New Energies

Grids of the Future

CONTEXT

The electricity system is undergoing a transition as technology and innovation disrupt traditional models from generation to behind the meter. This transition involves rapidly evolving technologies, declining costs, and increased complexity. As recently reported in the World Economic Forum paper titled "The Future of Electricity: New Technologies Transforming the Grid Edge"[1] three trends are converging: electrification, decentralization and digitalization, bringing this transition to reality.

WHAT WE ARE LOOKING FOR

We seek proposals in all three areas:

- **Electrification –** Vehicle to grid/home, energy storage (grid and mobile).
- **Decentralization –** Technology related to distributed energy resources (DERs) such as distributed storage, distributed generation, microgrids, demand flexibility and energy efficiency management.
- **Digitalization –** Automated control, integration and management systems providing the ability to manage and predict demand/generation. Potential solutions related to the grid (smart metering, smart sensors, automation and digital network technologies) or behind the meter (Internet of Things (IoT), Artificial Intelligence (AI)).

Ideal proposals are early stage technology and/or from companies working to derisk technology and/or business models. The GameChanger program offers non-diluted pre-seed/seed funding, subject matter expertise, and connections to assist with industry understanding and uptake.

Typically, technologies with a TRL 2-5 (as per [API 17N](#)) are the best candidates for this call. Please provide a clear description on how you will reach your "Proof of Concept".

WE APPLY THE FOLLOWING CRITERIA FOR CONSIDERATION:

1. Novel – Is the idea fundamentally different and unproven?
2. Valuable – Could the idea create substantial new value if it works?
3. Doable – Is there a plan to prove the concept quickly and affordably?
4. Relevant (Why Shell?) – Is the idea relevant to the future of energy?

Any information submitted as part of the process must contain only NON CONFIDENTIAL data and information at this stage.

The funding opportunity will be in the range USD 150,000 – 300,000 to progress a "proof of concept" in a phased approach over a period of no more than 12 months. Further development may be supported and or facilitated by Shell depending on the overall outcome of the initial award.

For questions contact GameChanger-Challenge@shell.com