Comments in support of TL Sankar's "Towards a People's Plan for Power Sector Reform"

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I arrived in a village in Kolar District, Karnataka, on Vijayadasami day to be almost immediately bombarded by the universal complaint about the power situation – the lack of power for households from morning to night and for agricultural pumpsets trying to combat the severe drought. The next day I sought refuge in some reading material that I had brought with me. I started with the October 5 issue of EPW and TLS's article[1]. I had hardly finished reading the second paragraph when I realised that TLS's proposal for a People's Plan for Power Sector Reform was ***a conceptual and methodological break-through and an outstanding example of strategy and policy formulation based on creative analysis***. [I might add here that I have worked with TLS on energy issues since the NB Prasad Working Group on Energy Policy in 1978. I have always admired his intimate knowledge of the power sector and respected his institutional experience and insights. However, over the past few years, I have differed with his basically World Bank-patterned proposals that have had a major influence on the restructuring and reform of the power sector in Karnataka and other states.]

The quantum leap in his plan consisted of his recognition that power sector reforms were a failure because of "inadequate appreciation of the objectives of power sector reform". Hence, to get it right, TLS has adopted a normative goal-oriented approach with the objectives of availability, accessibility and affordability. Such an approach has led to a focus on two categories of electricity connections – poor households and irrigation pumpsets -- and a plan to energise all households and all pumpsets (up to the limits of groundwater potential). Incidentally, this part of the plan was also proposed in the DEFENDUS scenario for Karnataka published over a decade ago in EPW[2].

The two categories of end-uses/users are of course fundamentally different from an equity point of view – the domestic connections of the poor represent an underprivileged, politically powerless category in contrast to the pumpset owners who are a privileged politically powerful lobby. Nevertheless, the pumpsets are also identified presumably because their involvement is essential to successful reform and because irrigation has downstream benefits such as rural employment, food production, etc.

But what is new is that the focus on poor households and irrigation pumpsets is TLS's starting point for re-designing power sector reform. Even more radical is the fact that TLS's plan makes the satisfaction of the power needs of pumpsets and poor households (including the yet-unconnected ones) the central purpose of reforms.

This end-use/user orientation is the key to achieving the expansion of accessibility. It makes the People's Plan for Power Sector Reform a fundamentally different approach compared to mere incremental tinkering of the conventional World Bank-inspired

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framework. In this framework, pumpsets and poor households are the pariahs of the power sector to which the major financial problems of the sector are traced. By ignoring the needs of these pariahs, current World Bank-led reforms have become politically unviable and end up being unable to address even the financial problems that they set out to solve.

In fact, one can go further and argue that if goals of reforms are not explicitly stated, then the default/implicit goal is mere economic growth with accessibility and affordability being excluded from the agenda of reform. The focus therefore shifts to availability, which is why the whole emphasis in the first phase of power sector reforms was on supply expansion via the private (foreign) sector. It was hoped that the principal beneficiary would be industrial, commercial and service establishments. In contrast, if the goal is sustainable development – a process of economic growth that is oriented to the satisfaction of basic needs, starting with the needs of the neediest, the strengthening of self-reliance and environmental soundness -- then the emphasis turns naturally to TLS's objectives of accessibility and affordability to sustain which there has to be availability. It appears therefore that TLS's conceptual framework can be widened so that the objectives of availability, accessibility and affordability for power sector reform are offspring of the goal of sustainable development.

If TLS had rested his case with merely stressing the objectives of availability, accessibility and affordability, it would have been just a declaration of pious and altruistic intentions. It would have also been a repetition of the end-use oriented approach advocated over the past two decades amongst others by Goldemberg *et al*[3] as part of the new energy paradigm[4]. But TLS has forged ahead to outline an implementation plan for supplying the end-uses/users.

In doing so, he has come up with the brilliant device of partitioning the power sector. The current pattern of World Bank-led reforms harps on the importance of partitioning or unbundling the integrated power sector into separate generation, transmission and distribution entities. This pattern is being persisted with despite the deficiencies of unbundling thrown up by the California electricity crisis of 2001[5]. In contrast, TLS has maintained the integration of generation, transmission and distribution, but separated the so-called "fuel cycles" (for the flow of electricity from sources to end-uses) so that the fuel cycle for agricultural pumpsets and the domestic power needs of the poor is insulated from the fuel cycles for the other existing customers and for the emerging demand of the affluent consumer categories. In effect, he proposes a partitioning of the power sector into three separate power sectors sharing a common transmission system: (1) a power sector A consisting of those agricultural pumpsets and domestic connections of the poor that consume less than certain specified entitlements, (2) a power sector B for the above-entitlement agricultural pumpsets and domestic connections and all the other existing consumers and (3) a power sector C for emerging large demands.

A crucial part of this partitioning is the assignment of separate generation systems for each sector. But, this assignment is not random. The oldest and cheapest plants (hydel and some thermal for the balance) are dedicated to the below-entitlement agricultural pumpsets and domestic connections, the remaining plants for the above-entitlement agricultural pumpsets and domestic connections and for other existing consumers and the expensive yet-to-be built/completed plants are intended to meet the

emerging large demands. By sorting the generation in this manner and dedicating it to the end-users/uses as mentioned, the below-entitlement agricultural pumpsets and domestic end users/uses have the lowest average generation cost, the above-entitlement agricultural pumpsets and domestic connections and other existing consumers have the next highest average cost, and the emerging large demand has the highest and rising cost of new plants, in fact, the marginal cost. In effect, coining the word "demander" = one who/which demands, what is being proposed is a "demander pays principle" -- analogous to the "polluter pays principle" in environmental policy – so that those who exert small demands for power pay less than those who generate large demands.

In contrast, under the current pattern of reforms, the burden of increasing average cost due to the costly new plants is imposed on all the consumer categories including those with low marginal demand. But most important, the below-entitlement agricultural pumpsets and domestic end users/uses are insulated from the rising costs of the new plants. This cost unbundling is a major advantage of TLS's plan in comparison with a pooled generation system in which the average costs keep rising as new and costly plants come into the system. In addition, it is proposed that the affluent sector be encouraged to meet its requirements from private sector plants and/or captive generation sets and/or cogeneration with assurances of wheeling facilities.

Obviously, the success of TLS's plan hinges on agricultural pumpset owners agreeing to their consumption being metered and purchased in return for the assurance that their below-entitlement power will come from dedicated depreciated hydel sources for which there is no escalation cost and no fuel cost and that the tariff will be fixed for 10 years.

If this confidence is justified in real life – and my hunch is that TLS has done the preliminary reconnoitring in Andhra Pradesh -- then there is great deal of political mileage to be reaped by a political establishment that sponsors the implementation of TLS's plan. By winning over agricultural pumpsets owners, the principal source of opposition to power sector reform can not only be neutralised but also involved for support. Are there losers in Sankar's plan? There do not seem to be, for it is proposed that small industry and commercial establishments and large industry in Power Sector B get the rest of the available generation. And if there are establishments that want more power, they move into Power Sector C and choose their options from new generation plants, captive generation sets or cogeneration.

Another political gain would be universal home electrification which can be can be claimed as the fulfilment of Gandhiji's dream that electricity would be a boon to every home. Incidentally, this dream has been ignored by all electricity boards (which have implicitly assumed that village electrification means home electrification) and the political parties (even from the left!). Interestingly, the African National Congress in South Africa highlighted "Electricity for all!" as a goal for the power sector.

By offering hopes of immediate benefits ("before the next election") to crucial voter categories, TLS's plan may win over political decision-makers and thereby earn their support for its longer term vision. Unfortunately for these decision-

makers – but fortunately for the people – TLS's people's plan is implicitly a rejection of the World Bank model of power sector reform under implementation in various versions in the states via conditionalities. The bad news is that consultants have already been hired at enormous rates involving tens of crores and conventional reform plans have been or are being produced. These would become stranded investments and create the well-known management problem of repair (of the World Bank model of reform) or replace (with a people's plan).

The intra-village electrification of all households proposed through franchises is similar to the concession approach highlighted in the World Energy Assessment[6]. This approach has been tried in Argentina where there has been scepticism regarding its success[7]. But there it has been entrusted to agencies responsible for large areas in which case the concessionaire may find it more profitable to skim the cream from locations that are more profitable. In TLS's proposal, however, the franchise/concession is kept small, for example a village, to ensure dedicated supply and close attention to consumer needs. Its success, however, may depend on an "obligation to serve" being stipulated.

Whereas TLS's plan only envisages grid supply to the franchise/ concession, it is necessary to encourage decentralised local sources[8] (for example biomass-based systems such as biogas and producer gas) particularly for villages that have not yet been grid-connected. And even if they are grid-connected, decentralised rural generation, if more cost effective, can be established retaining the grid as a back up and earning credit for the saved grid electricity. This would enhance the strengthening of local self-reliance and empowerment (elements of which are present in TLS's plan) as a crucial component of sustainable development.

There are, however, some important issues that have to be tackled in the further elaboration and development of TLS's plan. The first issue concerns the place, if any, for integrated resource planning in the context of a partitioned power sector and the creation of several power sectors. It appears that in the case of Power Sectors A and B which are envisaged to operate with existing generation plants, integrated resource planning reduces to arriving at a least-cost mix of generation and saving options with the saved power being sold to higher-tariff paying consumers. Thus, integrated resource planning becomes really important for Power Sector C with its requirement of a mix of new plants, captive generation and cogeneration. In other words, the generic issue that deserves attention in the next iteration of TLS's plan is the role of decentralised renewable sources and of demand-side management in general, and efficiency improvements in particular.

Another issue that requires emphasis is the radical change in the role of the policy instrument of regulation and the institution of Electricity Regulatory Commissions. Today, it is hoped that they will salvage the public benefits of efficiency, accessibility and environment that are ravaged by the pursuit of reforms oriented solely to economic growth, rather than to sustainable development[9]. Instead, the new role will include, firstly, ushering in a people's plan and, secondly, contributing to the successful implementation of such a plan.

To demonstrate the feasibility of his people's plan, TLS has taken the case of Andhra Pradesh and provided *prima facie* calculations that show that a people's

plan is feasible and incidentally requires a lower subsidy from the government. But, is the Andhra Pradesh case a fluke and a fortuitous set of circumstances? The answer to that question will be known only after similar plans are made for other states. But a rough back-of-the-envelope exercise for Karnataka seems to suggest that a people's plan on the lines worked for AP would be as feasible. Karnataka too has a large hydel component – hitherto considered a major liability in power sector circles – as well as a large number of agricultural pumpsets accounting for a significant share of the electricity consumption and enjoying low tariffs.

In conclusion, it is heartening to note that the bureaucracy known to be the custodian and defender of conventional (often obsolete) paradigms can produce a person like TLS who can go back to the drawing board and propose a highly innovative and creative solution to what has seemed an intractable problem. It is also encouraging to note that the people's plan has been endogenously produced without foreign consultants. It only shows that the key to tackling major infrastructural problems is to start with the needs of the people and be committed to addressing them.

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