Technical Advisory Council (TAC) Meeting

5 September 2023



Meeting information

- → Meeting to begin at 5:00 pm Central European Time
- → Join the meeting by going to https://zoom-lfx.platform.linuxfoundation.org/meeting/95214651568?pass word=eda16f17-bdd1-4a9f-a594-0947a1433153
- → Any problems with connectivity, you can contact John Mertic from the Linux Foundation at +1 234-738-4571
- → Previous TAC Meeting notes, deck, and recording, at https://wiki.lfenergy.org/display/HOME/Technical+Advisory+Council#TechnicalAdvisoryCouncil-MeetingMinutes



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Agenda

All Times in Central European Time Zone

- 5:00 pm 5:15 pm Opening and General Updates
 - TAC and Project lead updates
 - Project Review Cycle
 - New LF Energy Project Logos
 - o TAC Meeting Agendas
 - SGAM update
- 5:15 pm 5:30 pm Battery Data Alliance Proposal
- 5:30 pm 5:50 pm TROLIE Project Proposal
- 5:50 pm 6:10 pm Goals and Objectives Review-AI Strategy
- 6:10 pm 6:25 pm Marketing/PR/Events updates
- 6:25 pm 6:30 pm Closing and Next Meeting



Opening and General Updates

5:00 pm - 5:15 pm



TAC Voting Members

You can update your headshot/title at openprofile.dev.



Antonello Monti Chair

Professor RWTH Aachen University



Anne Tilloy

Project manager RTE (Reseau de **Transport** dElectricite)



Art Pope Member of

Technical Staff Google LLC



Avi Allison





PO Field Device

Platforms

Alliander



Boris DOLLEY Director of Sustainable IT Strategy

RTE (Reseau de **Transport** dElectricite)



Jonas van den **Bogaard** Chief Digital Technology Advisor Open Source Office Shell International Lead **Petroleum Company** Alliander

Maarten Mulder









| | Project | Project Lead(s) |
|---------------------|--|---|
| | PowSyBI | Anne Tilloy, RTE |
| | OperatorFabric | Boris Dolley, RTE |
| | OpenEEmeter | Travis Sikes, Recurve |
| | GXF | Maarten Mulder, Alliander |
| | SOGNO | Antonello Monti, RWTH Aachen University |
| LF Energy Hosted | Compas | Aliou Diaite, RTE & Sander Jansen, Alliander (TAC Representative) |
| Project and Working | FledgePOWER | Akli Rahmoun, RTE |
| Project and Working | Hyphae | Asimenia Korompili, RWTH Aachen University |
| Group Leads | openLEADR | Lonneke Driessen & Stan Janssen, OpenADR |
| | SEAPATH | Éloi Bail, RTE |
| | Grid Capacity Map | Per Lysemose Hansen, Energinet |
| Changes in bold | Shapeshifter | Robben Riksen, Alliander |
| Chariges in bold | OpenSTEF | Frank Kreuwel, Alliander |
| | EVerest | Marco Möller, PIONIX |
| | OpenGEH | Per Lysemose Hansen, Energinet |
| | FlexMeasures | Nicolas Höning, Seita Energy Flexibility B.V. |
| | Arras | David Chassin, SLAC |
| | Dynawo | Marco Chiaramello, Benoît Jeanson, RTE |
| JLFENERGY | OpenFIDO | David Chassin, SLAC |
| | Power Grid Model | Tony Xiang, Alliander |
| | Real Time Data Ingestion Platform (RTDIP) | Bryce Bartmann, Shell |

Project Review Cycle

| Working Groups | | | | | |
|----------------------------|---------------|-----------------------|-------------|------------------|--|
| Group | Current Level | Initially Accepted | Last Review | Next Review | |
| Archimate Working Group | Active | October 4, 2022 | | October 17, 2023 | |

| 2024 Future Reviews | | | | | | |
|---------------------|----------------|-----------------------|------------------|-------------------|--|--|
| Project | Current Level | Initially Accepted | Last Review | Next Review | | |
| OpenFIDO | Sandbox | January 17, 2023 | | January 9, 2024 | | |
| SEAPATH | Incubation | October 6, 2020 | January 17, 2023 | January 9, 2024 | | |
| Hyphae | Incubation | December 8, 2020 | February 7, 2023 | February 20, 2024 | | |
| Power Grid Model | Sandbox | February 7, 2023 | | February 20, 2024 | | |
| FledgePOWER | Incubation | February 11, 2021 | March 21, 2023 | March 12, 2024 | | |
| SOGNO | Early Adoption | October 27, 2020 | March 21, 2023 | March 12, 2024 | | |
| Shapeshifter | Incubation | April 6, 2021 | April 11, 2023 | April 23, 2024 | | |
| Compas | Incubation | May 5, 2020 | July 13, 2022 | June 25, 2024 | | |

Upcoming Reviews Initially Project **Current Level** Accepted Last Review Next Review July 12, 2022 Sandbox July 25, 2023 **Arras** June 21, 2022 July 25, 2023 OperatorFabric April 30, 2019 Grid Capacity Map Incubation April 27, 2021 July 12, 2022 TBD OpenEEmeter Incubation June 4, 2019 September 13, 2022 October 17, 2023 GXF Early Adoption February 4, 2020 October 4, 2022 October 17, 2023 OpenGEH Sandbox October 12, 2021 October 4, 2022 October 17, 2023 October 25, 2022 RTDIP Sandbox November 7, 2023 **OpenSTEF** Incubation September 21, 2021 October 25, 2022 November 7, 2023 FlexMeasures Incubation November 2, 2021 November 15, 2022 November 28, 2023 **PowSyBI** Early Adoption April 30, 2019 November 15, 2022 November 28, 2023 Sandbox December 6, 2022 December 5, 2023 Dynawo **EVerest** Early Adoption October 12, 2021 December 6, 2022 December 19, 2023 OpenLEADR Incubation September 15, 2020 December 6, 2022 December 19 2023

TAC Sponsors for Projects

As part of the benefit for LF Energy projects, the TAC has a sponsor for each project.

"Appointment of an existing TAC member by the TAC that will act as a sponsor of the project and provide recommendations regarding governance best practices."

ACTION: Review assignments, let John or Yarille know if there are issues



| Project | Current Level | TAC Sponsor |
|---|----------------|-----------------------|
| Archimate Working Group | Working Group | Maarten Mulder |
| Arras | Sandbox | Antonello Monti |
| CoMPAS | Incubation | Bryce Bartmann |
| Dynawo | Incubation | Art Pope |
| EVerest | Early Adoption | Bryce Bartmann |
| FledgePOWER | Incubation | |
| FlexMeasures | Incubation | Maarten Mulder |
| Grid Capacity Map | Incubation | Boris Dolley |
| GXF | Early Adoption | Jonas van den Bogaard |
| Hyphae | Incubation | Antonello Monti |
| OpenEEmeter | Incubation | Carmen Best |
| OpenFIDO | Sandbox | Avi Allison |
| OpenGEH | Sandbox | Avi Allison |
| OpenLEADR | Incubation | Anne Tilloy |
| OpenSTEF | Incubation | Jonas van den Bogaard |
| OperatorFabric | Early Adoption | Boris Dolley |
| PowSyBl | Early Adoption | Anne Tilloy |
| Power Grid Model | Sandbox | |
| Real Time Data Ingestion Platform (RTDIP) | Sandbox | Art Pope |
| SEAPATH | Early Adoption | |
| Shapeshifter | Incubation | Jonas van den Bogaard |
| SOGNO | Early Adoption | Antonello Monti |
| | | |

New LF Energy Project Logos

For projects, we have logos you can use to illustrate being hosted at LF Energy. Grab the logos in multiple formats at https://artwork.lfenergy-project//



PROJECT

Big thanks to Dan Brown





TAC Meeting Agendas

We are moving to using GitHub Issues and Projects for managing TAC Meeting Agendas.

To add agenda items, go to

https://github.com/lf-energy/tac/issues/new/choose. We will be adding options for new projects/working groups in the coming weeks.

You can review the TAC Agenda at https://github.com/orgs/lf-energy/projects/2/views/1



SGAM update

We've done a first pass at this, see https://tac.lfenergy.org/sgam.

DISCUSSION: Review and provide feedback to improve.



Battery Data Alliance Proposal

5:15 pm - 5:30 pm



Battery Data Alliance

Simplifying battery data across the industry



What is the Battery Data Alliance?

A community of **software developers** and **battery engineers** who are building the **future of software services** for the battery industry.

Focusing the efforts of practitioners and organizations, creating the necessary environment to make change in the industry

Utilizing the proven model to get high-quality contributions from major industry players





We aspire to be like the above initiatives, for batteries

Key Problem

No clear standards, data formats or testing procedures leads to redundant work, slowing down progress

Value Add

- Faster and More Reliable Vendor Validation
- Improved Collaboration through Data Sharing
- Faster Battery Development & Sales
- Robust & Complete Software Architecture
- Unlock New Applications like Battery Passport

Areas of Interest

- 1. Collating the work of existing Open Source Battery Data efforts into a **cohesive Battery Data Landscape**
- 2. Define **Reference Architecture** that makes setting up a Battery Lab a breeze
- 3. Evangelize a Common Battery Data Schema and API to improve **vendor qualification**
- Harmonize all public battery data into a common format and made easily available through a public data
 catalog
- 5. Hosting Battery Data Competitions
- 6. Align with existing open source efforts:
 - o BPX
 - Battery Digital Twin
 - Battery Passport
 - Battery Data Genome
 - o Battery Archive

Why join Battery Data Alliance?

Value to Software Enterprise

- Get your platform and standards adopted by the development teams doing the work before someone else does
- Access and influence to new ideas and startups in the multi-billion dollar battery data market
- ESG and SDG impact

Value to Battery Businesses

- Sell reliable batteries faster
- Cut down on redundant work so you can focus on other objectives in your business
- Benefit from the ideas and progress of others in the community, don't be left behind

Value to Battery Engineers & Software Developers

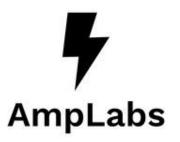
- Build alongside a community of developers to help make your life easier
- Contribute to the larger clean energy mission, write software that matters

Why **ILFENERGY**?

Linux Foundation has a proven track record of building and hosting projects that are widely relied on in the world, such as **Linux** and **Kubernetes**

LF Energy provides a vendor neutral home for any software, designs, and other IP generated by the community focused on the energy sector

Members









Our Next Steps

Join LF Energy

Finalize Areas of Interest with Members

Create Roadmap

Public Announcement

Begin Design Documentation

Develop

TROLIE Project Proposal

5:30 pm - 5:50 pm



Goals and Objectives Review

5:30 pm - 5:50 pm



2023 Strategic Goals and Objectives

- 1. Stable membership/projects
 - Maintain existing to \$1.2M USD annual revenue (
 membership, events and grants)
 - Have 4 projects move up a life cycle maturity stage. (2 completed)
- 2. Invest in our communities to drive success and better security
 - Host a developer conference
 - Ensure all projects have completed the OpenSSF Badge
 Requirements for their maturity level, are doing scans with
 LFX Security, and have correct contribution data on LFX
 Insights.
 - Every other TAC meeting hold a "best practices" session topic for maintainers, with invited guest speakers
 - Have all projects represented in the Smart Grid Model diagram and update to date Archimate functional architectures

- Increase visibility through strong Marketing/PR/Thought Leadership
 - Establish an Outreach Committee for members to participate in marketing planning
 - Revise website, with each project landing page reviewed and updated for accuracy
 - Conduct more research studies to guide our priorities and demonstrate our deep insights
 - Implement new tooling and processes to enable better communication
 - Build the bridge with the standardization world (IEC): reference implementations of standards should be naturally found in LFE. Combination of thought leadership (articles, webinars, speaking engagements, etc.) exploring the importance of open standards for energy and case study examples.
 - Why open source for energy webinars, PRs, blogs. Utilize our SMEs and their expertise to explain to skeptics in the energy sector why open source is the correct path forward.
 - Partner with energy industry events. Already in process with ongoing event tracker and frequent CFP submissions.

 A new MAC events subcommittee will explore deeper engagements.



Actions at the TAC

- Working to do



AI Strategy



Marketing/PR/Events Updates

6:10 pm - 6:25 pm



Marketing and PR Updates

dbrown@linuxfoundation.org +1 415-420-7880

- The Open Source Sustainability Ecosystem report with Open Sustainable Technology has been released
 - o <u>Marketing kit</u> please help spread the word
- Partnering with consortium organized by Anto to apply for an EU Horizon grant application due early October
 - Meetings taking place weekly
- Work continuing on cybersecurity for energy systems white paper
 - o Dan has seen early draft and provided some feedback; review copy should be ready soon
- <u>Series of blog posts</u> continuing providing summaries and video of all sessions at LF Energy Summit/Embedded Summit
- Recent media coverage
 - o <u>Canary Media California sees success tying energy efficiency rebates to real results</u>
 - EnergyPortal.eu The Impact of Open Source in Sustainability
 - Power Electronics The 2023 LF Energy report investigates the open-source sustainability ecosystem
 - Electronic Design What's Trending in Open-Source Embedded Systems?
 - o Gulf Oil & Gas LF Energy Research Finds Open Source Software is Driving Sustainability Innovation
 - FOSSLife Visualizing the Open Source Sustainability Ecosystem
 - Sustainable Tech Partner Sustainability and Green IT News for Technology Partners: 09 August 2023
 - EnergyCentral Research Report Reveals the State of Open Source Innovation for Sustainability
 - PRNewswire This Week in Energy News: 12 Stories You Need to See
- Use this <u>form</u> to submit any comms/marketing support requests



Marketing and PR Upcoming Activities

- Linux Foundation annual report
 - Preparing text for LF Energy section
- Preparing quarterly momentum press release to release during SustainabilityCon
- Scheduling onsite media interviews at SustainabilityCon
- Developing Seeed ReCharger case study with EVerest project (jointly with LF Zephyr project which is also used in the product)
- Preparing applications for OpenUK Awards program
 - Planning to submit RTDIP for Data category, and OpenLeADR and Shapeshifter each for Sustainability category
- Develop plan for engagement with standards bodies (IEC, IEEE, etc.)



Events

- OpenUK Open Source for Sustainability Day Sept 14, Edinburgh
 - O Dan will be speak in a plenary session focused on the three recent research reports
- LF Europe Member Summit Sept 18, Bilbao
 - o Invitation-only event taking place immediately prior to Open Source Summit; attendees are all employees of LF Europe member organizations
 - o LF Energy has been provided with an exhibit table at the event Dan will staff with help from Lucian and Jonas
 - Lucian to present plenary session on LF Energy momentum
- SustainabilityCon at Open Source Summit Europe Sept 19-21, Bilbao
 - o Proposals were ACCEPTED for four sessions:
 - Panel: How Open Source Collaboration is Transforming the Power Systems Sector
 - Session: More Renewable Energy Into the Power Grid with Open Source
 - Session: SEAPATH: A LF Energy Project for Critical Infrastructure with an Emphasis on Software Supply Chain Security
 - Panel: Advancing the United Nations Sustainable Development Goals through Open Source
 - o Associate Member EnAccess also will be presenting
 - Scheduling a meetup for any LF Energy community members onsite for the evening of Wednesday, 20 September
- LF Energy Summit 2024
 - MAC subcommittee specifically working on planning for the event met with LF Events team on 5 September
- <u>Event tracker</u> please review and add any additional opportunities



Upcoming Event CFPs

- Enlit Europe Nov 28-30 Rolling submission deadline
- Open Source Summit Japan Dec 5-6 Deadline Sept 10
- e-world Energy & Water Feb 20-22, 2024 Rolling submission deadline
- Carbon Tracking & Reporting March 26-27, 2024 Rolling submission deadline
- Energy Thought Summit April 15-18, 2024 Rolling submission deadline
- CIRED Vienna June 19-20, 2024 Submissions open Sept 11, close Dec 8
- <u>MOVE London June 19-20, 2024 Rolling submission deadline</u> (for this one, we should email <u>cormac.martin@terrapinn.com</u> with speaking proposals)



KPIs to Demonstrate Progress

We would like to start measuring and reporting on some KPIs that would help us demonstrate LF Energy's impact, but currently lack requisite data:

- Number of implementations
- Case studies demonstrating measurable benefits from implementations (e.g. reduction in emissions)
- Progress on digital transformations driven by LF Energy projects within utilities
- Others?

What ideas does this group have for sourcing this data?



Closing and Next Meeting

6:25 pm - 6:30 pm



Next TAC Meeting

The next meeting of the LF Energy TAC is scheduled for 26 September 2023 at 8:00 am US Pacific Time/11:00 am US Eastern Time/5:00 pm Central European Time. Agenda will include:

- Recap of last TAC Meeting
- GRIP New Project Proposal
- GXF Annual Review
- Marketing/PR/Events update



JLFENERGY