COMMENTS ON DRAFT NATIONAL ELECTRICITY POLICY 2021

Navroz K. Dubash, Ashwini Swain, Sarada Prasanna Das, Parth Bhatia, Abhinav Sharma

(Comments are made in our personal capacity and are not institutional positions)

June 12, 2021
Big Picture

- NEP: An overdue update, but a welcome step
- Electricity at a critical juncture: Three Big Challenges
  - Transition to 21st century electricity – Inevitable if slow energy transition from coal to RE
  - Chronic 20th century electricity challenges – discom hangover
  - Electricity as key to an economic transformation – Aatmanirbhar Bharat, jobs, public finance

- Is NEP 2021 consistent with the scale of the three big challenges?
  - Why these objectives, and based on what diagnosis?
  - How will these 15 priorities lead to the objectives?

- Cross cutting issues
  - Financing
  - Human Resource capacity and skills
  - Data availability, credibility and transparency
Big Challenge 1: Shift from Coal to RE

- Ripple effects (big waves?) of the shift from big coal to RE
  - Investment pattern – potential to de-link from big capital
  - Regional implications for job creation
  - Public finances affected as both centre and state lose revenue

- Impact of electricity transition in interlinked sectors
  - Rise of EVs and broader integration of electricity and transport
  - Green building impact on demand and building and appliance integration
  - Electrification of industrial process

- Are RE capacity targets the right instrument? (450 GW RE by 2030)
  - Is the objective capacity or generation?
  - Capacity targets may introduce rigidities, especially at scales like 450GW
  - What are the trade-offs with jobs and manufacturing (China and South Africa examples)?

- Trade-offs with alternative pathways: centralised vs decentralised RE
  - Are we missing benefits of decentralised RE by over-focusing on centralised?
  - Who will benefit from cost reductions of lower-cost RE?
Big Challenge 2: Discom Hangover

- Financial, service quality and trust/credibility hangovers
  - Centre-led interventions have had limited success – one size does not fit all
  - Reliance on bail-out band-aids
  - Incentive structure has not changed
  - Mounting discom debt, affecting upstream entities and broader economy

- Time for a state-led approach? (Mapping Power)
  - New state-led and reform-linked result-based scheme is the right direction
  - More autonomy to states, more accountability

- Productive Power – Address means to pay
  - Facilitate income generating usage of electricity in rural areas
  - Shift away from consumption subsidy to one time productivity enhancing investment support for the poorest
  - Decentralised RE promotion for the poorest
Big Challenge 3: Electricity and Economic Transformation

- Multiple objectives of electricity policymaking
  - Jobs, competitiveness, livelihood creation, public finance, local environment, global environment...

- Electricity as if jobs mattered
  - RE incentive structures that go beyond capacity addition

- Toward an industrial policy approach
  - Technology and innovation, supply chains, raw materials and minerals, low-cost financing,
  - Regional distributive issues
### Linking objectives and intervention areas

<table>
<thead>
<tr>
<th>Areas</th>
<th>Energy Transition</th>
<th>Discom Reform</th>
<th>Economic Transformation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optimal generation mix</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transmission</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Distribution</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Grid operation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power markets</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulatory process</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R&amp;D and adoption of new technologies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Power quality</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Energy conservation &amp; energy efficiency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental issues</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skill building &amp; HR development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coordinated development</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Creation of EV charging infra</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Make in India &amp; Atmanirbhar Bharat</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disaster risk reduction</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>VISION FOR THE FUTURE</td>
<td>?</td>
<td>?</td>
<td>?</td>
</tr>
</tbody>
</table>
Area 1 – Generation: Misplaced Priorities

- Draft NEP suggests:
  - New coal-based generation capacity may still be required
  - Coal as cheapest source

- Facts:
  - Huge coal capacity glut (NPA, low PLF) & pipeline projects
  - Slow demand growth
  - RE + balancing costs competitive with new coal plants

- Our suggestions:
  - No new coal capacity addition; at least a mid-term embargo
  - Institutional process to explore accelerated retirement of inefficient and polluting coal plants
  - Consider demand side measures as low hanging balancing options
  - Guidance on acceleration of DRE promotion
Area 3 – Distribution: How to Revitalise

■ Draft NEP emphasises:
  - Technology-centric interventions (smart meters, feeder separation, etc.)
  - Privatisation/micro-privatisation and retail competition
  - DBT for subsidy disbursement

■ Facts:
  - Technology interventions have to be combined with an approach to shift incentives and politics
  - Private ownership is not a silver bullet; incentives are key
  - Retail competition: global track record is uneven; unclear if benefits are worth the costs
  - On ground complexities with DBT; identification of beneficiaries & credibility of the method

■ Our suggestions:
  - Productive power: Enhance consumers ability (and willingness) to pay
    ■ Promote income generating usage of electricity in rural areas
    ■ Switch from consumption subsidy to infrastructure subventions: Support the poorest to install DRE
  - State specific reform approaches - technology can be an enabler, less a driver
Area 6 – Regulation: Regulatory Process for 21st Century Electricity

- Draft NEP emphasises:
  - Light touch regulation
  - Focus on emerging challenges like market monitoring and surveillance, demand response, balancing and ensuring resource adequacy.

- Facts:
  - ERCs are operating under severe capacity constraints
  - Politically aligned appointments leads to strong political influence in regulatory process
  - Public participation as a tool for regulatory scrutiny has remained symbolic/checkbox
  - 21st century electricity system would require less (light touch) regulation, but greater role for regulators

- Our suggestions:
  - Need to build technical capacity of ERCs: in-house expertise, designated point persons
    - A regulatory cadre?
  - Strengthen the process of public participation
  - Revitalise Advisory Committee engagement
Area 12 - Coordinated Development

Draft NEP emphasises:
- Uniformity in the policies promoted by the Centre and states
- Role of Coordination Forum, Advisory Committee & FoR

Facts:
- Mapping Power:
  - Varied political economy of electricity in Indian states necessitates state-specific approach
  - Uniform approach to reforms resulted in varied outcomes in the states, even perverse results
- Improve Centre-state communication – existing structures tend to be one-way
- Guidelines on the new reform-linked result-based distribution scheme are in right direction, but tend to be menu-like
- Existing forums for coordination has weak influence on policy process

Our suggestions:
- A robust institutional structure for centre-state coordination on electricity policy & interventions
- Seek an agreement on shared goals, but states should be allowed to chart their path
  - Provisions for regular stocktaking, course correction and greater accountability from states
- Central assistance tailored to state fiscal capacity and potential to achieve the goals
Conclusions

- NEP at a historic moment in electricity sector
- Take on the bigger challenges, and link specific policy areas to a vision for those challenges
- Start building systematic links between electricity decision making and broader economic, financial and sectoral decision making