

LF Energy



Welcome to the LF Energy Wiki. Here you can access information with a cross project focus. For individual projects, follow the links below. You will need a Linux Foundation ID (created at <https://identity.linuxfoundation.org/>) to contribute. In the upper right of this page, select Log In to contribute.

LF Energy is a Linux Foundation project that provides a vendor-neutral home focused on building shared open source infrastructure to deliver unprecedented innovation in renewable energy, power electronics, electric mobility, and more.

Get Involved!

Ask questions, email operations@lfenergy.org

Join the [mailing lists](#)

Follow us on [Twitter](#) and [LinkedIn](#)


Resources

[Presentation Template](#)

LF Energy's technical projects are organized underneath the [Technical Advisory Council](#) in order to create specific software or services. Project chairs or leaders report up to the TAC, and projects at the Early Adoption or Graduated [maturity level](#) vote on TAC business.

Projects are distinct from technical working groups, which meet to develop or explore specific functional areas, or Special Interest Groups, who meet regularly for discussions but do not have a specific charter.

Current Projects

Name	Description	Assets	Stage				
	<h3>Grid eXchange Fabric</h3> <p><i>Control and Monitor Smart Devices</i></p> <p>Grid eXchange Fabric (GXF) allows you to monitor and control hardware in the public space. With several (generic) functions ready to use, the main benefits of GXF are: scalability & high availability, high security, its generic design, and no vendor lock-in.</p>	<p>Wiki page on this server</p> <p>Web page on lfenergy.org</p> <p>Code repository on github.com</p> <table border="1"><thead><tr><th>Name</th><th>Description</th></tr></thead><tbody><tr><td>GXF-general</td><td>Grid eXchange Fabric general discussion list</td></tr></tbody></table>	Name	Description	GXF-general	Grid eXchange Fabric general discussion list	<p>EARLY ADOPTION</p>
Name	Description						
GXF-general	Grid eXchange Fabric general discussion list						



RIAPS

An Effective Distributed Software Platform for Smart Grid Apps

The Resilient Information Architecture Platform for Smart Grid (RIAPS) provides core infrastructure and services for building effective, secure and powerful distributed Smart Grid applications.

[Wiki page](#) on this server

[Web page](#) on [lfenergy.org](#)

[Code repository](#) on [github.com](#)

EARLY ADOPTION

Name	Description
RIAPS-general	RIAPS general discussion list
RIAPS-announcement	RIAPS Announcements
RIAPS-dev	RIAPS developers
RIAPS-tsc	RIAPS Technical Steering Committee



PowSyBI

A High-Performance Computing Framework For Grid Simulation and Planning

PowSyBI provides the code building blocks for the simulations and analyses of power systems, for horizons from real-time operation to investment planning.

[Wiki page](#) on this server

[Web page](#) on [lfenergy.org](#)

[Code repository](#) on [github.com](#)

EARLY ADOPTION

Name	Description
PowSyBI-general	PowSyBI general discussion list
PowSyBI-announcement	PowSyBI Announcements
PowSyBI-dev	PowSyBI developers
PowSyBI-tsc	PowSyBI Technical Steering Committee



OperatorFabric

A Smart Assistant For System Operators

OperatorFabric is a modular, extensible, industrial-strength and field-tested platform for use in electricity, water, and other utility operations.

[Wiki page](#) on this server

[Web page](#) on [lfenergy.org](#)

[Code repository](#) on [github.com](#)

EARLY ADOPTION

Name	Description
OperatorFabric-general	Operator Fabric general discussion list
OperatorFabric-announcement	Operator Fabric Announcements
OperatorFabric-dev	Operator Fabric developers
OperatorFabric-technical-steering-committee	Operator Fabric Technical Steering Committee

OpenEEmeter

Consistent treatment of energy meter data for demand flexibility

Generates consistent and replicable results by always using the same methods to determine changes in energy consumption-there are no discretionary independent variables that change from calculation to calculation.

[Wiki page](#) on this server

[Web page](#) on [lfenergy.org](#)

[Code repository](#) on [github.com](#)

INCUBATION

Name	Description
OpenEEmeter-general	OpenEEmeter general discussion list
OpenEEmeter-announcement	OpenEEmeter Announcements
OpenEEmeter-dev	OpenEEmeter developers
OpenEEmeter-tsc	OpenEEmeter Technical Steering Committee



EM2

Reducing the costs of scaling demand-side energy through collaboration

Energy Market Methods Consortium (EM2) is developing standardized methods, linked to open source code, to enable demand flexibility as a resource, supporting energy programs and distributed energy resource (DER) markets.

[Wiki page](#) on this server

[Web page](#) on [lfenergy.org](#)

[Code repository](#) on [github.com](#)

EARLY ADOPTION

Name	Description
EM2 - general	EM2 general discussion list
EM2 - tsc	EM2 Technical Steering Committee
EM2 - CalTrack	CalTrack working group mailing list
EM2 - Grid	EM2 GRID Project
EM2 - Seat	EM2 SEAT Project



CoMPAS

Configuration Modules for Power industry Automation Systems

The CoMPAS project was formed to develop open source software components related to IEC 61850 model implementation (profile management) and configuration of a power industry Protection Automation and Control System (PACS). CoMPAS is part of the Digital Substation (DSAS) Initiative.





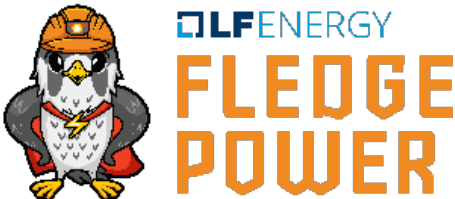
[Wiki page](#) on this server

[Web page](#) on [lfenergy.org](#)

[Code repository](#) on [github.com](#)

INCUBATION

Name	Description
CoMPAS-general	CoMPAS general discussion list
CoMPAS-announcement	CoMPAS Announcements
CoMPAS-dev	CoMPAS developers
CoMPAS-tsc	CoMPAS Technical Steering Committee

	OpenLEADR	Wiki page on this server Web page on lfenergy.org Code repository on github.com	<div style="background-color: #2e8b57; color: white; padding: 2px; text-align: center;">INCUBATION</div>
	SEAPATH	Wiki page on this server Web page on lfenergy.org Code repository on github.com	<div style="background-color: #2e8b57; color: white; padding: 2px; text-align: center;">INCUBATION</div>
	Hyphae	Wiki page on this server Web page on lfenergy.org	<div style="background-color: #2e8b57; color: white; padding: 2px; text-align: center;">INCUBATION</div>
	SOGNO	Wiki page on this server Web page on lfenergy.org	<div style="background-color: #6495ed; color: white; padding: 2px; text-align: center;">EARLY ADOPTION</div>
	FledgePOWER	Wiki page on this server Web page on lfenergy.org	<div style="background-color: #2e8b57; color: white; padding: 2px; text-align: center;">INCUBATION</div>

Current Initiatives

Digital Substation (DSAS) - [CoMPAS](#) is the first project underneath the Digital Substation initiative.

Working Groups

Technical working groups are organized underneath the [Technical Advisory Council](#) in order to perform detailed work in a specific area. Working groups generally work on a specific aspect of the functional architecture. They may have a specific deliverable, and can make suggestions on existing projects or propose projects.

Working group chairs or leaders report up to the TAC, but do not vote on TAC business.

Working groups are distinct from [Projects](#), which create software or services, and [Special Interest Groups](#), which meet regularly for discussions but do not have a specific charter.

To join any of the technical working groups, please click the mailing list link below and visit their corresponding wiki page.

Name	Description	Wiki	Mailing List
Full Architecture Working Group	Architecture standing committee to develop the overall architecture for LF Energy	Full Architecture WG Wiki Page	Full Architecture WG Mailing List
Functional Architecture Working Group	Working group to create a common functional architecture defining a fit-for-the-future power grid and creating a common understanding of required functional capabilities.	Functional Architecture WG Wiki Page	Functional Architecture WG Mailing List
Data Architecture Working Group	Working group on Data Architecture	Data Architecture WG Wiki Page	Data Architecture WG Mailing List
Power System Network Operations	Defining an open source strategy and approach to the power system network operations of the future	Power System Network Operations WG Wiki Page	

Security	LF Energy - Special Interest Group on Security	Security Wiki Page	Security Mailing List
Architecture: Infrastructure & Cloud	Architecture: Infrastructure & Cloud special interest group	Architecture Infrastructure & Cloud Wiki Page	Architecture Infrastructure & Cloud Mailing List

Special Interest Groups

To join any of the special interest groups, please click the mailing list link below and visit their corresponding wiki page.

Name	Description
Digital Substation Automation Systems (DSAS)	The design of the new DSAS requires a higher level of modularity, interoperability, and scalability compared to previous generations. Open source collaboration is an essential part of meeting those requirements in a cost-efficient way.
Asset Monitoring	RTE initiated an internal project aiming at replacing an aging asset monitoring system and paving the way for a shift from preventive maintenance to predictive maintenance.
Digital Twin	Validate an IoT approach that is compatible with a Blockchain architecture and running on the edge of a distributed cloud environment for a smart energy "System of Systems"
Microgrids AC/DC /Hybrid	The Microgrid is in a community-building exercise to identify language and approaches. Right now we are looking at a number of open source implementations to understand the pros, cons, and various use-cases. Come join this group! We are open to new participants.
IoT	LF Energy IoT and Energy
Supply-Chain Security/DBoM	This SIG is looking to stand-up a proof of concept for supply-chain attestation. Broad group of vendors, suppliers, OEMs, security folks, and utilities.
E-Mobility SIG	This is SIG is just starting November 10th, 2020...come help us define the future of the open source parts of e-mobility and V2G