

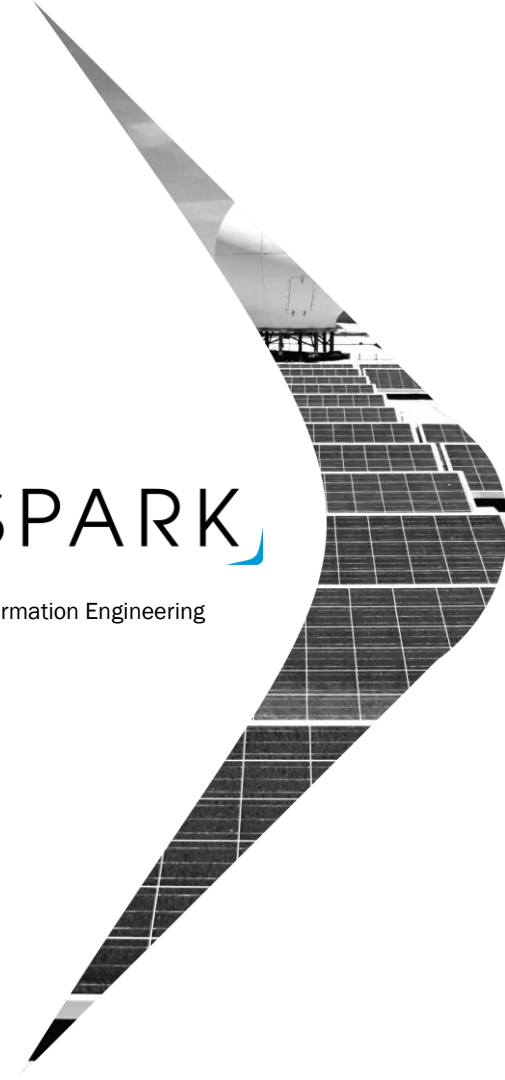


TE Challenge Kickoff Workshop
September 10-11, 2015
NIST Headquarters, Gaithersburg, MD

CLEANS PARK

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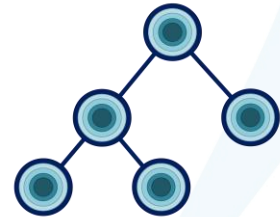
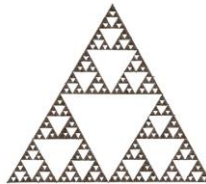
PROJECT IDEAS





FRACTALGRID

- **fractal** is a self-similar recursive pattern that allows for a microgrid-inside-microgrid solution
- **FractalGrid**
 - (usually) community-scale, but allows for indefinite scalability with well-bounded complexity of $O(n)$
 - makes use of standards and commercial-off-the-shelf (COTS) equipment, when available
 - units can operate autonomously and collaboratively



CleanSpark's Transactive Energy Goals

- Use a well-defined transactive energy standard to share power within a system of microgrids
 - Distributed client
 - Advance scheduled transactions or near real time
 - Secure communications
 - Use open source, commercially compatible libraries
- Determine cost distribution among microgrids in a system

Potential Projects or Contributions

- Open source software implementation of TEMIX-style transactive energy framework
- Open ADR 2.0c profile definition/reference implementation
- Provide a live reference demonstration/implementation using an existing FractalGrid or other system of microgrids

Team Members Needed

- Simulation – test scalability of solution
- Utility or Balancing Authority – test interoperability at a large scale
- Load control device manufacturers – test market participation at both a device level and microgrid level

Thank You

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