



**Andhra Pradesh Eastern Power Distribution
Company Limited (APEPDCL)
VISAKHAPATNAM – 530013
India**

**Expression of Interest (EoI) from
Eligible Firms
for
Provisioning, Management,
and Monitoring of Networking
Services (AMI e-SIM
Connectivity) for Smart Meters
at APEPDCL**

REQUEST FOR EXPRESSIONS OF INTEREST (EOI) For Provisioning, Management, and Monitoring of Networking Services (AMI e-SIM Connectivity) for Smart Meters at APEPDCL

Reference No.: [To be provided by APEPDCL]

1. Introduction

Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL) invites Expressions of Interest (EOI) from eligible Telecom Service Providers (TSPs), IoT Connectivity Partners, and Managed Service Providers (MSPs) for the provisioning, integration, and management of embedded SIMs (e-SIMs) to enable secure and reliable communication between smart meters and the Head-End System (HES).

The proposed e-SIM solution will initially cater to 5,00,000 smart meters and shall be scalable up to 8,00,000 smart meters, ensuring end-to-end connectivity, visibility, and SLA-based service delivery across APEPDCL's jurisdiction in Andhra Pradesh.

2. Objective of the EOI

The purpose of this EOI is to identify capable partners who can design, supply, and operate an end-to-end managed e-SIM connectivity ecosystem supporting APEPDCL's smart metering operations through:

- Secure and reliable cellular connectivity (2G/3G/4G/LTE/NB-IoT/5G).
- Multi-network and failover-ready e-SIM profiles.
- Centralised monitoring and control through a Connectivity Management Platform (CMP).
- SLA-based performance reporting and payment linkage.
- Scalable and interoperable architecture that integrates with the HES and MDMS systems.

3. Scope of Work

The bidder shall be responsible for the design, supply, activation, integration, and management of e-SIMs and associated services for AMI applications.

3.1 e-SIM Design and Provisioning

- Supply of industrial-grade e-SIMs (eUICC) compliant with GSMA SGP.02 / SGP.32 standards.
- Support for remote profile provisioning and switching between multiple Mobile Network Operators (MNOs).
- e-SIM lifecycle management (activation, suspension, deactivation, re-profiling).
- Private APN setup for secured M2M communication between meters and HES.

3.2 Connectivity Services

- Connectivity across multiple cellular technologies — 2G/3G/4G/LTE/NB-IoT/5G.
- Domestic roaming or multi-operator profiles to ensure near-100% coverage.
- Encrypted communication (VPN/IPSec) between the CMP and HES Data Centre.
- Flexible data plans (50–150 MB/month per SIM).
- Static or dynamic IP allocation as per requirement.

3.3 Monitoring and Control

- Web-based Connectivity Management Platform (CMP) accessible to APEPDCL for:
 - Real-time SIM status, signal strength, and data usage.
 - Activation/deactivation and troubleshooting.
 - Alerts on network outage, inactive SIMs, or unusual data trends.
- APIs for integration between CMP and HES/MDMS for SIM health and uptime metrics.
- Dashboard-based SLA tracking with audit trails and historical analytics.

3.4 Integration with HES and MDM

- Secure northbound integration between e-SIM CMP and HES/MDMS using RESTful APIs, JSON/XML.
- Compliance with DLMS/COSEM, IS 16444, and IS 15959 protocols for smart meter communication.
- Support for seamless onboarding of new meters and automatic SIM association.

4. Eligibility Criteria

S. No.	Criterion	Requirement
1	Legal Entity	Indian registered entity with a valid DoT authorisation (UL/VNO/IoT license).
2	Experience	Minimum 3 years in M2M/e-SIM connectivity; minimum 2 lakh active e-SIMs managed in India.
3	Financial Capacity	Average annual turnover $\geq$ ₹25 Cr in the last 3 years.
4	Certifications	ISO 9001, ISO 27001 preferred.
5	Support Setup	24x7 NOC and technical helpdesk within India.

5. Submission of EOI

Interested and eligible firms should submit their detailed EOI including:

- Company profile, licenses, and certifications.
- Technical proposal with architecture, CMP overview, and SLA computation methodology.
- Proposed payment terms linked to SLA performance.
- Case studies of previous smart metering or IoT deployments.
- Any value-added services offered (e.g., redundancy, dual-profile support).

EOIs must be submitted to the following address on or before [insert submission date]:

Chief General Manager (Projects)

Andhra Pradesh Eastern Power Distribution Company Limited (APEPDCL)

Corporate Office, Seethammadhara,

Visakhapatnam – 530013, Andhra Pradesh, India

Tel: +91-[insert number]

Email: [insert email address]

6. Conclusion

This EOI aims to establish a secure, scalable, and high-availability e-SIM connectivity solution for APEPDCL's Advanced Metering Infrastructure. The selected partner will play a key role in enabling real-time data acquisition, device control, and analytics through a reliable and SLA-driven communication framework, supporting APEPDCL's vision for a digital, automated, and customer-centric utility network.