

Comment on the Draft National Tariff Policy (dated 15.3.05) **By Prayas Pune, Energy Group**

This note consists of two sections. First section presents our overall comments on the issues arising out of combined framework of E Act 2003 and National Tariff policy. Second section presents comments on specific provisions of the draft National Tariff Policy.

Section A - Unfair framework emerging out of E Act combined with the NTP

The E Act framework says that, separation of costs is important to make sure that cross-subsidy is reduced and then eliminated. It is acknowledged that agricultural and some residential consumers receive sizable cross-subsidy in many states. But while correcting this, we should take care not to go overboard and on the other side.

Due to E Act provision, in a few years, all large consumers (large industry, railways etc.) will either opt for captive plants or quit DisCom by purchasing power using provisions of Open Access. Hence the distribution licensee would be left with only small (LT) industry, small commercial / residential and agricultural consumers. These (small) consumers would be captive to the licensee. And any cost put on the distribution licensee would be passed on to these consumers.

In this context, the tariff policy should clearly separate following type of costs and give separate treatment to them:

- (a) Cost of supplying electricity in case of normal and efficient operation of the system. This should assume reasonable T&D loss.
- (b) Cost of social responsibility, these include, promotion of Renewable (Non-conventional) energy sources, subsidized supplies to poor consumers (such as under 30 U/month), ensuring connection to all households, grid support for small decentralized generation, lower bulk tariff for rural suppliers (franchisees / non-licensee suppliers etc.)
- (c) Liabilities due to past inefficiency (which will take time to decrease). These include; cost arising out of cross-subsidy obligation, high ATC losses, high cost PPAs signed in the past, etc. These are akin to transition costs.
- (d) System stabilization / strengthening: these costs include addition of spinning reserve, strengthening of T lines, investment needed to meet the minimum supply quality standard etc.

These costs can be recovered from following sources. (1) Distribution licensees = small consumers (domestic, small commercial and LT industry, agriculture), (2) Open access consumers (large industry), (3) large consumers with captive generation, (4) direct / indirect central government subsidy, (5) direct / indirect subsidy from state government (6) financial restructuring. Points 4, 5, and 6 basically reflect the taxpayers' money.

Annex 1 list these costs, along with a ballpark estimate of the costs and also shows the beneficiary and the category of consumer that is expected to pay for these. It will be clear

from the analysis that the framework arising out of E Act combined with the proposed NTP is highly unfair to small consumers.

- (a) Cost of supplying power (at reasonable efficiency): The E Act specifies that cross-subsidy should be progressively reduced. To abide by this, the national tariff policy should mention that over a period of time, “all consumers are expected to pay the cost of supply of electricity assuming reasonably efficient service”. Hence, (a) should reflect the tariff of small consumers and all other costs should be separated.
- (b) Cost of social responsibility: This should be shared by ALL electricity consumers; in proportion to their consumption (after adjusting for state and central government subsidy). But as one can see from the Annex I, large costs of promoting NES, subsidy to poor users with consumption below 30 U/month and support to decentralized generation is passed on to the DisComs (i.e. small consumers). The tariff impact of this could be in the range of 8 % in case of Maharashtra. The cost of offering lower bulk tariff to rural suppliers is not considered in this, as it is expected to be paid by state government (as per the Rajiv Gandhi Village Electrification Scheme)
- (c) Past liabilities (Transition issues): Cost of past liabilities / inefficiency is an issue of transition finance. (i) Cross-subsidy: For various considerations, the Act has shielded the captive generators from contributing for cross-subsidy. The N tariff policy lays a principle for the cross-subsidy cess for industries availing open access. As shown in research paper by Mr. Daljit Singh (Visiting Fellow at Prayas), the tariff impact of this would be sizable on small consumers. This is already embedded in the structure of E Act (imperative of promoting open access and captive). (ii) Transition cost till ATC losses reduce: second and major cost of past inefficiency comes from higher ATC losses compared to the efficient operation of the utility. The draft NTP expects RC to pass on most of this cost to the small consumers (adjusting for state government subsidy and financial restructuring). (iii) Past arrears of SEBs: Here again, the tariff policy puts the full burden on licensee ARR, i.e. expects the small consumers to pay for this. (iv) Bad (high cost) PPAs: This cost is naturally passed on to the DisComs and hence to the small consumers. Except for the cross-subsidy, the remaining cost elements should be recovered from large industries also (irrespective of their source of electricity).
- (d) System stabilization: Here the cost of spinning reserve would be charged only to the small consumers; where as the benefit would go to all users connected to the grid. The cost is large (assuming a 5% reserve @ Rs 0.6 Cr/MW/yr), it amounts to about Paise 15-20/unit or Rs 6,000 Cr p.a. at the national level.

As seen above the tariff policy (and the embedded structure of E Act) is highly unfair to the small consumers, which are captive customers to the distribution companies. In other words, the logic of competition and removal of cross-subsidy is being applied in an unfair manner, against the small consumers. This is also highly risky, as the tariff hike applicable to small consumers would be too steep and politically unbearable.

Hence, we suggest that financial / tariff impact arising out of a) Social Responsibility, b) Past liability and c) System strengthening / stabilization should be worked out transparently and the same should be recovered from appropriate sections of the society.

*For example, the transition cost / past liability cost could be clearly identified by the state governments (with the help of SERCs) and along with sources to fund it to ensure **equitable sharing** such costs by all sections (irrespective of source of power). The large consumers (either with captive generation or OA consumers) could be charged in the form of public benefit charge (to include costs of social responsibility, system stabilization / strengthening, and transition costs / past liability costs – excluding the costs related to the cross-subsidy – which is expected to be recovered separately through a surcharge). Absence of such mechanism would imply burdening small / DisCom's captive consumers while allowing large consumers unfair benefits.*

Section B: Specific Suggestions for clarifications / modifications

- Section 5.1: One could interpret the last sentence as ‘for all cases – where developer is identified the cost of the power may be higher for the consumer and hence the RC should resort to tariff determination based on norms (capital cost).’ Just because SOMEONE has identified a developer, or it is an expansion project the cost may not be lower than competitive bidding. One can give several examples to support this. Hence, the provision should clearly put the responsibility on the regulator to check if the cost is really expected to be lower than the competitively bid projects. After due public process, the regulator should satisfy itself and give its reasoning / evidence at the time of approving the project and its costs.

It is extremely important that we do not allow a loophole that will allow perennial continuation of MoU based projects. This fear is justified considering that despite a decade since the first competitive bidding norms were issued by MoP, very few projects were taken up through competitive bidding.

- Section 5.2: The statement “multiple players will enhance the quality of service through competition.” can be meaningful only in case of parallel distribution license. We do not think it is correct even in that context (considering the other likely problems of second license). Hence, the statement should either be removed or made specific for parallel license (if MoP firmly believes in advantage of parallel license).
- Section 5.3 (b): It would be advisable to mention that this provision would be applicable to past investments by DISCOMS of GENCO. In case a licensee has equity more than 30%, all its new investments should be treated as being financed through debt, till the debt:equity ratio of 70:30 is achieved. There is little justification for perennially allowing high equity, especially when we are so short of capital.

- R&M: It is a good approach to decide R&M costs / improvement norms in advance. But several SERCs, may find it difficult to estimate the realistic R&M costs / benefits. (1) This may need advance help from CEA or like (in terms of setting some broad principles, station specific studies, database of past performance etc.). Public hearing may be insufficient. (2) Since the control period for MYT is five years, the norms would have to keep pace with improving technology. Lag in this would be compounded by the five year MYT period. (3) the information asymmetry would raise serious problems, unless the RC / CEA conducts required studies to determine the nature of R&M required. This would imply a substantial responsibility on RC / CEA. (4) the commission would have to make sure that the disincentive are strong enough that, in case, the money allocated for R&M is simply taken up as profit (or utilized for some other purposes), it would cause a net loss to the utility.
- Section 5.3, h (1,2): controlling utility investments. The policy rightly says that the RCs would decide the necessary investment for meeting minimum service quality, rather than depending on proposals from licensees. This is a desirable approach. But we also need to recognize the difficulties in adopting this approach right away. Some of the distribution companies are proposing very large investments in distribution – while hardly any commission has evolved expertise for evaluating the investment decisions.¹ In this context, a substantial hand-holding of RCs would be essential. A combination of data / experience of APDRP or the studies by CEA / CPRI as well as international comparison would be essential for this.

Also, as our ongoing study indicates, hardly any RC has done sufficient work on service quality. Few RCs have notified systematic process of collecting and reporting data on this topic, leave aside issue of crosschecking the reported data.

On this backdrop, we suggest that the policy should specify that over a period, after commissions have sufficient confidence / expertise, commissions may start concentrating on service quality and not on input cost elements. Irrespective of this, the RCs ought to validate if the reported investments are actually made, and are yielding expected benefits.

Apart from the above issue of capability of RCs to estimate investments for meeting specific service quality, enforcing monitoring and reporting service quality, there is another specific issue. Unless the fines on utility for not meeting required service quality are sizable, it would be difficult to prevent the utility from abdicating its responsibility of investing in the necessary network strengthening.

Hence, we need large fines, RC capability and systems to crosscheck validity of utility data, and quick enforcement of fines.

¹ One utility in Mumbai, proposed an investment of over Rs 1/ kWh (sales /yr), this was nearly 7 times the past trends. Two utilities in Delhi have proposed an investment that is about 15 times the investment estimated by studies done prior to reforms. To our knowledge, only one SERC has notified regulations to evaluate the proposed investments by the DisCom.

Policy should clarify that the taxes paid (or payable) should be treated as cost, and utility should provide a reconciliation statement. Taxes under dispute should not be treated as costs.

Generation:

RC should approve the demand forecasts by the utility. This needs be clearly stated (since this has not been stated in the Act)

The Tariff policy should state that in exceptional situations, if the RC finds that the utility has not rejected the tariff arrived at after competitive bidding, despite being too high (above market rate) has the authority to seek re-bidding. (Using inherent powers of the RC, it should be able to take action when the utility does not apply its mind)

6.2 (2) it should be clarified that the generation company cannot claim the money twice. In case of default by a DisCom, when the GenCo receives money by selling power to other buyers, this should be subtracted from the committed capacity charges payable to GenCo.

Section 6.3 Harnessing Captive Generation

After the introduction of Electricity Act 03 some SERCs have come out with detailed policy / orders related to captive plants. At times, SERC's have given excessively favorable treatment to captive. The tariff policy must prevent excessive concessions and unfair treatment to the DISCOMs.

The approach envisaged in the draft policy (i.e. section. 6.3 .1 and 6.3.2) is in the right direction. But to avoid confusion and misinterpretation inclusion of following aspects may be worth:

- Policy should specify that firm power purchase above a particular limit (say 15 MW) should always be through a competitive bidding process.
- DISCOM purchase of firm power below this limit as well as all in-firm power should be at the ABT rate.
- It would be desirable to have a separate para for wheeling and other charges. Also it is essential to specify that such charges and terms and conditions should be reasonable and fair for supplies as well as utility and it's consumers.
- The introductory para in section 6.3 is un-necessary, rather it may at times contradicts provisions in subsection 1 and 2 and likely to be mis-used / misinterpreted. We suggest that this para may be dropped.
- Unfortunately, though the Act defined captive plants as plants 'primarily' for self use, the interpretation of primarily is not clarified anywhere (either in Act or NEP). Certain SERC's have really stretched this definition and have effectively allowed plants with only 25 % self consumption² to be treated as captive plants with a freedom to sale remaining generation to DISCOM or third party consumers. Such interpretation clearly goes against the spirit of E. Act (self use).

² Under several situations such as planned expansion of factory, new captive plant, fall in production etc.

- To avoid such misuse, we suggest that the policy clearly spell out what is the meaning of ‘primarily’ for self use. We suggest that plants with self-consumption of at least 51 % should be considered as ‘captive plants’.
- Further, the policy should also specify that any direct sale of power from captive plants to consumers, would be subjected to all provisions of open access in terms of eligibility of consumers, wheeling and other charges, back-up / stand-by facilities, surcharges etc.

Non-conventional energy:

6.4 (1) MNES should notified the list of sources / technologies to be included in this category. For example, whether fossil fuel based co-gen should be included or size up to which small hydro projects should be included? In our opinion fossil fuel based co-gen should not be included, as its cost is much lower than the NES. The commission may either give separate targets for fossil co-gen or, in fact, one would expect co-generators to sell electricity in competitive market – having cost advantage. Hence, the promotion that would be necessary for the co-gen may be to ignore their in-firm nature, provided they are committing to inject a pre-decided MU.

6.4 (2) One of the SERC has asked competitive bidding to be carried out based on the PLF of the wind plant while pre-deciding the tariff. This is not the intent of the provision. Hence, the provision should clarify that – “Such procurement by the DisComs shall be done through competitive bidding process within (all) suppliers *to minimize the tariff impact on consumers* “

It is essential to plug loopholes to prevent the non-competitive purchases. In no case norm based tariff should be allowed. If there are no developers of NES, then the backlog could be covered in next bidding cycle or SERC could reset the targets. There is also an option of allowing NES generation from other states to compete.

As mentioned elsewhere the excess cost of NES should not be recovered **only** from small consumers.

Transmission

It is essential that the CTU / CERC takes the responsibility that the T line strengthening / new construction is done in a time bound manner, of say 2.5 years when a long term customer commits to use the line. The time should match with the time required to put up the generation plant. This would greatly enhance the competition in generation. This will substantially reduce a major barrier to competition. Prospective generators (anywhere in the country) would not be prevented from taking part in bidding due to lack of Transmission capacity at the time of bidding. This system is followed in the UK.

Distribution

8.1 (5) the draft NTP expects a large gap to arise due to adoption of “actual” performance in place of “desired” performance. It expects this to be filled through tariff increase, transition finance, and financial restructuring. This allows the large consumers to go scot-free. This is unfair for small consumers. This is discussed at length elsewhere.

8.1 (7) The transition period needed for meeting service quality standards should clearly separate categories of service that need large investment from others where only operation and management improvements are essential. The time period may be different for the two categories.

As mentioned elsewhere the penalties should be substantial enough to discourage diversion of investment from network improvement to other purposes.

Revenue Allowance and costs

8.2.1 (1) The import of this section is unclear (to us). If the ATC loss target is not met by the utility, then the utility should be responsible for the excess power purchase (and it should not be passed on to the consumers). Alternatively, if the power purchase is allowed as reasonable cost, then the expected revenue from sale of electricity should be based on ATC target and included in the ARR. Else there seems no way to enforce the ATC reduction targets.

It is valid that the consumers need 24 hours of power unless some consumers, (especially the subsidized consumers) are given interruptible tariff. But the statement, that all consumers should get 24 hours of supply, may be impractical in the near future, due to financial considerations. It can be part of direction / target etc. Over a period, it can be implemented using the ToD meters for all consumers.

8.2.1 (2) It is very true, that vigilant public groups can substantially improve the transparency and help RCs take appropriate role required as per their judiciary role. It is valid for private as well as public utilities.

8.2.1 (3) The Act mandates that state government should pay the subsidy in advance. Hence, there should be no situation when “utility could not charge the applicable tariffs” leading to uncovered gap. Hence the situation mentioned in the last sentence in the para is breach of Act and dereliction of duty on part of government, RC as well as utility. If at all this situation is to arise, the gap should be recovered from the same consumers that were supposed to pay the tariff (or were to benefit from that subsidy). Else, governments may announce subsidy for one category of consumers, not pay the same, and RC would be forced to recover it from all consumers through next ARR.

8.2.1 (4) Making a provision for the past arrears is a matter of transition finance and as mentioned earlier should not be burdened only on small customers.

8.3 Tariff Design

8.3 (1) the process of identifying people below poverty line has several problems (including large implementation issues). Here the issue is limited to electricity consumption of first 30 units. We strongly feel that the condition of poverty line should be removed; it would hardly make a dent in overall economics of the utility. It can be assumed (with decent accuracy) that all those who consumer below 30 U/month need the subsidy.

8.3 (3) There appears to be a contradiction in the paragraph. If one wants to protect ground water, higher tariff should be applied in areas where water table is lower. But the recommendation is otherwise. Instead, the variation in tariff should be left to the state government subsidy mechanism. And the policy may want to say that central and state government should jointly work on ways to improve the ground water table, using different mechanisms.

8.3 (5) Suggestion to add a new consumer category: As a part of transition mechanism, we strongly urge the ministry to mandate all SERCs to add a new category of consumer – called “limited use consumers”. In rural areas (and possibly urban slums) the consumers should be given an option to opt for a 40 W connection. The utility should limit the current drawn (using self closing load limitors) and provide efficient lights such as CFLs. The tariff for these customers should be limited to say Rs 20 per month (this should be linked to inflation).

This has several advantages: This will offer a cost effective option to all poor population. A large number of poor customers may actually opt for this. Workload as well as cost of metering / billing would be substantially reduced on the utility. The tampering of meters is probably easier than tampering of load-limitors (which could be sealed units without moving parts!). The lighting would be automatically efficient leading to a large social advantage.

8.4 Tariff components and their applicability

8.4 (2) If the PPAs are assigned to different DisComs so as to achieve same tariff across the state (based on initial conditions of ATC losses), then it would be unfair to the areas that have low starting losses! But the intent of the section can be achieved if we follow the separation of costs mentioned at the beginning of the comments. PPAs can be allocated to different DisComs such that the consumer tariff would be identical when the ATC loss and other efficiency parameters are at normative levels. The higher initial cost because of lower efficiency should be covered through transition finance.

8.4 (3) Having metered tariff attractive compared to flat tariff is essential. But to be effective even the state government subsidy should also given to uphold the spirit (i.e. state government subsidy should not distort this tariff signal). It would be worth mentioning this in the policy.

8.5 Cross-subsidy and Additional Surcharge for open access

8.5 (3) Required clarification: In an area where two parallel licensee are operating, and a new industry is setting up. But this customer does not belong to any of the licensee, and directly wants to tap power through open access. In this situation, we suggest, that the revenue from open access surcharge should be divided equally between the two utilities.

8.5 (6) For offering stand-by arrangement to a open access customer, the DisCom is allowed to charge either UI charges or the prevailing tariff to that customer category. It should be clarified that calculation of “higher of two” should be done for each 15 min interval as required in UI charges.

Addition Points

The key aspect to minimize the cost to consumers is to make sure that the power planning uses the full mix of options including peak load management, DSM etc. To achieve this the policy should mandate that SERCs should base capacity expansion decisions strictly on the basis of such Integrated Resource Plans. This is also essential to achieve the twin objectives of ensuring financial viability of utilities while reducing the cost to consumers.

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Annex I: Sharing of different Cost - as envisaged in draft Tariff Policy

No.	Cost head	Estimated impact	Cost born by
Social Responsibilities			
1	Promoting NES	~ Rs 200 Cr/yr MSEB #1	small consumers
2	Subsidy for users < 30 U/month	~ Rs 540 Cr/yr MSEB #2	small consumers
3	Extending the Grid in rural area	National - 15,000 Cr Investment	90% by Gol
4	Lower bulk tariff for Rural suppliers	Variable but sizable	State government
5	Grid support to de-centralised generation	Uncertain ... but limited	DISCOM - small...
Cost of Past liabilities / Transition issues			
1	Cross-subsidy	large	Small consumers + partly OA consumers
2	Transition cost till ATC losses come down	large + depends on restructuring plan	small consumers + transition finance + State subsidy
3	Past arrers of SEB	~ Rs 2,000 Cr MSEB	small consumers + transition finance + State subsidy
4	High cost PPAs	state wise variable	small consumers
System Stabilisation / Strengthening			
1	Spinning reserve	National - 6,000 Cr/yr #3	Small consumers
2	Distri. investments for min service quality		Small consumers
3	National Transmission strengthening		Proportion of T use

#1 Assuming 900 MW - based on MERC orders (@ 25% PLF, additional cost of Rs 1/u)

2 Assuming 1 crore users (@ 1.5 Rs/u, 30 U/month)

3 Assuming 5% capacity (on 200,000 MW) @ Rs 0.6 Cr/MW/yr