

Comments on Draft National Energy Policy

#	Section	Text of the Policy	Comment
1.	Chapter 2: Four key objectives	<i>2.1 There are four key objectives of our energy policy: Access at affordable prices, Improved security and Independence, Greater Sustainability and Economic Growth.</i>	<p>One of the Key objective of the energy policy has been mentioned as 'Access at affordable prices'. It should be redrafted as 'Access for all at affordable prices'.</p> <p>The per capita power consumption as projected by the Policy is in year 2040 is lower than even today's average per capita consumption of the world. Though the saving due to energy efficiency improvement measures will result in to 17% of reduction w.r.t. BAU case, still it seems to be much on lower side given the fast track development initiatives of the present government like make in India which has the potential to provide the growth in double digit. If the country is to prosper and come at par to the developed economy in 2040 (which almost 100 years from independence), the targets of per capita consumption must be taken higher and measures must be adopted to achieve the same.</p> <p>Further, Viability of Power assets should also be added in objectives. It is observed that most of the under construction & recently commissioned power projects are struggling in achieving viability due to non-availability of power tie-ups and fuel linkage resulting in continuous increase in NPAs. The Energy Policy should also focus on making all such projects economically viable by brining necessary policy supports for fuel tie-up & power offtakes.</p>
2.	Chapter 2: Four key objectives	<i>Clean cooking access</i>	<p>We are yet to provide clean cooking fuel to nearly 500 million people, which still depend on Biomass. NEP lays down many methods to achieve universal clean cooking coverage through multiple fuel options for cleaner fuel for Rural/Urban households, but the policy does not stress on thermal solar heating solutions; like solar cookers, solar water heaters etc.</p>
3.	Chapter 2: Four key objectives	<i>Intervention in the Agriculture Sector by laying enabling Infrastructure.</i>	<p>NEP talks about Laying sub-transmission infra for electrification of irrigation pumps including solar pumps and manufacturing facilities for efficient tractors. Such agricultural electrification should be supported by proper metering of each & every pumps so as to enable accounting of energy. This would enable reduction in distribution losses and</p>

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			hence will bring more efficiency in the system. The financial subsidies can be forward only to the vulnerable consumers/farmers through Direct Benefit transfer scheme (DBT).
4.	Chapter 3: Energy Demand	<i>Accounting of the Electrical Energy Consumption</i>	While NEP covers many relevant and necessary interventions required in the Energy Demand sector, it does not lay sufficient emphasis on the need of proper accounting of the energy, more specifically the electricity. Apart from use of most efficient appliances it is also important to have proper accounting/ metering system in place to tap on any misuse of electricity. Without proper accounting, our ultimate objective is to provide electricity at low prices cannot be met. Even the electricity consumption of the most vulnerable customers must be metered and accounted, however the subsidy should be transferred efficiently through DBT.
5.	Chapter 3: Energy Demand	<i>Grid Integration of Renewable Electricity</i>	Due to the variability and uncertainty of RE power CTU/STU will upgrade technologies. But this has to take into account that it may not be possible to reduce load below technical minimum. Also, the schedule variation of say more than 10% of capacity should not be allowed for more than 2 or 3 times in a day in case of thermal power plant.
6.	Chapter 3: Energy Demand Section 3.10. Institutional Arrangements	<i>3.10.7. In order to capture the levels of energy efficiency in the states and also motivate them to perform better by challenging them, NITI Aayog would establish an index of States by rating them across a range of energy efficiency related parameters.</i>	Designing and implementing an index of States on Energy Efficiency parameters is a positive idea. PFC already undertakes an Annual Integrated Rating exercise for Distribution Utilities. The Index on Energy Efficiency parameters can be linked with this Integrated Rating exercise to make the ratings more comprehensive.
7.	Chapter 4: Oil & Gas	<i>4.2. From 2005-06 to 2015-16, ... and, gas production remained static, though there was an upswing in gas consumption between 2009-12 due to gas supplies from KG D6 after which the production has been constantly declining, whereas the consumption increased by 38%.</i>	The upwards trend in Gas consumption is a clear indicator of the demand for Gas in the Country. But the decline in availability of Gas has meant that a lot of Gas based Power plants are suffering owing to lack of fuel availability. It should also be noted that the growing share of variable and intermittent RE power necessitates grid balancing and stabilization in coming 3-4 years. The Gas based plants, due to the quick ramp up & ramp down rates, are ideal candidates for stable grid operations.

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			<p>The entire gas based capacity is currently stranded/ operating at ~23% PLF. They are on the verge of turning Non Performing Asset and require government support to maintain the standard status. Thus, it is essential to identify viable options like gas pooling, bundling with RE power etc. for revival of these projects.</p> <p>Thus, some long term sustainable solution for revival of Gas based assets should also be designed in order to encourage cleaner power generation.</p>
8.	Chapter 4: Oil & Gas Section 4.5. Marketing	<i>4.5.5. With a view to promoting LNG uptake, the provisions of 'open access' and 'regulated tariff' in the PNGRB Act need to be extended to gas off-takers at the LNG terminals. The Government will issue necessary policy guidelines for the same.</i>	While the concept of Open Access is essential for the right of 'freedom to choose' for consumers, it should be implemented with some monitoring mechanism, to ensure that LNG also does not go the electricity way (where in-principle open access has been available, but on-ground open access usage is far less owing to restrictive actions Discoms, fearing loss of revenue).
9.	Chapter 5: Coal	<p>5.1. <i>The large planned new coal based thermal capacity is likely to put pressure on coal resources. Coal based power generation capacity of 125 GW in 2012 is likely to go up to more than 330-441 GW by 2040 (192 GW in FY 2017)</i></p> <p>5.2. <i>The share of coal in India's commercial primary energy supply was 55% in 2015-16 and is expected to remain high at 48-54% in 2040. ...</i></p> <p>5.3. <i>At present, CIL is making a yearly investment of nearly \$1 billion to augment capacity to meet the target of 1 billion tonnes of coal production by 2019.</i></p>	<p>The projections of coal based power generation capacity going up to 330-441 GW by 2040 are not in line with the projections of CEA (in its draft National Electricity Plan). CEA has stated that no further coal based plants are required till 2027 apart from the 50 GW of plants currently under construction. Even allowing for minor variations, this will bring the total to 240-260 GW by 2027.</p> <p>Further, a recent report by TERI makes two observations - the current installed and the under-construction coal based capacity of 50 GW will be able to meet the demand till about 2026, and that beyond 2023-24, new capacity additions could be all renewables.</p> <p>The projections in the draft Policy document for coal based power generation capacity going up to 330-441 GW, and the coal production targets for this need to be clarified.</p>
10.	Chapter 5: Coal Section 5.4. Production	<i>5.4.2. The issue of meeting full coal demand of the power plants with FSAs needs to be resolved so that these plants are able to receive their full</i>	This is again a very important point raised in the Policy. In order to achieve normative PLF, plants are forced to procure coal from alternate sources including imports, which is an expensive proposition.

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		<i>coal demand, and raise their PLFs. CIL will prioritise its allocation to these power plants.</i>	This not only adds to the financial hardship of distribution utility but also reduces the despatchability of power from these plants due to lower position in the Merit Order Despatch stack.
11.	Chapter 5: Coal	<i>Coal based power generation capacity</i>	Investment must be made in R&D for finding out the ways to mitigate the pollution related issues from Coal based thermal power plant. Envisaging the IGCC as the possible alternative in NEP is a welcome move, however the alignment of the policy and better risk and reward approach must be followed to promote investment in the technology.
12.	Chapter 6: Renewable Energy	<i>6.2. Therefore, the NEP proposes gradual withdrawal of the provisions of 'must-run' status and other supports such as non-levy of inter-State transmission charges..... 6.5.1. Capital subsidy needs to be phased out and feed-in tariffs ought to drive growth of Renewable Energy.</i>	The trend of aggressive reduction in bidding tariff of renewable power, and solar in particular, poses the question of viability of the upcoming capacities. The measures suggested here can lead to discovery of the actual viability of the solar projects, and would also lead to lowering the financial burden on the Discoms/ Government/ Funding Agencies.
13.	Chapter 6: Renewable Energy	<i>Large Hydro-power</i>	Though it is well acknowledged fact that the country is bestowed with vast hydro potential and that it is a renewable form of energy, there is very little being done for bringing the Hydro from its subdued position. All hydro projects irrespective of their size, need to be brought under Renewable energy category and extend all benefits applicable to that segment. For the hilly states of India, implementation of Hydro projects also improves the road infrastructure which is the backbone of the economy specifically for these hilly states. As per the current regulations, State Governments are to be provided 12% free power as royalty. In some States, this increases to 15%, 18% and even 30% over life of the project making the tariff unviable. As such royalty needs to be rationalized and brought down to not more than 5%. Hydropower Plants need to book transmission corridor through LTOA by paying CTU notified

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			<p>Transmission Charges irrespective of their actual utilization. Hydro Plants have normally 40-50% PLF compared to 80-90% in case of thermal. Thus, transmission charges for hydro becomes almost double the charges for thermal utilities.</p> <p>Proposal to make Hydro life from current 35 years to 60 years to increase the repayment tenure is a welcome move, however other incentives like -</p> <ul style="list-style-type: none"> • Tax incentives on purchase of hydro equipment • Tax moratorium for a period a period of around 10 years • Making available cheaper govt. funded loans.
14.	Chapter 6: Renewable Energy	<i>Micro grid - Renewable energy for Energy Access</i>	<p>NEP needs to consider that till this point of time no study has been made as to the viability of Grid v/s mini/micro grid in terms of which will be cheaper to provide.</p> <p>This assessment must be made across all rural areas. Also making micro/mini grids scalable and large enough so that financiers take an interest in them will provide the requisite financial push. (e.g. grids supporting 25 MW and above).</p>
15.	Chapter 6: Renewable Energy	<i>6.10. In order to counter the intermittency in supply of renewable energy, there needs to be a push towards integrating the same with gas based power plants and the development of storage technologies. Appropriate technology to introduce flexibility in coal-fired power plants will also be encouraged. However, looking to the stranded gas-based capacity, the Government will first endeavor to deploy these capacities. As the cost of wind/solar-based power has come down, blending the same with even LNG based balancing supply could be supported under the existing financial support schemes of SECI/ State Governments ...</i>	<p>As noted earlier, some long term sustainable solution for revival of Gas based assets should also be designed in order to encourage cleaner power generation.</p> <p>A recent study by KPMG has suggested multiple options for revival of gas-based generating capacity -</p> <ul style="list-style-type: none"> • Option-I: Direct Subsidy support from PSDF Scheme • Option-II: Domestic Gas Transfer from Vintage plants to Stranded plants • Option-III: Peaking tariffs • Option-IV: Support for absorbing the upcoming Renewable targets <p>The entire gas based capacity is currently stranded/ operating at ~23% PLF. They are on the verge of turning Non Performing Asset and require government support to maintain the standard status. Thus, it is essential to identify viable options like gas pooling, bundling with RE power etc. for revival of these projects.</p>

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16.	Chapter 8: Electricity	<i>Higher share of Electricity in the Energy Mix of the Country</i>	<p>Electricity being at only 17% share of our total energy sector, we should have a policy of boosting consumption -</p> <ul style="list-style-type: none"> • Electrification of railways which will boost consumption and conserve costly oil. • Introducing differential pricing in the day • Promoting the use of EV's for public transport • Tax incentives for solar roof tops etc. • Strengthening the distribution sector • Reducing AT&C losses • Going in for decentralized generation <p>We must target, much higher share of Electricity in the Energy mix given the very fact the electricity is the only form of energy which does not create any pollution at the point of consumption and the conversion efficiency to any other form of energy is maximum.</p> <p>The large coal reserves of India must be used to fuel the additional electricity demand due to higher adoption of electricity as source of energy.</p>
17.	Chapter 8: Electricity	<p>8.7.3. <i>Our eventual goal should be to bring down the cross subsidy from industry, placing the burden directly on the budget. This would contribute to making electricity-intensive businesses more competitive.</i></p> <p>8.8.7. <i>Cross subsidy from industry to other sources of demand and direct subsidies to certain segments have been widely deployed due to various pressures.</i></p>	<p>The discussion on cross-subsidy in the draft Policy and in the National Tariff Policy, 2016 are aligned – by saying that cross-subsidy needs to be eliminated.</p> <p>However, a concrete roadmap needs to be drawn up, and implemented (with provision for rigorous monitoring) in order to actually achieve this goal.</p>
18.	Chapter 9: Regulators	<p>9.6. <i>Indian energy market is now ready for several new regulatory interventions as listed below:</i></p> <ul style="list-style-type: none"> • <i>Separation of content and carriage in electricity,</i> 	<p>The separation of carriage & content is another step towards complete 'freedom to choose' for consumers. Multiple suppliers would provide higher quality of service to consumer. However, this separation of carriage & content needs to move on from conceptual stage, and be part the actual regulations.</p> <p>No doubt the segregation of carriage & content is essential for growth and evolution of the sector, but it is important to operationalize the policy</p>

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			appropriately too, by way of regulatory intervention and monitoring mechanisms.