



Template for R&D Intervention

(To be filled by industry)

Details of the Company

Name	:	Smart Power India transitioning into the Global Energy Alliance for People and Planet (GEAPP)
Sector	:	Distributed Renewables Energy

Details of the Challenge

Sector	:	Mini-Grids (DRE) and interested DISCOMs (Private and State Utilities)
Objective	:	<ol style="list-style-type: none">1. Develop a (hardware and software) prototype solution (sub \$15) to address the lack of a two-way communication between the end customer and mini-grid developer2. Address the gaps in technology and infrastructure for metering, billing and collection by providing data on units consumed, using a centralised server to monitor the meters, defining parameters for collection efficiency along with monitoring capabilities for billing. For example, if a customer defaults on the payment, the connection can be controlled from the server itself3. Additionally, we aim to encourage innovation and loop in energy start-ups to contribute to provision of reliable energy access to the last mile4. The prototype should also engage communication technology for real-time data capturing. For example LoRA (Long range radio technology)
Description	:	<p>Smart Power India (GEAPP) is organising a Hackathon for energy start-ups to develop a smart-meter technology for two-way communication between the mini-grid and electricity customers. The two-way communication includes consumption data, pre-paid and post-paid from the customer side, payment options and load pattern data. This data is crucial for analysis of electricity usage and requirements and can be best measured through a smart-meter interface which is easy to operate, accurate and prompt, and requires less maintenance and minimal human interference.</p> <p>ROLE OF CORE PARTNERS:</p>

		<ol style="list-style-type: none"> 1. Organising, overall coordination and host: Smart Power India/GEAPP in partnership with Oo PSA Bringing together partners, administration and organising the kick-off and main Hackathon event 2. Jury Involved in screening final contestants and selecting the winning prototype 3. Implementation partners: Smart Power India/GEAPP and ESCO: Implement the winning solution on ground
Category (Select One)	:	<ol style="list-style-type: none"> 1. Centre of Excellence (CoE) 2. R&D Project 3. Project for Research scholars
Selected category details		This will be an R&D project with actual deployment on ground for testing
Tentative Budgets	:	<p>\$100K for R&D prototype which includes meter development and software integration</p> <p>(Deployment on ground to be routed through the ESCO in a controlled environment with a limited number of customers)</p>
Timelines	:	<ul style="list-style-type: none"> - Three months for development of the solution whilst a shortlisting procedure (Tentatively September – November) - Six months for implementation of the pilot by winning start up (Tentatively February onwards)
Expected Outcomes	:	A smart meter prototype that enables the above-mentioned requirements at a pre-determined cost and deploying that in both mini-grids and interested utility space in partnership with Smart Power India and Mini-grid partner/State utility.
Other Details	:	<ol style="list-style-type: none"> a) Are Joint Proposals Allowed – Yes (clearly outlining the scope of work between the applicants involved) b) Are multiple submissions allowed? – Yes c) Project Coverage (Regional/Pan -India) – Pan India for Hackathon; Bihar/UP (Mini-Grids) for implementation
Format	:	<ol style="list-style-type: none"> a) Word Limit if any - Open b) Template if any – Open
Technology Readiness Level	:	<p>Ready to deploy for Pilot</p> <p>In prototype development phase which can be ready to deploy for Pilot by end of the duration of mentorship offered via the hackathon</p>

Shortlisting Procedure	:	<ul style="list-style-type: none"> (i) Screening of entries to shortlist top 20 (ii) Interview round to shortlist top 5 out of top 20 (iii) Prototype development and picking winner from top 5 <p>(Jury to lead shortlisting procedure)</p>
IPR Ownership (Patenting Pattern)	:	Applicant and Smart Power India/Global Energy Alliance for People and Planet

Details of Current/Previous Industry Academia Collaboration

We have jointly published reports for the sector with John Hopkins University and Niti Aayog capturing customer level data towards electricity behaviour. These reports are one of a kind since it reflects detailed information on the demand side. These and other publications by Smart Power India can be accessed [here](#).