

# CUTS Comments and Suggestions for Draft National Electricity Policy 2021

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With series of reforms in the pipeline for the electricity sector, the Union Government has decided to revise the National Electricity Policy 2005. It has issued a draft for the same and asked for suggestions and comments from the stakeholders. It has been more than 16 years since the revision of the policy. Though there are bits and pieces of sectoral changes reflected with government schemes and various regulations, the overall policy shift was long overdue in respect of dynamic changes in the country. With rapid changes in technology, global thrust on climate change such as 'net zero' concept, UN's effort on Sustainable Development Goals (SDGs), India needs a comprehensive electricity policy that is futuristic and adaptive to technological challenges and address the aspiration of a new generation.

CUTS believes that any policy should be framed for the long term to provide clarity to the investors and stakeholders, but at the same time, it should be flexible to comply with innovations, technology and global changes that are dynamic. Especially for sectors like electricity that are technology-driven, consumer facing and socio-economically crucial, it should not be rigid. It should have a window to address the inevitable challenges and demands timely intervention through policy directions.

In these 16 years, from 2005 to 2021, there have been myriad changes in the sector in terms of the generation mix, market development, infrastructure strengthening, operational processes, etc. Despite the changes, distribution is one area that is constantly a pain point for all stakeholders, with losses mounting. In this game, if there is a big loser in the picture, consumers, be it on the availability, accessibility and affordability front. The quality of power has not improved despite regular increments in tariff.

CUTS would like to place its observations (majorly from the consumer standpoint) before commenting briefly on the various aspects of the draft NEP.

- The draft NEP, though comprehensive, is very lengthy and verbose. It is running into several pages full of details that are not required. To prove a point, the historical background is covered in details that could have been avoided or put in separate addendum or annexure for the readers.
- The draft policy, while clearly laying out issues that it seeks to address, makes no mention to the root causes of those issues in the first place. There should be a clear acknowledgement of the root causes leading to certain challenges which the policy seeks to address. This forms part of the basic regulatory algorithm of designing policies that are sensitive to regulatory problems.

- The draft has references to various central schemes, amendments to acts and tariff policies, etc. While cross-referencing is provided for the readers' understanding, it gives an impression that there is a lack of synchronisation and harmony between these documents and sometimes becomes very confusing. The absence of clear demarcation of issues, for example, tariff and its treatment, should be provided exclusively in national tariff policy, but that is reflected in several other acts and amendments, making it more complex. This could have been avoided.

However, we believe that the final policy will be specific and crisp, highlighting the country's time-bound vision.

Please find below CUTS overall comments and suggestions in a tabulated format highlighting the specific provisions and rationale.

Sl No	Reference in the draft NEP	Draft NEP provisions	CUTS comments and suggestions and the rationale
1	Page 1, para 1.2	Section 3(3) of EA 2003 enables the Central Government to review or revise the NEP from time to time.	CUTS suggests that to make it more clear conceptually to stakeholders, there should be a provision of review and necessary amendments to NEP in at least three years on technological challenges and innovations in the sector that demand policy direction stakeholders. As investors and other stakeholders look for directions in the policy document, any mid-term corrections would help them make the right decisions at the right time.
2	Page 2, para 2.0	Aims and Objectives of NEP 2021	<p>CUTS believes that aims and objectives are evident, but there is a missing element (i.e.), the consumer.</p> <p>The consumer should find a place in the overall aims and objectives of this document. This is a significant element missing in policy documents. While the central focus is always on the end-users of any policy, its mention of the aims and objectives provides a clear direction to the industry to make, their strategy oriented towards customer satisfaction and focused towards service delivery.</p> <p>Hence, a separate point can be added to address affordable and quality electricity to all consumers, including rural and marginal consumers.</p>
3	Page no 3, Para 3.0	National Electricity Plan and its formulation by CEA. Para 3.1 says CEA	CUTS thinks that this exercise of power demand does not give an accurate picture of the aggregate demand of India as the data is primarily captured from state utilities that are

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		<p>should formulate short term and perspective plan for the development of an electricity system. Para 3.2 says about “Electric Power Survey” once in five years in consultation with state government and state utilities.</p>	<p>biased and do not capture the actual demand. The latent demand is completely missing from the planning. Also, short term plan formulated from CEA does not address the existing and upcoming challenges.</p> <p>With power market dynamics changing rapidly, private players taking centre stage in the generation, transmission and distribution sector, there is a need to evaluate the demand independently and without any bias by the third party by the CEA. This should be an integrated effort by CEA, state utilities, private players and independent agencies. The state utilities should go for periodic demand assessment each year and submit their report to authorities.</p> <p>CEA should start ‘discom surveys’ on the utilities power requirement, power procurement strategy, power demand assessment, etc.</p>
4	Page 4, para 5.2 to 5.5	<p>The draft NEP suggests that India should go for the hydro-based pump storage system, gas-based power plants to meet the country's peak demand. It also says about retrofitting old thermal plants for balancing and peak power solutions.</p>	<p>CUTS disagrees with draft NEP on peaking power solutions as proposed by draft NEP.</p> <p>India should move on. For peaking solution, large-scale hydro is a not a good idea looking at the current circumstances. Despite a push from the power ministry, there is hardly any large-scale hydropower in the last five years. There is visible public opposition to large-scale hydro due to its impact on the environment (recent disasters in Uttarakhand linked to hydropower plants), long gestation period and high construction cost.</p> <p>This should be dropped from the NEP and in fact, new technology based on renewable energy storage should be encouraged and prompted.</p> <p>Retrofitting of thermal power plants and gas plants is not necessary and going to be very difficult because of recent thrust on the environment and climate change, financial constraints.</p> <p>The issue of balancing capacity can only be met through storage solutions based on renewable energy. There are new technological developments on this front and this should be explored and given prominence through the NEP.</p>

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5	Page 5, para 5.6 to 5.9	This segment of the draft NEP says about thermal-based generation and how to improve power generation from this sector and focusses on supercritical plants, coal quality, fewer import alternatives and gas availability.	<p>CUTS believes that all these steps are necessary but should be limited to existing power plants, only those in operation. For coal-based power plants, there should be clear directions in the NEP. For thermal generation, NEP should take a clear, futuristic stand that confines to the current trend. For peaking requirements, efforts should be made to make existing gas-based units efficient and increase their capacity utilisation.</p> <p>This is high time we move out of this mess, at least in new thermal generation. Only those in the advanced stage of construction should get a go-ahead from the authorities. There should be no new thermal plants planned or announced. Efforts should be there to shelve the pipeline plants not yet in the construction stage with mutual discussion and proper compensation. MOP and other authorities should initiate the process.</p>
6	Para 5.10 to 5.18	This segment covers hydro generation.	It is high time not to pursue with large hydro. Despite having enormous potential and government efforts, there is no headway in this segment. It is better to come out with a specific policy regarding the small and medium hydro that is feasible.
7	Page 8,9 para 5.19 to 5.26	Renewable Energy Generation and Co-generation	<p>India is doing great in the renewable energy sector with adequate support and policy push, particularly in solar and wind. The only renewable sector that has not progressed well is the waste to energy (WTE) segment.</p> <p>There is a need to push through the WTE segment in India. This mainly targets the state's health and environmental concern and not necessarily for adding to the generation segment. As this problem is getting bigger by the day (shortage of landfills, methane gas from the waste and soil destruction), the NEP should make special provisions to promote the WTE for large-scale operations. To promote it, there should be a single centralised institution to study the waste, aggregate the capacity and bid centrally for the development of large-scale WTE power plant in co-ordination with state and the urban authorities.</p> <p>CUTS believes that renewable energy has enough support from the Centre and states in terms of must-run status, RPOs, RECs, etc. It is</p>

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			<p>high time they stand their own without any support from the authorities. Though, the government has now given further incentives through its PLI (production Linked Incentives) scheme to further add to the generating capacity of India.</p> <p>Point 5.23 says that providing HPO (Hydro Power Obligations) support to large hydropower generation is a bad idea and should be withdrawn from the policy statement. On account of RPOs, it is high time to let states decide their RE portfolios as renewable power is now cheaper than thermal power. There is a gradual shift from thermal to a renewable generation now.</p> <p>The concept of solar and non-solar RPO mandated to states should be removed and there should be a new mandate for purchase obligations for the WTE power.</p> <p>As we move towards storage solutions, there should be debate and discussions on faster adoption of the same along with R&amp;D support. The NEP should provide a time frame, say two-three years, for the same and come out with faster storage solutions. Even a concept on the same line of purchase obligation can be thought of for faster adoption.</p> <p>Though CUTS does not believe in any coercive strategies and advocates independent planning and strategies from the discoms, the financial state of discoms will not allow them to take any further financial burden. The centre should come out with a win-win proposition for faster adoption of such technology.</p>
8	Page 9,10 para 5.27 to 5.29	Draft NEP states about the microgrid and its application.	CUTS supports the draft NEP provisions for the micro grid. These systems are necessary to reach out to the marginal consumers who are deprived of electricity for ages. Islanding for areas prone to natural disasters is a good idea and mini and microgrids should be considered for such areas. The discoms should make these systems a part of their overall system and support it.
9	Page 10, Para 5.30 to 5.32	Draft NEP states about R&M (Renovation and Modernisation)	CUTS thinks that R&M practice should be done away with old thermal power plants that have completed their useful life. Current MOEFCC regulations and stringent norms for ECS

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			<p>installation will not make R&amp;M viable for thermal power plants for old units. In addition, coal as a fuel option for the future does not have many takers and financing institutions are hesitant in financing these units. With constant pressure from international institutions, it is becoming very difficult for their survival.</p> <p>In the case of hydropower plants with proper safety, R&amp;M is a good option. This also holds good with the repowering of old wind turbines that make sense.</p>
10	Page 11, Para 6.1 to 6.11	This section describes the transmission segment of the electricity	<p>CUTS believes that CEA should have an advisory and monitoring role in planning and executing the transmission system. A separate agency is required for better transmission planning, given the flexibility required in the system and proper coordination between separate entities.</p> <p>Along with this, the agency should create a national database of the transmission system networks, operational data, creating benchmark indices and proper monitoring. As the transmission system comes under national security, there is always a threat from the enemy countries that may hack the system. Therefore, it should be responsible for strengthening the system with attest technology and software so that any outside threats can be eliminated.</p> <p>Though competitive bidding is introduced for the transmission projects, private operators allege the interference of power grid personals in decision-making authority. To overcome this, there should be clear instructions on the non-interference of central transmission utility/power grid as they are also a competitor for the same.</p> <p>Competitive bidding under section 63, in a true sense, will provide the much-needed fillip to the sector, prices will be reflective of the cost, and ultimately tariff will be less for the customer. Section 62 under regulated tariff provision should be dropped from the policy document, as it does not merit.</p>
11	Page 13, Para 7.1 to 7.21	This section discusses the distribution segment in the drat NEP.	Para 7.1 to 7.5 says about various schemes and efforts undertaken by governments to provide electricity to various consumers, especially to the marginal consumers. No doubt, these

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		<p>Maximum paragraphs are attributed to this section describes the seriousness of this segment in the overall NEP. It remains a pain point in the system.</p>	<p>schemes yielded success in taking electricity to the last consumer. Hence, now the focus is shifted to provide them quality electricity at affordable rates.</p> <p>Para 7.6 talks about an interesting segment, that is, agriculture. Very often, discoms put all the blame on their agricultural consumers to fend off their responsibilities in reducing the losses. Feeder segregation for agriculture has proved to be a good step in metering and accounting for energy use. The PM-KUSUM scheme for solarising the pumps is getting a good response from all the stakeholders, especially targeting the subsidies.</p> <p>CUTS thinks PM-KUSUM should cover all agriculture pumps in a time-bound manner and separate solar-powered feeders to cover all grid-connected farmers. Rajasthan announced to have a separate discom for farmers. The details are not out yet, but in a sense, it is to connect farmers with separate solar feeders and accounting of the same.</p> <p>CUTS welcome a new Distribution System Operator (DSO) concept for creating network information and customer database.</p>
12	Para 7.7	<p>This segment deals with PPP in the electricity distribution sector and privatisation initiative</p>	<p>Though the PPP model is not new to the distribution segment, only a few models have been experimented with, like the distribution franchisee model that provided mixed results for the sector.</p> <p>Sub licensing model with separate carriage and content have been in discussion for long. Privatisation of discoms can be through various models. The PPP experience in other sectors such as road, aviation and telecom could provide various inputs for the retail competition in the sector. Various models can be applied to the distribution segment. Delhi model is also a successful model. The discoms can be identified, ranked, graded and put up for the privatisation process depending on several factors. Private investors want a long-term contract with operational independence and light regulations to take over discoms and make it profitable in a time-bound manner. For this to happen, major issues such as regulatory assets need to be</p>

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			<p>liquidated. The existing losses need to be addressed jointly with the state, utilities, centre and the private entities.</p> <p>Retail competition and consumer choices are needed, which should be the basis of privatisation of the discoms.</p>
13	Page 17, Para 8.1 to 8.8	<p>This segment of draft NEP deals with grid operation comprehensively. It speaks about grid imbalance due to large-scale intermittent RE addition to the grid, the role of ancillary services, demand response system, transfer capability of the grid, deviation settlement mechanisms due to exchange and real-time market operations etc.</p>	<p>Grid stability is of prime concern to the system operator. The issue of grid stability and its operation poses a significant risk due to the addition of Intermittent RE power. Thus, balancing will become a major issue.</p> <p>Discoms has to resort to a demand response system for handling this type of situation. This would require smart systems that would operate automatically when it detects any deviation. The role of the demand aggregator would become vital in this case.</p> <p>India is having some pilot interventions experimenting with such systems that require major scaling up. Also, large-scale storage systems and ancillary capacity development are two others solutions for maintaining grid stability.</p> <p>Without wasting any time, India should focus on investing in such systems to go hand in hand with the RE generation and penetration.</p>
14	Page 18, Para 9.1 to 9.4	<p>The draft NEP highlights power market development</p>	<p>CUTS welcomes the target set by the government for a spot market share of 25% by 2023-24.</p> <p>While the intention is clear, MOP needs to sort out the pending matter at the earliest. Creating a capacity market by setting free a considerable capacity from long-term PPA is the need of the hour. This will also help some discoms to increase their revenue.</p> <p>Derivative market is the next logical step for the Indian power market to increase the liquidity in the system. Term ahead RE market, pricing for ancillary services is the need of the hour.</p> <p>While all these developments find a place in the NEP, a timeline and responsibilities can be indicated for the NEP to monitor and execute progress.</p>



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15	Page 19, Para 10.1 to 10.3	Draft NEP dedicates this section to the Regulatory process. The objective clearly states a light-touch regulatory mechanism.	<p>CUTS is in agreement with the suggestions stated by the draft NEP on the regulatory process. We are also of the opinion that regulation should not act as a barrier to competition. Regulators should come out with such orders and directions so that procurement completely shifts to the competitive bidding and does not require regulators to intervene in tariff or price setting. The competition will take care of the right price setting and the market will balance itself from any anomalies. However, the regulator should act as a market monitor and do any surveillance required to set the process right.</p> <p>It should find ways to devise indexing, benchmarking, or create scientific formula-based systems so that any issues can be sorted accordingly, especially for the pass-through elements. For example, recently, CERC floated a paper for passing on the cost of ESP systems for a thermal power plant based on the “change in law” provisions for section 63 competitive bid projects. Based on the parameters developed, a formula can be devised to automatically pass on the cost without going through a lengthy process. Of course, exceptions are there where intervention is required.</p> <p>This would ensure regulator would oversee only compliance. The present system where there are many petitions filed to the regulator for almost every issues. Neither it has the system in place or required manpower and capacity to deal with. For contract-based disputes between parties, there should be another designated authority with strict timelines to deal with it, without any regulator's intervention.</p> <p>The missing element in this section is the role of the consumer in regulatory processes. There may be another section in this segment completely dedicated to the consumer.</p> <p>The role of a regulator is to involve consumers in their processes. This can only be done by making the process simple and reaching out to the consumer. Regulators should mandate and monitor that the discoms spend a portion of</p>

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			<p>their revenues for capacity building and consumer awareness. A regular public hearing should be done to assess the quality of power supply, service standards and consumer rights. Regulators should ensure that every process is simple, easy to access for the consumer and preferably in their local language.</p> <p>Light touch regulation: This provision deals with addressing the regulatory burden of ERCs while dealing with cumbersome tariff petitions and aims to benchmark certain costs for easier regulatory processes. While this is a welcome development, however, the case-to-case subjectivity and consumer-utility of such provisions must be examined in depth.</p> <p>This can be a case of misplaced solutions, as the challenge with the regulatory process is of the regulator's capacity and skill to deal with the regulatory processes. Benchmarking could mean short-circuiting the problem at the risk of providing no relief to consumers or the public at large.</p> <p>Instead of light-touch regulation, the policy should be focusing on "performance-based regulation" with innovative mechanisms like rewards, incentives on account of good consumer behavior, incentives on account of efficient DISCOM operations, incentives on account of environment-friendly operations, etc.</p>
16	Page 20, Para 11.1 to 11.6	This section is dedicated to R&D and new technologies. It has highlighted the application of IT, new technologies, smart grid systems, cybersecurity standards, special institutions for capacity building.	<p>CUTS would like to add that as there will be a workforce shortage, especially in data mining and data analytics in the energy sector, MOP should emphasise these issues with special institutions.</p> <p>There should be separate courses designed specifically for energy analytics and data mining. Government and private institutions are providing specific courses in- the power sector.</p> <p>Research and development have become sort of a notable mention and annexure-type of the section in most policies. This deals with scientific R&amp;D mostly. However, there is a great need for public policy research as well.</p> <p>CUTS suggest that there should be a separate</p>

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			<p>section on "policy research, monitoring and feedback," which can be dedicated to monitoring the progress of subsequent national electricity policies, the progress of achieving the intended objectives, challenges and counterintuitive consequences (if any) and suggestions for future policies and subsequent regulations/schemes. This can be done by empaneling think-tanks or empowering CERC/SERCs to undertake such policy research exercises with the support of Central/State Advisory Committee or other means.</p>
17	Page 20, Para 12.1	It highlights the power quality issue	<p>CUTS is in sync with the draft NEP that these parameters should be strictly monitored, proper monitoring and strict enforcement by the authority.</p> <p>The regulatory commission should take these issues seriously, as it directly affects the consumer starting from industries, commercial establishments to rural consumers.</p> <p>There should be a mandatory provision to capture the data in monthly format by the discoms and publish it regularly on their website for proper monitoring and actions. If the service quality is below the standards for a specific time, there should be a penalty on the discoms and proper compensation to the affected customers.</p>
18	Page 24, Para 17.1 to 17.5	This segment captured the new concept of EV and its charging infrastructure. It captures the impact of EV on the grid infrastructure and change in demand-supply position.	<p>It captures succinctly the major issues that require attention from the users, discoms and manufacturers.</p> <p>CUTS is of the opinion that the concept of G2V ( Grid to Vehicle) and V2G ( Vehicle to Grid) options could be explored in detail and suitable mechanisms put in place for the same.</p> <p>As the power demand will be huge for EV adoption, there will be demand overload. If it has to be from green alternatives, a renewable energy-based storage system will prioritise as night charging would be more than that of day charging.</p> <p>NEP should come out with several incentives and investment options for storage technologies. Any investment from discoms upon the same infrastructure should be allowed as a pass-through, a certain percentage of tariff should be</p>

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			marked for this purpose, and it should not be added to the regulatory assets.
19	Page 27, Para 19.1 to 19.3	The last section is dedicated to disaster risk reduction in the power system	<p>CUTS endorses the view that these disaster risk assessments should be done before commencing any construction. It should comply with standards of construction and other technical standards.</p> <p>It should be given top priority and should be developed with state's disaster management authority, especially for those prone to frequent cyclones, such as coastal states of Odisha, AP, Gujarat, etc.</p>

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