

Interoperability

Context

Too many devices and systems today cannot interoperate or require difficult and time-consuming integration processes. This results in fewer deployed new technologies (including Distributed Energy Resources - DER) and higher costs.

Key Objectives:

- Advance adoption of interoperable products and services in the energy sector.
- Align stakeholders on a strategic vision.
- Develop measures and tools to support interoperability.

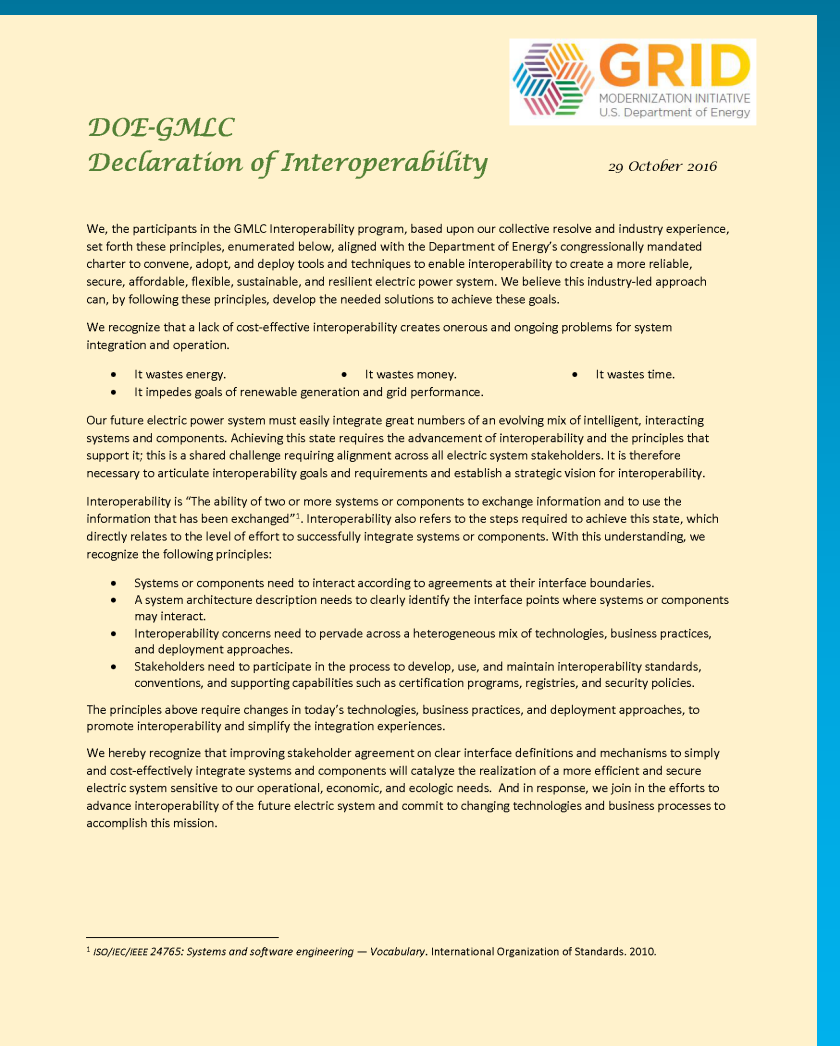
Partner Involvement

Advancing interoperability requires stakeholder alignment; it's a shared challenge. To achieve alignment, the project regularly meets with 16 industry partners and holds 2 public events per year to provide critical review of ideas and plans, and help shape the work to reflect the concerns of industry.



Declaration of Interoperability

About 50 people from a cross section of industry met to create a "declaration of interoperability" that lays out a common definition of interoperability, problems caused by poor interoperability, and a commitment to advance interoperability. This involves changes to integration technologies and business processes within sectors across them.



Columbus, OH

Chicago, IL

Project Outreach

The Public Utilities Fortnightly (April 2017) includes an article about this project, discussing the importance of interoperability as more smart devices are deployed. Presentations and discussions have also been held at GWAC, SGIP, and AHR Expo events. Project information has been circulated in the SGIP, NIST, and LonMark newsletters. The project will also be describing its work at the IEEE ISGT, IEEE PES, SEPA Grid Evolution, and Transactive Energy Systems Conferences.



Industry Workshops

At a September 2016 workshop held in Chicago, industry participants advanced criteria for interoperability, enhanced integration vision stories, and affirmed project directions.

The ~50 participants offered diverse perspectives on challenges and goals that tested universal concepts and principles, and explored scope and direction of the project using DER integration as an example. The next event is planned for May 2017 in Columbus.

Year 1 Deliverables

This project provides leadership visibility to DOE as a champion for grid modernization interoperability with a number of deliverables, including:

- Strategic Vision
- Roadmap Methodology
- Interoperability Maturity Model.

Year 2 Deliverables

- Socialize an interoperability strategic vision document.
- Demonstrate interoperability measurement and path forward.
- Complete draft of interoperability procurement tools.

Expected Outcomes

- Establish an interoperability strategic vision.
- Describe the state, challenges, and path forward to advance interoperability.
- Offer tools to facilitate gap analysis, develop roadmaps, and demonstrate vision concepts

Year 3 Deliverables

- Introduce incentives for industry participation to advance interoperability.
- Identify commonality across technology domains
- Reduce the uniqueness in the number of DER interface agreements
- Set course for standards convergence