

SENATE OF PAKISTAN

REPORT NO.06
Parliamentary Year 2020-21



House of the Federation
HOUSE OF THE FEDERATION

SPECIAL REPORT OF THE SENATE STANDING COMMITTEE ON POWER

ON

**VARIOUS PROBLEMS BEING FACED BY THE RENEWABLE
ENERGY PROJECTS IN THE COUNTRY AND ACTUAL
PERCENTAGE OF LINE LOSSES/THEFT OF THE DISCOS**

PRESENTED BY:

**SENATOR FIDA MUHAMMAD
CHAIRMAN COMMITTEE**

SENATE SECRETARIAT

REPORT OF THE SUB-COMMITTEE OF THE SENATE STANDING COMMITTEE ON POWER REGARDING VARIOUS PROBLEMS BEING FACED BY THE RENEWABLE ENERGY PROJECTS IN THE COUNTRY AND ACTUAL PERCENTAGE OF LINE LOSSES/THEFT OF THE DISCOS

I, Senator Fida Muhammad, Chairman, Senate Standing Committee on Power, have the honour to present the Special Report of the Committee on "various problems being faced by the Renewable Energy Projects in the country and actual percentage of line losses/theft of the DISCOs".

2. The composition of the Standing Committee is as under:-

1.	Senator Fida Muhammad	Chairman
2.	Senator Mirza Muhammad Afridi	Member
3.	Senator Nauman Wazir Khattak	Member
4.	Senator Dr. Ghous Muhammad Khan Niazi	Member
5.	Senator Ahmed Khan	Member
6.	Senator Agha Shahzaib Durrani	Member
7.	Senator Mushahidullah Khan	Member
8.	Senator Dilawar Khan	Member
9.	Senator Moula Bux Chandio	Member
10.	Senator Syed Muhammad Ali Shah Jamot	Member
11.	Senator Muhammad Akram	Member
12.	Senator Molvi Faiz Muhammad	Member
13.	Senator Siraj ul Haq	Member

3. In pursuance of sub-rule (1) of Rule 183 of the Rules of Procedure and Conduct of Business in the Senate, 2012, the Standing Committee on Power in its meeting held on 8th October, 2019 constituted a Sub-Committee. The composition and the Terms of Reference of the Sub-Committee were as under:-

COMPOSITION

i.	Senator Syed Shibli Faraz	Convener
ii.	Senator Nauman Wazir Khattak	Member
iii.	Senator Sirajul Haq	Member

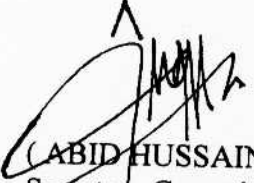
TERMS OF REFERENCE

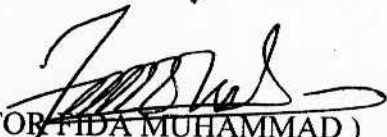
- i) Category II projects (as defined in RE Policy 2006) facing transmission and grid interconnection problems.

- ii) To evaluate the Variable Renewable Energy (VRE) Integration and Planning; its demand and generation forecast analysis. The Human Resource capacity and the multi tariff energy calculation and its requirement with "Plexos".
- iii) To ascertain the actual percentage of line losses/theft, Power Division to provide the DISCOs' last two years' month to month comparison of the units received, units billed and units against which payment received.
- iv) Role of AEDB in effective implementation of RE Projects.

4. The Sub-Committee accordingly held its meetings on 2nd December, 2019 and 31st January, 2020, at Parliament House, Islamabad. During the Sub-Committee's meetings threadbare discussions were held on the TORs mentioned above.

5. The report of the sub-Committee was presented to the whole Committee in its meeting held on 18th August, 2020. The Committee adopted the report and recommended presentation of the report to the House for consideration and adoption as a Special Report of the Committee.


(ABID HUSSAIN)
Secretary Committee


(SENATOR FIDA MUHAMMAD)
Chairman Committee

SENATE SECRETARIAT

REPORT OF THE SUB-COMMITTEE OF THE SENATE STANDING COMMITTEE ON POWER

Regarding various problems being faced by the Renewable Energy Projects in the country and actual percentage of line losses/theft of the DISCOs

I, Senator Syed Shibli Faraz, Convener of the Sub-Committee of the Senate Standing Committee on Power, have the honour to submit, on behalf of the Sub-Committee, this report to the main Committee.

2. In pursuance of sub-rule (1) of Rule 183 of the Rules of Procedure and Conduct of Business in the Senate, 2012, the Standing Committee on Power in its meeting held on 8th October, 2019 constituted a Sub-Committee. The composition and the Terms of Reference of the Sub-Committee are mentioned as under:-

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1st Meeting

3. The 1st meeting of the Sub-Committee was held on 2nd December, 2019, at 2.30 p.m. in Committee Room No.1, Parliament House, Islamabad.

4. The Sub-Committee was updated by the Convener about the policy decision made by the former government due to which the renewable energy projects had been stuck since 2017. The present government took the initiative to remove all policy bottlenecks and setting the projects



on track in line with the upcoming ARE policy 2019. The existing twelve wind power projects will produce 610MWs providing 2 billion units, Rs.06 per unit, of cheap electricity annually. The NTDC informed the Committee that power supply from these projects would be started with completion of grid connectivity by the end of 2021.

5. The issue of reservations of Sindh government on Alternative Renewable Energy (ARE) Policy 2019, came under discussion. The AEDB informed the Committee that all the concerns of Sindh Province were taken into consideration during consultative board meetings and the matter would be further raised in CCI meeting in which ARE policy 2019 would be taken-up for final approval. NEPRA apprised the Committee that Sindh government had also been granted license for their transmission and despatch of electricity.

6. Senator Nauman Wazir Khattak suggested that while venturing into RE sector, the concerned authorities should consider whether RE projects were really the requirement of the country and be vigilant while allowing provinces for RE projects to keep the production in limits. He said that the integrated generation and future plans based on minimum fifty years should depend on constant supply instead of Variable Renewable Energy (VRE). The Convener stressed the need to devise a comprehensive strategy to produce cheap and clean electricity from renewable resources keeping in view the country's energy requirements. He said that government had approved various RE production schemes which were going to impact the economy positively.

7. Senator Sirajul Haq pointed out that transmission system of KP was unable to bear the load hence increase in generation was not feasible. Senator Nauman Wazir Khattak underlined the need to upgrade the transmission system in the country. The MD NTDC apprised that five new grid stations had been added to the system and the number of grid stations would be increased as and when needed.

8. The Committee was informed that, to add to the human resource capacity of the organization, in April 2019 nine fresh engineers (out of total 160 in NTDC) had been inducted in the Power System Planning department. At present, capacity building is in process by the World Bank engaged consultants for the generation planning team. Further training by Brazilian PSR Suite is scheduled for the generation planning team to apprise them on the modern generation planning practices using the state of the art software. Additionally, trainings are arranged in collaboration with LUMS to enhance managerial skills of NTDC personnel. The Convener praised the efforts of NTDC for capacity building of their staff.

9. The MD, NTDC, informed about thorough revision of the Grid Code in view of radical changes with respect to technology and energy sources including, but not limited to, HVDC, renewable energy, etc. This initiative has been launched with the assistance of World Bank for which international consultants are being engaged for this purpose.

10. The Committee was informed that while deciding about clean energy, whatever the amount of RE to be added to the national grid, it has to be a step by step process keeping in view the system constraints and heavy investment in the grids to keep them stable. For this purpose, German model has been adopted after great deliberations. Now that the country is out of energy crisis, long term planning is focused around energy security that relies on indigenous solutions, cost effectiveness and, more importantly, local regional sentiments for energy mix from hydel, solar and wind for national cohesion. For the very purpose top of the line softwares – Plexos and OptGen generally having similar features with a few distinctions – are being tested. Trainings of all the stakeholders are underway on both the softwares.



11. Senator Nauman Wazir Khattak suggested that in order to take care of tripping and blackouts, spinning reserves needed to be in place. The Committee was informed that keeping in view all the factors including fluctuations in the system due to VRE, it was planned to take the RE mix to 20% by 2025.

12. The Committee was apprised about the role of AEDB in effective implementation of RE projects being pursued on IPP mode through private sector investors. It was told that till date 24 wind power projects of 1233MW cumulative capacity, 06 solar projects of 430MW cumulative capacity and 08 sugar mill based bagasse co-generation of 259MW capacity had become operational whereas one project of 74MW capacity was under construction. New RE Policy envisages an integrated approach through which the electricity will be sent to the national grid. The Committee was informed that new RE policy was expected to be announced by December 2019.

13. It was recommended that the AEDB should make a holistic and flexible RE policy by taking onboard all the stakeholders so that when and wherever any change or adjustment is required, it could be incorporated in the policy. It was recommended that AEDB should go for One Window Operation to facilitate the investors. On the issue of reservations of Sindh on RE Policy, the Sub-Committee sought a comprehensive response from AEDB.

14. The Convener stressed that DISCOS' Board composition should be made more vibrant with input from private sector. He expressed concern regarding the independence of directors in AEDB and assured that any constraints with regard to appointments of board members from private sector will be dealt with through legislation in AEDB Act, 2010.

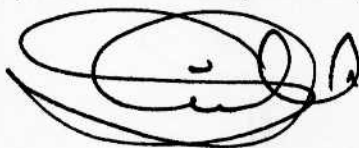
2nd Meeting

15. The 2nd meeting of the Sub-Committee was held on 31st January, 2020, at 3.00 p.m. in Committee Room No.1, Parliament House, Islamabad

16. The Sub-Committee noted that Rs. 229 billion had been shown by the Power Division as increase in revenue generation. Out of which Rs.117 billion were of tariff adjustment and Rs. 112 billion were from recoveries and increasing efficiencies. The concerned authorities were asked to explain precisely the breakdown of Rs.112 billion. Since the calculation shown in the slides did not match, therefore the Sub-Committee expressed its dissatisfaction over the unclear and ambiguous background of the figures given in the slides. The Sub-Committee was displeased to note that the Power Division was misguiding in this regard.

17. Senator Nauman Wazir Khattak stated that the Sub-Committee's main concern was the benchmark to be achieved by the end of this year and everyone including the Power Division wanted to end all line losses. He said that CEOs of the DISCOs increase the billing due to the pressure from the Power Division. To get a real picture of the state of affairs in the Power Sector, he directed the Power Division to give three figures; i) units sold; ii) units billed; and iii) units against which payment has been received. The Convener said that the difference between units sold and collected should be multiplied to see the actual figure. Senator Sirajul Haq besides supporting the view point of Senator Nauman Wazir Khattak, said that the consumers are being burdened to pay extra money for the technical faults in the power lines which was basically responsibility of the DISCOs.

18. As regards Circular Debt, the Convener was of the view that all the departments of the power sector are the culprits in value chain particularly, generation, transmission and distribution.



It was pointed out that, despite claim of the Power Division regarding bringing down the flow of Circular Debt to zero level by the end of year 2020, no significant improvement had been seen in DISCOs' figures and what had been stated by the Power Division seemed to be a window dressing exercise. Senator Nauman Wazir Khattak seconded the view point of the Convener and added that the improvement shown was actually the increase in billing. When the Power Division explained the slides pertaining to billing and recovery in terms of rupees, the Convener remarked that the figures shown have fuel price adjustment and other expenses embedded in them, which makes these figures deceptive and misleading. He once again asked the Power Division to provide breakdown of Rs.112 billion. He disappointingly said that due to the unpreparedness or reluctance on the part of the Power Division, a matter of grave importance, could not be finalized even in two meetings of the Sub-Committee and would be raised or taken up in the upcoming meetings of the main Committee. He took strong notice of the fact that during the last year, an estimated 20 billion units were lost due to theft and line losses.

19. Reservations were expressed on the claim of the Power Division that the flow of Circular Debt would be dropped to zero level by the end of this year at the current pace of improvement in the theft and line losses as recorded during the last one year. It was remarked that with the so called improvement at a speed of 0.61% per year, it would take 36 years for the Power Division to end Circular Debt.

20. The Sub-Committee opined that the Power Division was responsible for the state of affairs in the power sector. It was noted that the continuous soaring Circular Debt, presently Rs.1.7 trillion, reflects no benefit of planning and execution being done by the Power Division. The Sub-Committee was of the view that the consumers have been left with no option but to pay penalties in the form of extra charges for the inefficiencies and wrongdoing committed in the power sector. Stern action was suggested to be taken against the inefficient staff.

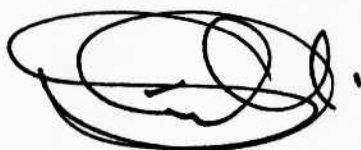
21. It was regrettably noticed that even the Managing Boards of the DISCOs had not been revamped. It was opined that NEPRA had failed to safeguard the consumers and might be under pressure benefitting the DISCOs by imposing quarterly tariff adjustment in the consumers' monthly bills. Therefore, it was urged upon NEPRA to play a proactive role in protecting the rights of the consumers.

22. It was recommended that data should be fed directly in the new software and not by hand as per present practice. It was noted with regret that the Power Division had not complied with the Committee's earlier recommendation for observing hourly tariff. Power Division was told that the only viable solution to eradicate the menace of power theft was outsourcing the distribution system.

23. The idea of the smart meters was vehemently rejected as it was no solution to the *kunda* malpractice. The Convener expressed apprehensions that the Power Division was being forced to take loan from Asian Development Bank for installation of smart meters. It was pointed out that the Committee had earlier provided details of Rs.40 billion extra payments received by the IPPs but no action had been taken by NEPRA and the Power Division.

Recommendations:

24. The Sub-Committee made the following recommendations:



- i. The AEDB should make a holistic and flexible RE policy by taking onboard all the stakeholders so that when and wherever any change or adjustment is required, it could be incorporated in the policy.
- ii. The AEDB should go for One Window Operation to facilitate the investors.
- iii. The AEDB to provide a comprehensive response to reservations of Sindh on RE Policy.
- iv. Power Division to give three figures; i) units sold; ii) units billed; and iii) units against which payment has been received
- v. Power Division to provide breakdown of Rs.112 billion.
- NEPRA was urged upon to play a proactive role in protecting the rights of the consumers.
- viii. The only viable solution to eradicate the menace of power theft was outsourcing the distribution system.
- ix. The data should be fed directly in the new software and not by hand as per present practice



(ABID/HUSSAIN)
Secretary Committee



(SENATOR SYED SHIBLI FARAZ)
Convener