



STATES: TIME FOR TRYST WITH GREEN ENERGY

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After many years of dithering, India has in the recent past, created a reasonably favourable framework for development of renewables—both grid and off-grid. This includes legal, policy, procedural, fiscal, and regulatory measures. What is probably lacking is an overarching legal framework in the form of a Renewable Energy Law. Loopholes apart, well begun is half done. So overall, a positive environment is developing for accelerating the much needed transition to new energy technologies. However, much of the initiative till now has been at the central government level. It is high time for the action to now shift to the states. In fact, the states are where the action should be.



Power is a concurrent subject under our constitution—enabling both the centre and the states to take initiatives in the sector without waiting for either to begin. Not that the states are sitting idle. Some of the states like Tamil Nadu pioneered the development of renewables, Karnataka is now a close second, Rajasthan and Gujarat are racing ahead to catch up. What is lacking is a coherent orchestration of a green symphony to propel our states to sustainable development; and sustainable energy is the bedrock of sustainable development. To move towards sustainability, the states have to first set their houses in order.

Most state electricity utilities are in a financial mess. The accumulated losses of our state utilities have crossed ₹1.5 lakh crore. Much of the losses are on account of subsidised or free power to the agricultural sector. The consumers of this power are not people who deserve to be subsidised—a farmer with irrigated land cannot be called 'poor.' So free or subsidised power to the agricultural sector is misplaced populism at the cost of the state's electricity sector. If allowed to be run professionally, our state utilities have the capacity to be on their own. 'Public sector' is not a word of abuse and many of our public sector companies have proven their work. Some are even 'blue-chip' companies. So the states have only to blame themselves for the abysmal state of their electric utilities. Green power sources like solar may still be expensive, but they likely to reach grid parity in the next three years or so. The injection of solar power into the grid is currently very miniscule to have any significant impact on the average power procurement cost. So the states should now set their houses in order and begin the journey towards energy transition.

Besides the electricity utilities, there are many areas where the states need to focus their attention. First and foremost, the capacity of institutions in charge of facilitating the transition like state nodal agencies need to be strengthened in manifold ways. The special feature on Karnataka in this issue contains a separate write-up on this subject and hence I am not dwelling on the same here. Then there is the issue of providing the human resources required for this transition—outside the frame of the government. The states should galvanise the technical education sector to create adequately trained manpower to research, develop, manufacture, and manage these new technologies. The third and critical area is to sensitise the banking and financial

sectors to lend to these new technologies. It is agreed that they still have risk perceptions about technologies like solar power. But of late, they have realised that while conventional technologies may per se be 'mature', the fuel supply risks of these technologies are mounting. As a result, many new conventional power projects have landed in serious financial trouble and were declared 'non-performing assets' in the recent past. It is time to show the 'green' road to them; some of them have already started realising this. As regards safeguarding lending to new energy technologies, it is very often a question of choosing the right technology and structuring the project finance appropriately, since capital costs are falling and there are no fuel supply risks.

Besides these three critical areas, there are so many actions needed at the state level to bring in cohesion in policies and practices, confidence in government personnel, RE manufacturers, investors, and the public at large. These multifarious actions need to be initiated with full gusto, not because renewables can 'complement' the older technologies, but because renewables 'are the future' of the power sector. Current policies need to herald that future and this is not about sudden shutting down of conventional power; it is about engineering a smooth transition. It is not a question of just 'greening' the power sector, but it is about future energy security of the states. After all, the essence of policy making lies in envisioning the future.

The target of 15% grid power from renewable sources was declared in Govt. of India's National Action Plan on Climate Change (NAPCC). But not



just the states, even the central government has not set targets for capacity addition in tandem with this national goal. A detailed research study by WISE has shown that if this 15% target is to be achieved, RE capacity of average 80,000 MW will have to be established in the ten-year period from 2011 to 2020, taking the cumulative capacity to over 1,00,000 MW by 2020. The current targets are nowhere near these figures. On a flat average, we have to add about 8,000 MW of renewable power capacity every year from 2011 onwards. Doubts may persist whether this is achievable. The truth is that it is eminently possible. For example, figures gathered by WISE show that wind power is likely to register a quantum jump during FY 2011–12 by adding about 3,500 MW to the grid. Solar may be adding only 100 plus MW a year now, but going by the trend of competitive price cuts, in the next two to three years, it should be possible to step up solar power addition to 1,000 MW a year and then scale up by 20% per year. So the target is achievable, but needs a whole gamut of actions at both central and state levels. Since this article is discussing the states only, I would prefer to limit the list of critical actions to the state level as follows:

- Align state-level targets on a pro-rata basis with the national goals.
- Do a revised realistic RE resource assessment which is needed urgently; availability of such reliable data in the public domain to be ensured.
- Revise RE capacity addition plans at the state level and integrate them in the planning process.
- Bring out comprehensive renewable energy policies for states who have not yet revised their RE capacity addition plans.
- Strengthen state-level institutional mechanisms for RECs and activate the REC market.
- Urgently undertake comprehensive programmes for capacity building of State Nodal Agencies (State Energy Development Agencies).
- Set up state-level Clean Energy Funds, in states who haven't done so.
- Provide adequate manpower, coordinated curriculum revision, retraining of faculty and development of new courses in technical, educational and training institutions.
- Focus specifically on RE capacity addition in transmission planning.
- Tap central sources like finance commission grants and National Clean Energy Fund for state RE programmes.
- Expedite clearances for RE projects within prescribed time limits, though 'Single Window' clearance may not always be possible.
- Enable SERCs who have to declare renewable purchase obligations (RPOs) to do so in line with the NAPCC target.

While speaking of state and central electricity regulators, it should be acknowledged that they have taken many proactive actions to achieve the national goals. Some state regulators who have been lagging behind should now be goaded to join in. After all, it should not be forgotten that it was the California State Regulatory Commission and the California state government who pioneered the clean energy movement in the United States. They did not wait for the federal government to take the initiative. In fact, many states in the US initiated clean energy programmes when the federal government was succumbing to pressure from fossil fuel lobbies and dithering strong action. The states in the US have persuaded the federal government to act. As a result, the clean energy movement in the US is now gaining momentum. Europe has always been a pioneer and the EU is now racing towards 100% RE by 2050!

Besides the state level energy sector actions listed in this article, there has to be a holistic approach to planning in various allied departments. For example, the agricultural sector could look at schemes for irrigated pumps using alternative energy, now that costs are falling. The industries department could look at making captive power generation compulsory for high-end industrial consumers, while the Information Technology department could consider making it mandatory for software companies to use their large roof surfaces for solar power deployment, and the city corporations could impose similar norms for commercial buildings while giving building permission, etc. These are only some examples where action can start today in various allied sectors. Then there are futuristic sectors like sustainable transport where the planning process can incorporate a transition to hybrid and electric mobility. It is not just the transport people, but the electricity utilities also who need to be involved in creating the charging infrastructure. Here again the use of sustainable energy becomes relevant—from large generating systems to road-side solar parking stations. Only such a concerted and coherent planning can create a secure and sustainable energy future.

By creating the environment for this transition, the states can benefit financially and socially. Financial benefits could come from prudent utilisation of devolutions from the Central Finance Commission for RE development, tapping the National Clean Energy Fund, and taxes accruing from the growth of the sector. Social benefits could come from creation of lakhs of green and sustainable jobs, decentralisation of power generation, and consequent development of rural areas, etc. Beyond all this, the overarching concern needs to be future energy security. Given the volatility and long-term risks associated with the trodden path of energy generation, it would be prudent for the states to now think 'green'. It is time for the states to have their tryst with green energy.