



विद्युत मंत्रालय
MINISTRY OF
POWER



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REC

असीमित ऊर्जा, अनन्त संभावनाएँ
Endless energy. Infinite possibilities.
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POWERTHON 2024

Enabling Advance Technologies in Power Distribution

Incubating Startups

Enabling Advanced Technologies

Power Distribution Sector

Power Distribution Sector outlook

The power distribution sector has progressed significantly over the last decade with various measures introduced by Ministry of Power, Government of India.

Key Infrastructure,
Operational & Financial
turnaround schemes



RAPDRP, IPDS,
DDUGJY, Saubhagya,
UDAY, RDSS



Distribution
Infrastructure addition,
last mile connectivity,
Smart Metering

The Revamped Distribution Sector Scheme (RDSS) - Also entails exploring advance technology intervention areas, leveraging Artificial Intelligence, IoT devices, Blockchain / Big Data / ML

Power distribution sector in India continues to face numerous challenges

- Large number of dispersed electricity consumers ~34 Crore
- Complex and dense electricity network infrastructure
- Financial sustainability of DISCOMs
- Limited adoption of automation and advanced technologies
- Lack of a dedicated infrastructure & ecosystem for adoption of advanced technologies

Overcoming the challenges in Power Distribution sector by adopting advanced technologies and creating model for sustainable innovation

Power Distribution Focused

Powerthon-2022

Powerthon-2022 launched in Feb 2022 to identify technology driven solutions for DISCOMs challenges



Powerthon-2024

Powerthon-2024 launched on 12th November 2024 to establish sustainable model for incubating Startups in power distribution

Key learnings and outcomes of the Powerthon-2022

The powerthon-2022 was concluded with the identification of top 3 solutions for scaleup across some DISCOMs



33 POCs completed

17 Pilot projects completed

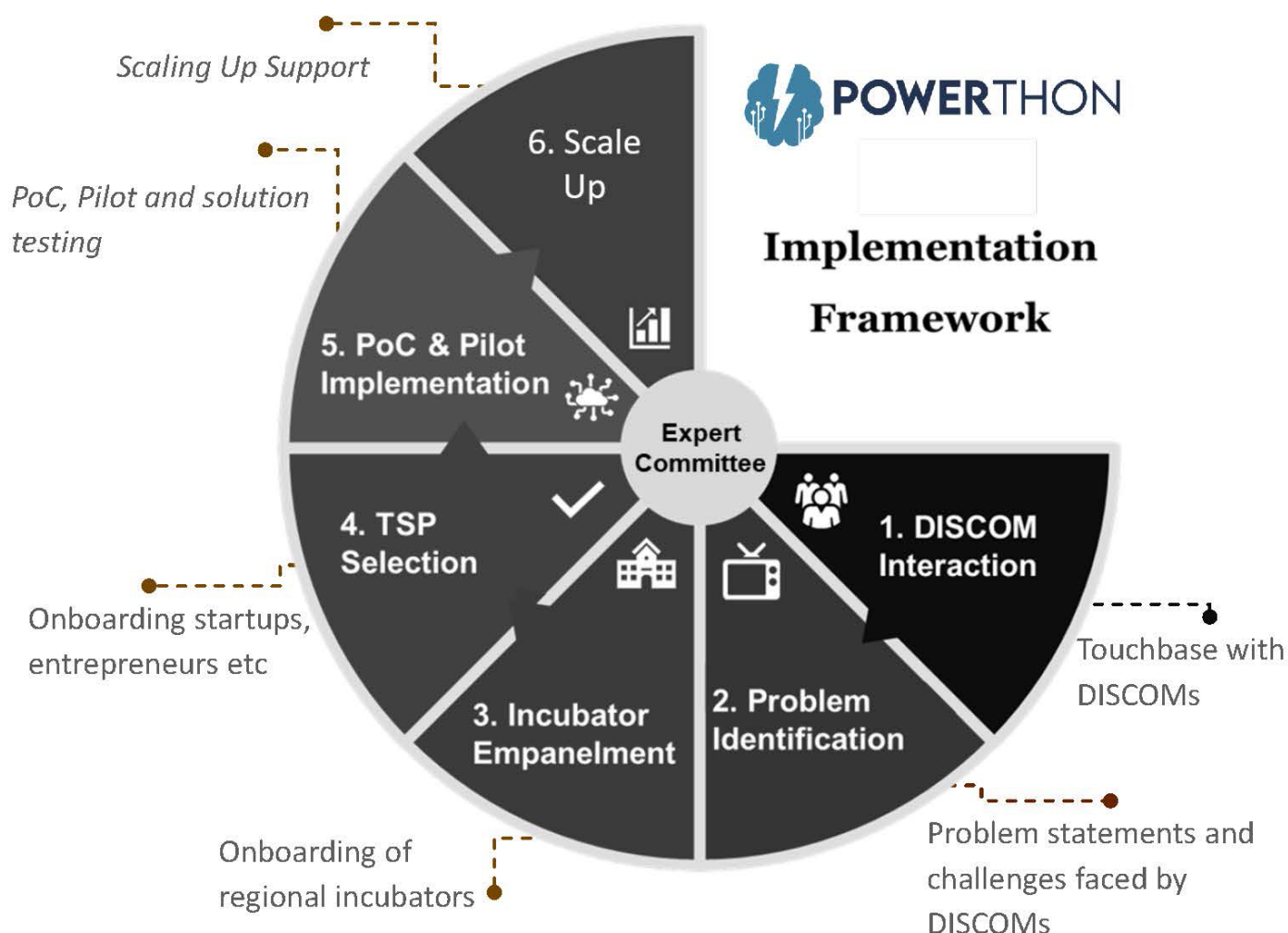
3 Solutions identified for scaleup

Taking Powerthon forward

Powerthon-2024

Moving on from the success of Powerthon-2022, Ministry of Power intends to take a step forward and establish a stepping-stone for continuous innovation in the power distribution sector by providing essential support to Technology Solutions Providers by offering resources, mentorship, and networking opportunities to nurture these ideas into viable, market-ready technological solutions.

Powerthon-2024 for Budding startups, entrepreneurs having concepts, ideas for solving issues of power distribution and need nurturing & incubation







The Powerthon-2024 emphasizes on incubation of startups with promising ideas and offering them the necessary support to develop and scale their solutions. This phase is critical in bridging the existing technology gap by fostering an environment of innovation and entrepreneurship.

Powerthon 2024

Grant and Support from Govt

The budgetary support in the form of grant will be provided under the aegis of the ongoing RDSS scheme. The funding will be contingent upon the outcomes and evaluation by the Expert and Technical committee. The Salient features of the funding are as indicated below

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-  Total 40 Number of Technology solution providers (TSPs) are planned for the support under Powerthon-2024
-  Each Technology Solution Providers will be eligible for grant as approved under the programme
-  Regional Technology Business Incubators (TBIs) will provide incubation support, along with disbursement of grant to TSPs
-  An Expert and Technical committee formed under programme will monitor progress and approve the grant to TSPs

Support to be accorded to Technology Solution Providers (TSPs)

1. Technology readiness level assessment
2. Incubation Support
3. DISCOM Coordination
4. Mentorship and Expertise
5. Programme Monitoring support
6. Funding Support

Opportunity for Technology Solution Provider (TSPs) | Participation

TSPs to indicate their intent to participate by filling online form



TSPs can indicate their intent to participate against any one or more problem areas

TSPs are to indicate the intent only, going forward they will be called for submitting detailed application and supporting documents by the Technology Business Incubators (TBIs)

Key Problem Areas for Phase-2



1. Accurate Demand/ Load Forecasting/ Power Purchase Cost Optimization

- Demand and load forecasting (including RE injection at distribution and generation level, Open Access), EV charging, Power purchase analytics, least power cost prioritization.



2. Demand Side Management

- Modifying consumer energy demand to balance the electricity supply and load on a network so as to help utilities defer the need for new power sources and reduce the cost of energy.



3. Improved Power Quality

- Calculation/ Monitoring of SAIFI & SAIDI considering N-1 topology, lowering fluctuations, fault prevention, Predictive maintenance, timely detection of faults, load balancing.



4. RE Integration in Distribution System

- DER sources integration, C2C energy trading, use of block chain, Consumer energy injection in LT system, automatic load shifting.



5. Energy meter recycling:

- Avenues for recycling conventional energy meters, modes of disposal, environment safeguard consideration



6. Digital Twin:

- Dynamic, real-time replica of the physical distribution grid. It brings together data from various sources to provide a comprehensive view of power flows, and grid behaviors. Adoption of Distributed automation systems, IoT etc. is vital from future perspective.



7. Smart Metering:

- Viable AMI solutions for small number of consumers, Data analytics and Use cases of Smart meters for Consumers and DISCOMs



8. Distribution Asset Management:

- Monitoring and tracking of the distribution assets digitally, aging, asset maintenance, Inventory management, etc.

The Key Problem areas as stated above are tentative and will further be discussed with DISCOMs and scope may accordingly be broadened

SCAN TO PARTICIPATE

