

ROUNDTABLE BRIEF

Transition Enigma

Public Sector Participation in Clean Energy Transition

September 29, 2023 | Jaipur, Rajasthan



INTRODUCTION

For more than four decades, public sector electricity generation companies (public sector Gencos) have played a critical role in powering India's social and economic development. Public sector built the very foundation of the nation's power sector, creating many technology and engineering milestones, while increasing the localisation of technology and building local capacities.

The energy landscape has evolved significantly over the last decade. Climate action, shifts in technology and finance, and increasing private sector participation have been some of the key drivers. Public sector electricity generation companies, a majority of which are deeply entrenched in coal, stand at a crossroads. Their direction shall define the degree of their significance in the future energy landscape of India and its respective states.

Sustenance of the public sector (state) Gencos may be considered critical for various reasons, including healthy competition, energy security, and the ability to undertake critical (or high-risk) investments. They carry immense institution knowledge and skill capital, supply-chain ecosystems and other capabilities that may leverage emerging opportunities in the domain of clean investments, create green jobs and accelerate the momentum of the energy transition. However, institutional transition is a complex and challenging process, intertwined with a highly complex governance landscape.

To deliberate on the matter, Rajasthan State Power Finance and Financial Services Corporation Ltd. (RSPF&FSC) and Centre for Energy, Environment and People (CEEP) organised a state-level roundtable on 'Transition Enigma: Public Sector Participation in Clean Energy Transition'. The convening facilitated experience sharing amongst Electricity Generating Companies from State and Centre Public Sector Undertakings who have embraced/embarked upon transition. This convening aimed to understand the drivers of transition at the firm level in different states, identify opportunities and instruments that may be leveraged for effective transition, and discuss risks or challenges in the transition journey.

The participants engaged in a comprehensive day-long discussion structured into three distinct sessions. The first session focused on the role and significance of public generating companies in facilitating the transition to clean energy. During the second session, participants explored the drivers propelling this transition and the associated risks, challenges, and future opportunities. The final session was dedicated to examining transition strategies at the organisational level, the array of available financial instruments, and the critical policy and regulatory support required. Prior to the commencement of each session, a survey was administered among the participants to elicit their perspectives on the topic, thereby capturing their organisation's current understanding and status. Annexure II provides a compilation of the responses collected from respondents in the pre-session surveys.

The roundtable conference was conducted under the Chatham House Rules, with 33 persons present at The Lalit Hotel in Jaipur on 29th September 2023. The agenda and the list of participants for the conference are provided in Annexure III and Annexure IV, respectively. Annexure I provides selected glimpses of the roundtable.

The subsequent section briefly overviews the roundtable's proceedings and highlights key discussion points.

ROUNDTABLE PROCEEDINGS

Inaugural Session

Rohit Gupta, Finance Secretary (Budget), delivered the opening remarks for the roundtable. He reflected on the necessity of forthcoming deliberations that promised insights into the role of transition, particularly concerning Public Sector Gencos (Public Gencos). He highlighted that within the Public Gencos, renewable energy constitutes a mere 5% of the portfolio, with coal still dominating the energy landscape for State Gencos.

Gupta posed various questions for deliberations of the participants that included deliberation on whether State GENCOs should transition, and if so, to what extent; driver of business strategy and choices; vision of State Gencos and their transition pathways; organisational barriers; and governance issues. He highlighted that while the challenges in public sector finances are critical, the advantages of a State Genco's proximity in policy-making were undeniable. The day's discussions were poised to shed light on these facets.

Followed by introductory remarks, Manideep Gudela, Research Fellow, Centre for Energy, Environment & People (CEEP), delivered a brief presentation to set the context of the discussion. He provided insights into the historical significance of Public Gencos, emphasising their pivotal role in capacity development, technological advancements, and maintaining grid stability. He delved into the implications of the historical trends, especially in terms of public sector involvement in renewable energy. The presentation concluded with a snapshot of the current participation of public sector entities in clean energy, showcasing their achievements and future plans.

Session I: Guardians of the Grid: Role of Public Electricity Generation Companies in the Clean Energy Future

The first session attempted to deliberate on whether Public Gencos should diversify and participate in the clean energy transition. The pre-session perception survey revealed an overwhelming consensus among participants who strongly endorsed the need and significance of Public Gencos in facilitating the transition. These companies were perceived to be well-prepared for the adoption of renewable energy (RE) and were expected to significantly expand their market share by 2030. The survey findings further highlighted that Solar and Pumped Storage Projects were the favoured choices for the deployment of renewable energy.

During the discussion, the participants acknowledged the importance of participation of Public Gencos in the transition and the need to diversify their business. Some participants, especially from the private sector, clearly expressed climate action discourse and external perception about the organisation as key drivers for transition. Representatives of Central Public Sector Gencos (CPSGs) also shared the views to some extent, identifying national policy and the demand from investors (especially international investors) as key drivers shaping their diversification pathway. Interestingly, demand from clients (Railways, for instance) for clean energy was highlighted as a major factor by another CPSG.

A few participants emphasised on increasing long-term risk associated with thermal investments and spoke in favour of diversification as being essential for Gencos to survive in the evolving market landscape. The role of Renewable Purchase Obligations (RPO) and Renewable Energy policies was also highlighted in the context.

Participants from both public and private Gencos shared key insights into the capabilities and resources required for energy transition. It was highlighted that there cannot be a uniform prescription for Gencos and transition roadmap of a state Genco shall depend on its balance sheet, socio-economic structure of the state, and state politics. However, State Public Sector Gencos (SPSGs) were seen as better equipped to navigate bureaucratic complexities at the state level, positioning them advantageously in ventures that require prolonged clearances and approval process. Representatives of Public Gencos emphasised collaborative efforts between CPSGs and state agencies (such as, MEDA) possessing substantial funds to address the financial challenges associated with energy transition. The participants also recognised the evolving preferences of their customer base and the need to respond to these. Participants from public Gencos highlighted the financial burden imposed by government stringent policy and regulations that delays decision-making, increases compliance, and significantly increases project costs.

The participants also deliberated on the potential effects of the energy transition on key aspects such as energy security, affordability, and grid resilience. Both private and public sector utility representatives seemed to unanimously agree on the essential role of coal in guaranteeing energy security and grid robustness. Furthermore, there was a shared sentiment of uncertainty among the participants regarding the affordability of energy storage solutions. This uncertainty stemmed from a lack of clarity regarding the assured return on investments in these technologies.

Session II: Transition Roadmap: Risks, Opportunities and Challenges

The second session explored the risks, opportunities and challenges associated with energy transition for Public Gencos. In the pre-session survey, the participants expressed mixed opinions on energy transition as a potential risk to the long-term sustainability of their organisation. The survey identified government policies and management as key drivers of the transition within the organisation. It also had a positive view on achieving net zero by 2070

and Gencos' preparedness in exploring new streams of finance, existing organisational capacity and dealing with legacy assets.

The challenges faced by Public Gencos were multifaceted. SPSGs, driven by significant government shareholding, encountered constraints in making long-term strategic decisions due to poor autonomy and reluctance within state governments to invest in renewable energy initiatives. Lack of access to low-cost financing was acknowledged as a significant roadblock. A participant advocated for coordinated lobbying efforts when seeking central government support and resources for transitioning. Others highlighted limited opportunities available for SPSGs within the state periphery since private players and CPSGs are able to develop projects in states like Rajasthan wherein cheaper land is available. The exemption of wheeling charges contributed significantly to the distortion of markets in this context.

The treatment of legacy assets was discussed for optimised pathways to energy transition. One perspective advocated by participants from Public Gencos was for repurposing old Thermal Power Plants (TPPs) through the integration of renewable energy. However, participants from the private sector expressed reservations about making changes to legacy assets as such assets reflect positively on the balance sheets. The need for a balance sheet that ensures good financial health for Gencos and equips them to transition with sufficient resilience was strongly recommended. Participants from think tanks also urged consideration of socio-economic parameters during decision-making on the treatment of legacy assets, including decommissioning.

The group also discussed necessary organisational changes. Academia, think tanks and private sector participants stressed the importance of adopting a broader perspective, encompassing profit and loss analysis and balance sheet impact when assessing financial risks. It was advised that the 'Board of Directors' that is better aligned with energy transition may be considered as a critical agenda as part of corporate governance reforms. To navigate the financial risks associated with transition, the setting up of dedicated risk management committees for public Gencos was advocated to assess financial implications and help Gencos make informed decisions. Private Gencos emphasise the need to develop a portfolio-based approach where a Genco has a diverse fuel mix in its power portfolio to mitigate risks and capitalise on various energy sources.

Session III: Corporate Governance: Reinventing, Restructuring and Financing

The third session explored tenets of corporate governance, and restructuring and financing essential for Public Gencos participation in the energy transition. In the pre-session survey, the participants responded that their organisations understood the risks and challenges of transition and had a comprehensive roadmap in place for the transition. The survey identified the Board/management of Genco as the key enabler of transition within the organisation as well as the presence of empowered leadership in the company. The respondents agreed to have a clear understanding of the treatment of legacy assets, governance & management plans and the regulatory environment needed to support their organisation's transition.

The discussions on corporate restructuring for energy transition presented diverse perspectives. Participants from think tanks emphasised the necessity of a financial carve-out of renewable assets during corporate restructuring. They emphasised that despite its complexity, the identification of assets should be transparent. However, some participants expressed the importance of exercising caution and clarity on objectives for organisational demergers. It was argued that unless demergers and asset carve-outs align with the public Gencos' ability to mobilise or raise capital effectively, such actions might lack utility and can be counter-productive. A private Genco representative shared their positive experience with asset carve-outs. They highlighted their enhanced ability to leverage their strong balance sheets for the new entity and the multiplier impact on their ability to raise capital for clean energy investments. Public sector participants concurred with these statements. One participant from a public Genco expressed disapproval of asset carve-outs, citing concerns about loss of control over subsidiaries, presenting some of the unique challenges for SPSGs.

Discussions on corporate financing for energy transition included members from banking institutions in addition to the existing group of participants. They highlighted that private Gencos often raise green bonds from overseas market. The domestic green bonds market does not offer negligible premium, if any. Participants highlighted that domestic markets are a primary source of financing for the public Gencos, and they have limited access to international funding sources, expressing disparities in the availability of funding avenues for clean energy transition. Representatives from the public sector raised concerns about the lack of international financing for critical projects, such as pollution control in existing coal-based power plants. As discussed earlier in this session, asset carve-outs and demergers were seen as opportunities to raise clean capital, fundamentally transforming the nature of the organisation. Lenders were expected to perceive such entities on a definitive growth trajectory.

Varied views of manpower management strategies for public Gencos were deliberated by the participants. A participant from the public sector raised concerns about employees being hesitant to move to new entities or subsidiaries. This hesitancy was attributed to issues related to different compensation and benefits in the new entity, such as variance in performance-related pay (linked to profit before tax) and House Rent Allowance (HRA). Another participant from the public sector provided a counterpoint, stating that their firm did not report any such issue, and it was brought to notice that employees often prefer moving to renewable energy plants due to better location and environment. Despite observing a trend of people moving towards the renewable energy sectors, there was strong consensus on the challenges of attracting talent. As a final remark, participants from think tanks and academia emphasised the importance of understanding personnel issues from the employees' perspective, considering their potential and aspirations up to retirement.

ANNEXURE I: GLIMPSES OF THE ROUNDTABLE DISCUSSION



ANNEXURE II: PRE-SESSION SURVEY FINDINGS

Pre-Session Survey 1: Guardians of the Grid: Role of Public Electricity Generation Companies in the Clean Energy Future

1. You are (0 point)

Public Sector Utility	13
Private Sector Utility	4
Other	5



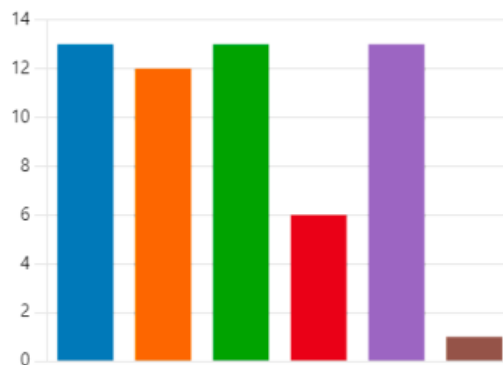
2. Should Public Sector Utilities participate in Clean Energy Transition? (0 point)

Strongly Disagree	1
Disagree	0
Neutral	0
Agree	5
Strongly Agree	16



3. Why should Public Sector Utilities participate in Clean Energy Transition? (Select Maximum 3) (0 point)

Competition	13
Affordability	12
Energy Security	13
Livelihoods	6
Accelerated Transition	13
Others	1



4. By 2030, do you expect market share of public sector utilities within the State to (0 point)

Increase	15
Remain the same	4
Decrease	3



5. The state will be prepared to deal with the intermittency of renewable energy and increasing demand complexity in 2030

(0 point)

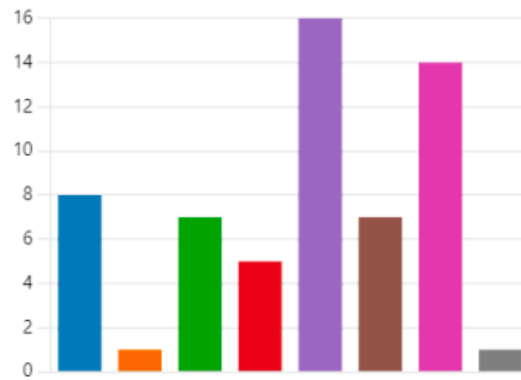
● Strongly Disagree	0
● Disagree	2
● Neutral	4
● Agree	12
● Strongly Agree	4



6. What should be the priority areas for investment by public sector utilities in the medium term (next 5 years)? (Select maximum of 3)

(0 point)

● Thermal (Coal)	8
● Thermal (Gas)	1
● Nuclear Energy	7
● Large Hydro Power	5
● Wind & Solar	16
● Battery Energy Storage	7
● Pumped Hydro	14
● Other(s)	1



Pre-Session Survey 2: Transition Roadmap: Risks, Opportunities and Challenges

1. You are (0 point)

Public Sector Utility	11
Private Sector Utility	3
Other	5



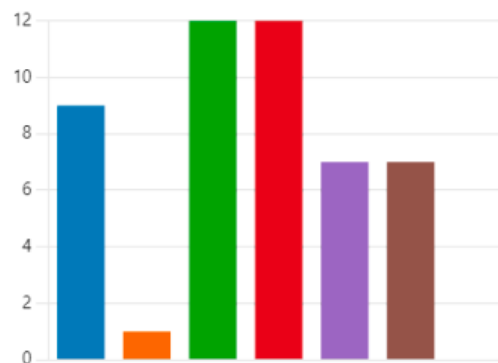
2. Do you think energy transition is a potential risk to long-term sustainability of your organization? (0 point)

Strongly Disagree	5
Disagree	6
Neutral	1
Agree	6
Strongly Agree	1



3. What are the drivers of Energy Transition in your organization? (Select maximum 3) (0 point)

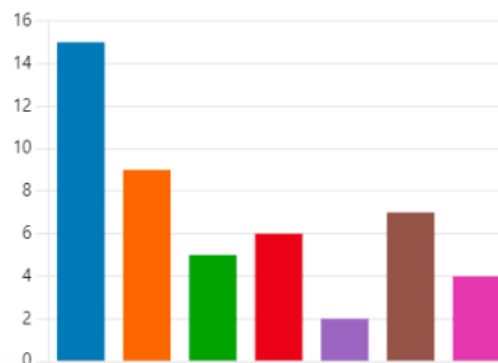
Board of Directors	9
Executive Management	1
Business Opportunities	12
Central Policy	12
State Policy	7
Grants and Incentives including ...	7
Other(s)	0



4. Which stakeholders are most cautious and concerned about the energy transition? (Select Maximum 3)

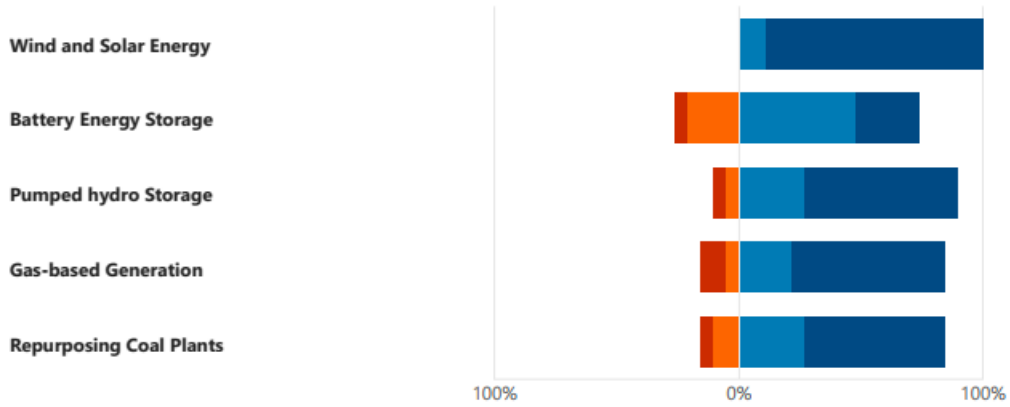
(0 point)

Board of Directors	15
Executive Management	9
Middle Management	5
Firm's Technical Workforce	6
Contractual Workforce	2
Vendors and Service Providers	7
Allied Industries	4



5. Rate your organization's capability to develop non-fossil fuel-based projects? (0 point)

■ No Capability ■ Poor Capability ■ Can Manage ■ Competent



6. Does your organization have a plan to deal with legacy assets? (0 point)

● Yes 12
 ● No 1
 ● Unsure 6



7. Is your organization prepared to leverage emerging opportunities for project finance (including green finance and climate finance)? (0 point)

● Well prepared 10
 ● Somewhat Prepared 9
 ● Not prepared 0



8. Do you think Net-zero (2070) is possible? (0 point)

● Strongly Disagree 0
 ● Disagree 3
 ● Neutral 0
 ● Agree 11
 ● Strongly Agree 5



Pre-Session Survey 3: Corporate Governance: Reinventing, Restructuring and Financing

1. You are (0 point)

Public Sector Utility	10
Private Sector Utility	3
Other	4



2. Your firm understands transition risks and opportunities. (0 point)

Strongly Disagree	0
Disagree	0
Neutral	2
Agree	8
Strongly Agree	7



3. Your firm has a comprehensive transition roadmap in place. (0 point)

Strongly Disagree	0
Disagree	0
Neutral	2
Agree	7
Strongly Agree	8



4. Who 'owns' energy transition in your company? (Select All that apply) (0 point)

The Board	13
CEO	9
Senior Management	5
HSE Department	2
No one	0



5. You understand the risk from potentially stranded fossil fuel assets and the opportunities from investment in renewable energy.

(0 point)

● Strongly Disagree	0
● Disagree	0
● Neutral	2
● Agree	13
● Strongly Agree	2



6. Your governance and management principles are well-aligned to navigate transition risks and leverage opportunities.

(0 point)

● Strongly Disagree	0
● Disagree	0
● Neutral	3
● Agree	11
● Strongly Agree	3



7. Your firm has a clear view of the regulatory environment needed to support its transition and business model transformation strategy.

(0 point)

● Strongly Disagree	0
● Disagree	0
● Neutral	1
● Agree	12
● Strongly Agree	4



8. Your firms has dedicated and empowered leadership to explore new-energy business opportunities.

(0 point)

● Strongly Disagree	0
● Disagree	0
● Neutral	3
● Agree	6
● Strongly Agree	8



ANNEXURE III: AGENDA OF THE ROUNDTABLE

0930 – 1000 hrs	Registration
1000 – 1010 hrs	Introduction Simran Grover Centre for Energy, Environment & People
1010 – 1025 hrs	Opening Remarks (Keynote Speaker) Rohit Gupta Secretary to Government, Finance (Budget) Department, Rajasthan
1025 – 1045 hrs	Context Setting Manideep Gudela Centre for Energy, Environment & People
1045 – 1100 hrs	Special Remarks Sh. R K Sharma Chairman and Managing Director, RRVUNL
1100 – 1115 hrs	Tea Break
1115 – 1315 hrs	<u>Session I: Guardians of the Grid: Role of Public Electricity Generation Companies in the Clean Energy Future</u> Moderator: Simran Grover Centre for Energy, Environment & People <ul style="list-style-type: none"><input type="checkbox"/> Setting the context<input type="checkbox"/> Why should public Gencos transition?<input type="checkbox"/> What capabilities, knowledge and resources can public Gencos offer for energy transition?<input type="checkbox"/> What would be the impact on power markets without public presence?<input type="checkbox"/> Are there any implications on energy security, affordability and resilience?
1315 – 1400 hrs	Lunch Break
1400 – 1415 hrs	Special Remarks Sh. Bhaskar Sawant Secretary to Government, Energy Department
1415 – 1545 hrs	<u>Session II: Transition Roadmap: Risks, Opportunities and Challenges</u> Moderator: Runa Sarkar Centre for Development and Environment Policy, IIM Calcutta <ul style="list-style-type: none"><input type="checkbox"/> Setting the context<input type="checkbox"/> What are the drivers of energy transition for state Gencos?<input type="checkbox"/> Weighing the risks: Business As Usual v/s Transition<input type="checkbox"/> Emerging business opportunities - RE and beyond<input type="checkbox"/> Challenges: Political/Governance/Capabilities/Supply Chain/Human Resources<input type="checkbox"/> Gencos' position on the treatment of legacy assets
1545 – 1600 hrs	Tea Break

1600 – 1615 hrs

Special Remarks

Sh. Akhil Arora | Addl. Chief Secretary (Finance), Govt. of Rajasthan

Session III: Corporate Governance: Reinventing, Restructuring and Financing

Moderator: Anshuman Gothwal | Centre for Energy, Environment & People

1615 – 1745 hrs

- Setting the context
- Transition Readiness- Vision and Barriers in regards to strategy and availability of human capital at different firm levels
- Financial health for transition pathways
- Financial Instruments (Green finance, bonds, etc.) and role of ESG
- Policy and Regulatory Support

1745 – 1800 hrs

Reflections of the day and Event Closing

ANNEXURE IV: LIST OF PARTICIPANTS

S.No.	Name	Designation	Organisation
1	Abhishek Kumar	Partner	Indicc Associates
2	Adishesu Gopalan	Chief Operating Officer (Projects)	Greenko Group
3	Amitabh Jha	GM (Electrical)	NHPC
4	Anil Shrivastava	GM	NTPC Green Energy
5	Anshuman Gothwal	Co-Founder & Director Programs	CEEP
6	D K Jain	Addl CE (R&M)	MP Genco
7	D K Sharma	Director – Technical	RRECL (Rajasthan)
8	Devendra Shringi	Director – Technical	RVUNL (Rajasthan)
9	Dinesh Kumar Singh	Sr. GM (Electrical), Renewable Energy & Energy Efficiency	Damodar Valley Corporation
10	Gautam Gaur	Head Corporate Advisory, VP	HDFC Bank
11	Himanshu Khurana	Director – Technical	RERC (Rajasthan)
12	Kaushik Sanyal	National Head, Renewables	Tata Power
13	Manideep Gudela	Research Fellow	CEEP
14	Manoj Kumar Tanwar	Sr. Vice President – Commercial	Greenko Group
15	Mritiunjoy Mohanty	Professor, Economics	CDEP, IIM Calcutta
16	Mukesh Kumar Meena	Deputy General Manager	NHPC
17	Pawan Jaiman	Joint Secretary (W & M)	Finance Department, GoR
18	Pramod Kulkarni	Dean	NTPC Business Scschool
19	Prasanna Kotecha	Chief Engineer (RCD)	MahaGenco
20	R Gopichandran	Professor	NTPC Business Scschool
21	R K Sharma	Chairman & Managing Director	RVUNL (Rajasthan)
22	Rajeev Agarwal	AGM	NTPC Green Energy
23	R K Soral	Chairman & Managing Director	RVUNL (Rajasthan)
24	Rohit Gupta, IAS	Finance Secretary (Budget), GoR and MD, RSPF&FSCL	Finance Department, GoR
25	Runa Sarkar	Professor, Economics	CDEP, IIM Calcutta
26	Saarthak Khurana	Manager	CPI Global
27	Sahebrao Nikalje	Dy. EE (RCD) and MERC Coordinator	MahaGenco
28	Saroj Chelluri	Retd. GM	NTPC
29	Simran Grover	Founder & CEO	CEEP
30	Swasti Raizada	Senior Policy Advisor	IISD
31	V P Raja, IAS Retd.	Ex-Chairman	MERC
32	Venkateswarlu Ande	Vice President	Greenko Group
33	Vijay Prakash	Chief GM	NTPC