

LF Energy

A Linux Foundation Project to accelerate the Energy Transition

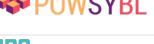




The Linux Foundation's goal is to create the greatest shared technology investment in history by enabling open collaboration across companies, developers and users.

We are the nonprofit organization of choice to build ecosystems that accelerate open source technology development and commercial adoption on a global scale.



Security	       
Networking	       
Cloud	      
Automotive	  
Blockchain	     
Edge/IoT	       
Web	        
AI	        
Film	      
CI/CD	        
Energy	       
Hardware	    
Standards	      

LF beyond Linux

Mission/Vision

The Linux Foundation's mission is to support the world's most important shared technology collaborations.

LF Energy's mission is to create a technology ecosystem to support rapid decarbonization that benefits the environment, enables economic prosperity, and leads to social well-being for future generations.

Reference: [Climate Tech Review overview of LF Energy for the Climate Tech 100](#)

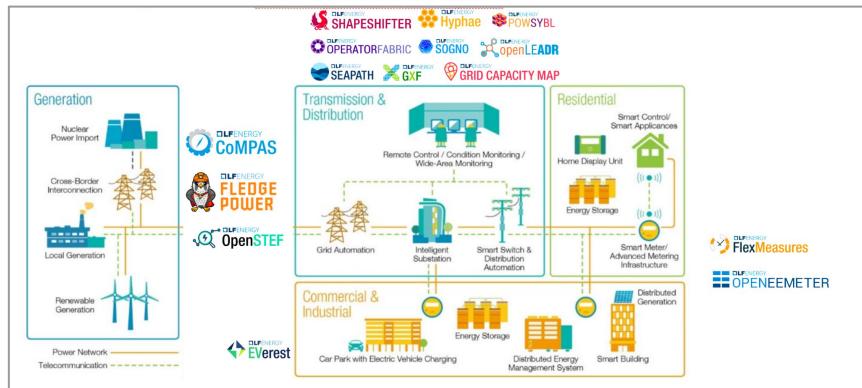


Linux Foundation Energy is a vendor-neutral, non-profit organization that brings together energy producers, utilities, end users, academia, government and the technology industry to collaboratively develop technology solutions – including software solutions, standards, and specifications – for the energy sector to speed decarbonization and the energy transition generally.

Why LF Energy?

Energy Ecosystem is now a software challenge & speed of innovation is key!

- + The energy transition requires collaborative, open, and neutral solutions to achieve decarbonization.
- + Open collaboration accelerates innovation to scale, modernize, and digitally transform the energy sector through software orchestration.
- + LF Energy builds communities to develop open technologies, frameworks, reference architectures, and research to alleviate pain points and identify the most urgent priorities to digitally transform the energy sector. This includes cybersecurity, interoperability, control, automation, virtualization, flexibility, and digital orchestration for balancing of supply and demand, which cannot be solved by legacy, proprietary solutions.

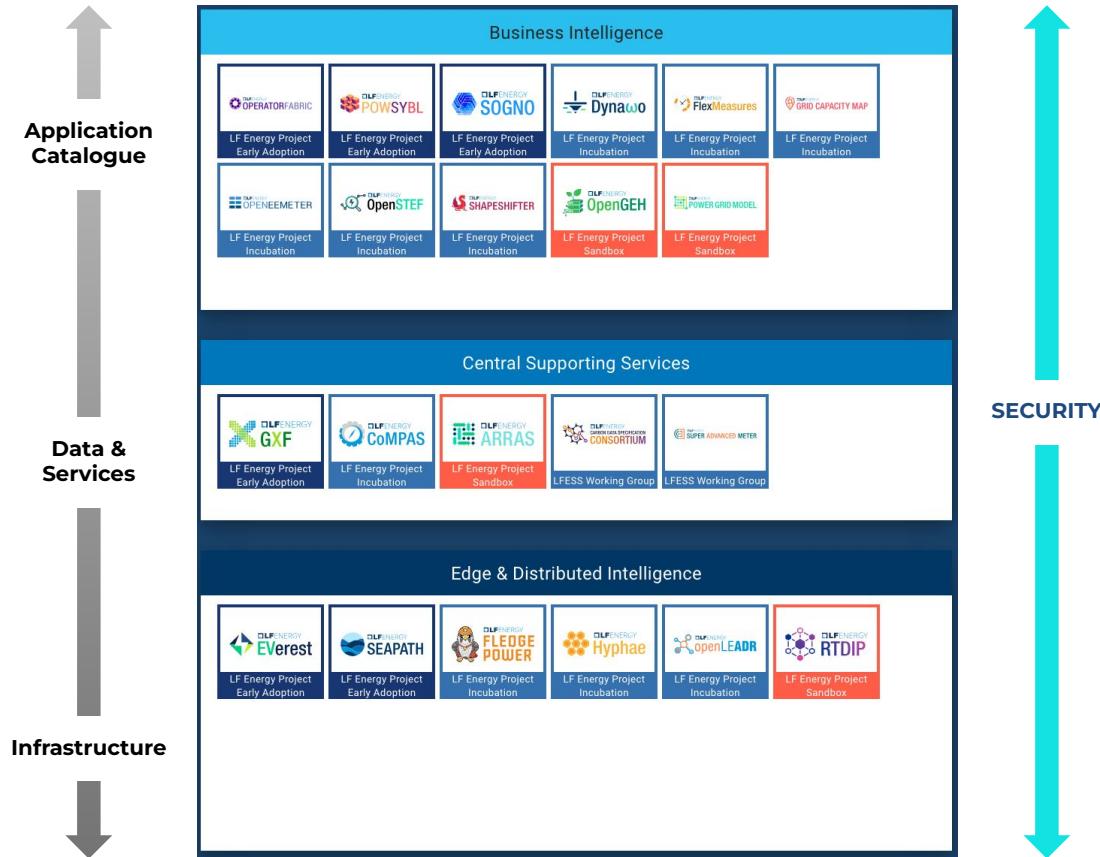


LF Energy Key Stats:

- Hosting 24 open source projects covering the energy systems tech stack from generation to distribution to end use
- 70+ members, including utilities, research organizations, traditional energy system vendors, and technology vendors
- Annual increases of:
 - Contributors - 29%
 - Lines of code - 60 million
 - Members - 19%

Where We Add Value:

- Neutral governance providing a home for collaboration across all stakeholders from utilities to researchers, vendors, government, and more
- Project management and hosting infrastructure
- Legal support including licensing, trademarks, etc.
- Communications support including events, thought leadership, etc.
- Community management, to encourage growth, innovation, and determining priorities and direction



LF Energy Landscape

lfenergy.org

1,343 projects,
market cap of
\$7.5T and
funding of
\$17B.



LF Energy Landscape
1.0

See the interactive landscape at lfenergy.org

LF ENERGY Landscape

Renewable Energy

Photovoltaics and Solar Energy Wind Energy Hydro Energy Geothermal Energy Bioenergy

Battery Hydrogen

Energy Storage

Modeling and Optimization Monitoring and Control Distribution and Grids Datasets on Energy Systems

Buildings and Heating Mobility and Transportation Production and Industry Computation and Communication

Consumption of Energy and Resources

Carbon Intensity and Accounting Carbon Capture and Removal Emission Observation and Modeling

Emissions

Industries

Uiosphere

Cryosphere Hydrosphere Atmosphere

Earth Systems

Climate and Earth Science

Earth and Climate Modeling Radiative Transfer Meteorological Observations and Models Climate Data Processing and Access Integrated Assessment

Nature References

Air Quality Water Supply and Quality Soil and Land Agriculture and Nutrition Natural Hazard and Resilience

Sustainable Development Sustainable Investment Knowledge Platforms Data Catalogs and Interfaces Curated Lists

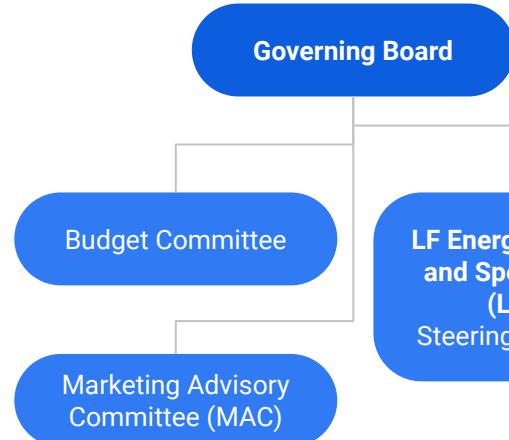
Life Cycle Assessment Circular Economy and Waste

Governance & Membership

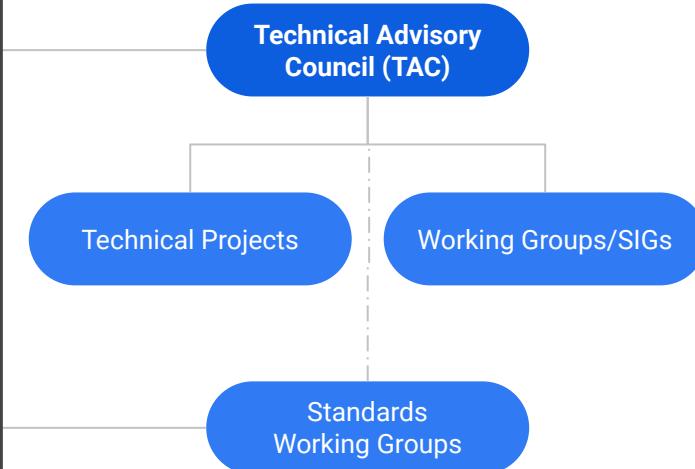
QLF ENERGY

Governance at a Glance

Fiduciary Governance - Membership driven



Technical Governance - Open to all



Governing Board voting representatives



Lucian Balea
Chair

Open Source
Program Director at
RTE (Reseau de
Transport
d'Electricite)



**Dr. Antonello
Monti**

Professor at RWTH
Aachen University



Arjan Stam
Treasurer

Value Stream Lead
at Alliander



Audrey Lee

Senior Director,
Energy Strategy at
Microsoft
Corporation



Bryce Bartmann
Chief Digital
Technology Advisor
at Shell
International
Petroleum Company



Jordan Hughes
Senior Software
Engineer at Apple
Inc.



**Dr. Marissa
Hummon**
CTO at Utilidata



Maud Texier
Head of Energy
Development at
Google LLC



Dr. McGee Young
CEO at WattCarbon

Technical Advisory Council (TAC) voting representatives



Antonello Monti
Chair
Professor
RWTH Aachen
University



Anne Tilloy
Project manager
RTE (Reseau de
Transport
d'Electricite)



Art Pope
Member of
Technical Staff at
Google LLC



Avi Allison
Program Manager,
Energy,
Sustainability
Microsoft
Corporation



Boris DOLLEY
Director of
Sustainable IT
Strategy
RTE (Reseau de
Transport
d'Electricite)



Bryce Bartmann
Chief Digital
Technology Advisor
Shell International
Petroleum Company



**Jonas van den
Bogaard**
Open Source Office
Lead
Alliander



Maarten Mulder
PO Field Device
Platforms
Alliander



Travis Sikes
Senior Data
Scientist
Recurve

LF Energy Members

LF ENERGY

LF Energy Member - Strategic (5) +1



LF Energy Member - General (21) +3



LF Energy Member - Associate (37) +3



Membership and Participation Levels

Membership Level	Annual Fee	Plus Linux Foundation Membership: Silver (if not a member)	Board Seat	TAC Seat	Outreach Committee	Suggested Minimum FTE*	Notes
Strategic	Flat fee: \$150k	\$20k	Yes	Yes	Yes	1	Two year minimum commitment
General	Based on number of employees \$50K (5000+) \$30K (1000–4999) \$20K (200–999) \$10K (100–199) \$5,000 (0–99)	Based on number of employees \$20K (5000+) \$15K (499-4999) \$10K (100-499) \$5,000 (0-99)	(Possible) 1 per every 10 General members	Based on Merit	Yes	N/A	A TAC seat may be earned by technical contribution as a project leader
Associate	No fee	No	(Provisional at start-up)	Based on Merit	Yes	N/A	Limited to academic, research and NGO organizations

* FTE = Full Time Equivalent (e.g. 2 employees each spend 50% of their time on a project). This suggestion is meant to provide a minimum resource investment to ensure members are contributing technically. Most projects see much higher investment of resources than the minimum requirement.

Membership Benefits



Tier	New to LF	Existing LF member	Benefits
Strategic	\$170,000	\$150,000	<ul style="list-style-type: none"> • Appoint one (1) voting representative to the LF Energy Governing Board. • Appoint one (1) voting representative to the LF Energy Technical Advisory Council (TAC) • Appoint one (1) representative as a voting member in any subcommittees or activities of the Governing Board. • Enjoy most prominent placement in displays of membership including on the website and in marketing materials. • 1 guest LF Energy blog post per quarter • 1 LF Energy hosted webinar per quarter • 1 Linux.com blog post per year • 10 complementary LF Training course/certification tickets • Create an individualized press release to announce membership with LF Energy PR. • Receive greater insight into LF Energy strategy and project roadmaps through increased engagement with the LF Energy Executive Director and staff. • Receive ongoing, monthly 1:1, individual engagement and guidance from LF Energy Executive Director • Increased access to invitation-only Linux Foundation Member Summit. • Receive discounts on LF Energy conferences + event sponsorship.
General	<p>\$70,000 (USD) 5,000+</p> <p>\$40,000 (USD) 2,000 – 4,999</p> <p>\$25,000 (USD) 500 – 1,999</p> <p>\$15,000 (USD) 100 – 499</p> <p>\$10,000 (USD) Up to 99</p>	<p>\$50,000 (USD) 5,000+</p> <p>\$25,000 (USD) 2,000 – 4,999</p> <p>\$10,000 (USD) 500 – 1,999</p> <p>\$5,000 (USD) 100 – 499</p> <p>\$5,000 (USD) Up to 99</p>	<ul style="list-style-type: none"> • (Possible) Governing Board seat 1 per every 10 General and Academic and Research Institutions members collectively as a class, with a maximum of 3. • 1 guest LF Energy blog post per year • 1 LF Energy hosted webinar per year • 10 complementary LF Training course/certification tickets • Participate in all marketing, community, thought leadership opportunities. • Receive discounts on LF Energy conferences + event sponsorship. • Identify your organization as a member and display your logo on the LF Energy website and in marketing materials. • Access to The Linux Foundation's invitation-only Linux Foundation Member Summit.
Associate	Free	Free	<ul style="list-style-type: none"> • The Associate category of membership is limited to non-profit/non-governmental organizations. This requires approval by the Governing Board. • Participate in all marketing, community, thought leadership opportunities. • Receive discounts on LF Energy event sponsorship. • Identify your organization as a member and display your logo on the LF Energy website and in marketing materials.

LF Energy Projects



LF Energy Projects - Early Adoption (6)



LF ENERGY
Everest



LF ENERGY
GXF



LF ENERGY
OPERATORFABRIC



LF ENERGY
POWSYBL



LF ENERGY
SEAPATH



LF ENERGY
SOGNO

LF Energy Projects - Incubation (10)



LF ENERGY
CoMPAS



LF ENERGY
DynaWo



LF ENERGY
**FLEDGE
POWER**



LF ENERGY
FlexMeasures



LF ENERGY
GRID CAPACITY MAP



LF ENERGY
Hyphae



LF ENERGY
OPENEEMETER



LF ENERGY
openLEADR



LF ENERGY
OpenSTEF



LF ENERGY
SHAPESHIFTER

LF Energy Projects - Sandbox (4)



LF ENERGY
ARRAS



LF ENERGY
OpenGEH



LF ENERGY
POWER GRID MODEL



LF ENERGY
RTDIP

Contribute to our projects - anyone can!

More information at

<https://wiki.lfenergy.org/display/HOME/Technical+Projects>

Contribute to an existing project:

- Submit a PR with a bugfix or new feature
- Pick existing GitHub issue as a sample project
- Integrate with a new app / contribute plugin
- Help improve project documentation
- Submit additional test cases
- Join the TSC discussion: dev mailing list, conf calls

Get involved with the TAC or Working Group:

- DevOps / CI expertise always useful
- Interest / expertise in security especially welcome
- Join the TAC discussions: [mailing list](#), [conf calls](#)

Contact Us

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Membership

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