assets in Power Sector';

c) Report on Action-taken by the Government on recommendations contained in 40th Report (16th Lok Sabha) on 'Impact of RBI's Revised Framework for Resolution of Stressed Assets on NPAs in the Electricity Sector';

d) Report on Action-taken by the Government on recommendations contained in 42nd Report (16th Lok Sabha) on 'Stressed/Non-Performing Assets in Gas based Power Plants';

e) Report on Action-taken by the Government on the recommendations contained in the 43rd Report (16th Lok Sabha) on 'Hydro Power'; and

f) Report on Action-taken by the Government on the recommendations contained in the 1st Report (17th Lok Sabha) on Demands for Grants (2019-20) of the Ministry of New and Renewable Energy;

g) Report on Action-taken by the Government on the recommendations contained in the 2nd Report (17th Lok Sabha) on Demands for Grants (2019-20) of the Ministry of Power;

h) Report on Action-taken by the Government on the recommendations contained in the 3rd Report (17th Lok Sabha) on Demands for Grants (2020-21) of the Ministry of New and Renewable Energy'.

i) Report on Action-taken by the Government on the recommendations contained in the 4th Report (17th Lok Sabha) on Demands for Grants (2020-21) of the Ministry of Power.

j) Report on the subject 'Action Plan for achievement of 175 Gigawatt (GW) Renewable Energy Target'.

3. After discussing the contents of the Reports, the Committee adopted the aforementioned draft Reports without any amendment/modification. The Committee also authorized the Chairperson to finalize the above-mentioned Reports and present the same to both the Houses of Parliament in the current Budget Session.

The Committee then adjourned.

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APPENDIX-II

(*Vide Introduction of Report*)

ANALYSIS OF ACTION TAKEN BY THE GOVERNMENT ON THE RECOMMENDATIONS/ OBSERVATIONS CONTAINED IN THE 28th REPORT (16TH LOK SABHA) OF THE STANDING COMMITTEE ON ENERGY

(i)	Total number of Recommendations	20
(ii)	Recommendations/ Observations which have been accepted by the Government: Sl. Nos. 1,2,3,4,5,6,7,8,9,11,13,14,15,16,17,18,19 and 20	
	Total: Percentage	18 90%
(iii)	Recommendation/ Observation which the Committee do not desire to pursue in view of the Government's reply: Sl. No.12	
	Total: percentage	01 05%
(iv)	Recommendation/ Observation in respect of which the reply of the Government has not been accepted by the Committee and which require reiteration: Sl.No.10	
	Total: Percentage	01 05%
(v)	Recommendation/ Observation in respect of which final reply of the Government are still awaited: Nil	
	Total: Percentage	00 00%