Technical Advisory Council (TAC) Meeting

4 June 2024



Meeting information

- → Meeting to begin at 5:00 pm Central European Summer Time
- → Join the meeting at the link in your calendar in <u>LFX Individual Dashboard</u>
- → 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



Antitrust Policy Notice

Linux Foundation meetings involve participation by industry competitors, and it is the intention of the Linux Foundation to conduct all of its activities in accordance with applicable antitrust and competition laws. It is therefore extremely important that attendees adhere to meeting agendas, and be aware of, and not participate in, any activities that are prohibited under applicable US state, federal or foreign antitrust and competition laws.

Examples of types of actions that are prohibited at Linux Foundation meetings and in connection with Linux Foundation activities are described in the Linux Foundation Antitrust Policy available at linuxfoundation.org/antitrust-policy. If you have questions about these matters, please contact your company counsel, or if you are a member of the Linux Foundation, feel free to contact Andrew Updegrove of the firm of Gesmer Updegrove LLP, which provides legal counsel to the Linux Foundation.



Agenda

All Times in Central European Time Zone

- 5:00 pm 5:10 pm Opening and General Updates
 - o TAC member updates and project review date reminders
 - General updates
 - Open Sustainability update
 - Project Security Focus updates
 - Other Updates
- 5:10 pm 5:30 pm TAC Evolution Plan Update
- 5:30 pm 5:40 pm Energy IoT Open Source Update
- 5:40 pm 6:00 pm OpenGEH Annual Review
- 6:00 pm 6:20 pm FledgePOWER Annual Review
- 6:20 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 - 5:10 pm



TAC Voting Members

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



Antonello Monti Chair

Professor **RWTH Aachen** University

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



Art Pope

Member of Technical Staff Google LLC



Boris DOLLEY Director of OSPO and Sustainable IT

Strategy RTE (Reseau de Transport dElectricite)



Travis Sikes Senior Data Scientist

Recurve



Bryce Bartmann Bogaard **Chief Digital** Technology Advisor Open Source Office

Shell International **Exploration &** Production, Inc.

Lead Alliander



Jonas van den Maarten Mulder

PO Field Device **Platforms** Alliander



Yixing Xu Microsoft Corporation



LF Energy Hosted Project Leads

Project	Project Lead(s)		
PowSyBI	Anne Tilloy, RTE		
OperatorFabric	Frederic DIDIER, RTE		
OpenEEmeter	Travis Sikes, Recurve		
GXF	Maarten Mulder, Alliander		
	Antonello Monti, RWTH Aachen University (TAC		
	Representative) & Fito Galeano, RWTH Aachen		
SOGNO	University		
	Pascal Wilbrink Alliander & Sander Jansen,		
CoMPAS	Alliander (TAC Representative)		
FledgePOWER	Akli Rahmoun, RTE		
Hyphae	Asimenia Korompili, RWTH Aachen University		
openLEADR	Stan Janssen, OpenADR		
SEAPATH	Éloi Bail, Savoir-faire Linux		
Grid Capacity Map	Harald Klomp, Vattenfall		
Shapeshifter	Robben Riksen, Alliander		
OpenSTEF	Frank Kreuwel, Alliander		

Project	Project Lead(s)
EVerest	Marco Möller, PIONIX
OpenGEH	Nicolas Bernhardi, Energet
FlexMeasures	Nicolas Höning, Seita Energy Flexibility B.V.
Arras	David Chassin, SLAC
Dynawo	Marco Chiaramello, Benoît Jeanson, RTE
OpenFIDO	David Chassin, SLAC
Power Grid Model	Tony Xiang, Alliander
Real Time Data Ingestion Platform (RTDIP)	Bryce Bartmann, Shell
TROLIE	Christopher Atkins, MISO Energy
Battery Data Alliance	Gabe Hege, AMPLabs
GRIP (Grid Resilience and Intelligence Platform)	Alyona Teybar, MASc



Project & Working Group Leads

Project	Project Lead(s)
Open Sustainable Technology	Tobias Augspurger, Protontypes
CitrineOS	Thana Paris, S44
covXtreme	Sachin Bhakar, Shell
Synthetic Energy Data	Gus Chadney, Centre for Net Zero
OpenSCD	Sander Jansen, Alliander
NODE Collective	DeAndrea Salvador
InterConnect SIF (Semantic Interoperability Framework)	Milenko Tosic, VizLore Labs
OneNet Framework	

Working Group	Work Group Lead(s)
Al Working Group	Alexandre Pariost, The Linux Foundation
Archimate Working Group	Jonas van den Bogaard, Alliander
DSAS (Digital Substation Automation Systems)	Ben van 't ende
ORES (Open Renewable Energy Systems)	Chris Xie, Futurewei



Project Review Cycle

2024 Reviews				
Project Current Level		Initially Accepted	Last Review Date	Next Review Date
OpenGEH	Sandbox	October 12, 2021	October 4, 2022	June 4, 2024
FledgePOWER	Incubation	February 11, 2021	March 21, 2023	June 4, 2024
Compas	Incubation	May 5, 2020	July 13, 2022	June 25, 2024
OperatorFabric	Early Adoption	April 30, 2019	July 25, 2023	July 16, 2024
Arras	Sandbox	July 12, 2022	July 25, 2023	July 16, 2024
TROLIE	Incubation	September 5, 2023		September 3, 2024
Battery Data Alliance	Incubation	September 5, 2023		September 3, 2024
GXF	Early Adoption	February 4, 2020	September 26, 2023	September 24, 2024

2024 Reviews					
Project	Current Level	Initially Accepted	Last Review Date	Next Review Date	
Open Sustainable Technology	Sandbox	October 17, 2023		October 4, 2024	
Grid Capacity Map	Incubation	April 27, 2021	October 17, 2023	October 4, 2024	
OpenEEmeter	Incubation	June 4, 2019	October 17, 2023	October 4, 2024	
OpenSTEF	Incubation	September 21, 2021	October 25, 2022	November 5, 2024	
FlexMeasures	Incubation	November 2, 2021	November 28, 2023	November 19, 2024	
PowSyBI	Early Adoption	April 30, 2019	November 28, 2023	November 9, 2024	
CitrineOS	Sandbox	November 28, 2023		November 19, 2024	
SEAPATH	Early Adoption	October 6, 2020	December 19, 2023	December 10, 2024	
covXtreme	Sandbox	December 19, 2023		December 10, 2024	

Working Groups				
Group	Current Level	Initially Accepted	Last Review Date	Next Review Date
Archimate Working Group	Active	October 4, 2022	November 28, 2023	October 29, 2024
Al Working Group	Working Group	January 25, 2022		TBD
ORES (Open Renewal Energy Systems)	Working Group	March 12, 2024		March 25, 2025
Digital Substation Automation Systems (DSAS)	Working Group	April 2, 2024		April 15, 2025

Project Review Cycle

2025 Reviews					
Project	Current Level	Initially Accepted	Last Review Date	Next Review Date	
EVerest	Early Adoption	October 12, 2021	January 9, 2024	January 7, 2025	
Synthetic Energy Data	Sandbox	January 9, 2024		January 7, 2025	
OpenSynth	Sandbox	January 9, 2024		January 7, 2025	
Dynawo	Sandbox	December 6, 2022	January 30, 2024	January 21, 2025	
OpenFIDO	Sandbox	January 17, 2023	January 30, 2024	January 21, 2025	
RTDIP	Sandbox	October 25, 2022	January 9, 2024	January 28, 2025	
OpenSCD	Sandbox	January 25, 2024		January 28, 2025	
Hyphae	Incubation	December 8, 2020	February 20, 2024	February 11, 2025	
Power Grid Model	Sandbox	February 7, 2023	February 20, 2024	February 11, 2025	
SOGNO	Early Adoption	October 27, 2020	March 21, 2023	March 25, 2025	
NODE Collective	Sandbox	April 2, 2024		March 25, 2025	
InterConnect SIF (Semantic Interoperability Framework)	Sandbox			April 15, 2025	
Shapeshifter	Incubation	April 6, 2021	May 14, 2024	May 6, 2025	
OneNet	Incubation	May 14, 2024		May 6, 2025	

Project Security Focus updates

- Ensure all projects up to date with OpenSSF Best Practices Badge per their maturity level
- Implement OpenSSF Scorecard for all projects to measure security posture.
- Review license scans and remedy open issues
- Security Audits for all 'Early Adoption' stage projects



Early Adoption Projects

Must have a badge at the silver level.













Incubation Projects

Must have a badge at the passing level.



















openssf best practices passing

openssf best practices passing

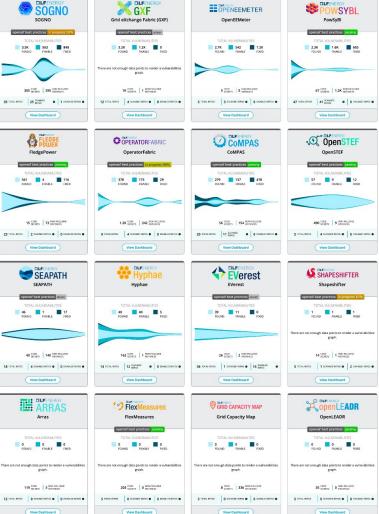
openssf best practices passing

Current OpenSSF Best Practices Badge status (3 projects out of compliance)

ACTION: Projects in red boxes need review (source https://tac.lfenergy.org/projects_with_bestpractices)



ACTION: John to review and debug issues.



OLFENERGY

All current projects accepted before 12/1 had license scans done at the end of December

ACTION: Review latest license scans sent from Jeff Shapiro and address open issues



Jeff Shapiro < jshapiro@linuxfoundation.org>

LF Energy - SEAPATH License Scan and Findings - Dec 2023

To: SEAPATH-TSC <SEAPATH-TSC@lists.lfenergy.org> Cc: & 1 more

December 29, 2023, 10:19 PM

Hi Team.

Here are the results from the December 2023 license scan of the SEAPATH project. The scan was performed using the Linux Foundation Fossology server. Licenses and copyrights were examined.

The key findings (if any) and license summary can be found in the HTML report, the list of files in the spreadsheet, and also find the SPDX file listed below:

NOTE: I recommend that SPDX license identifiers be added to ALL source file headers. [see https://spdx.dev/learn/handling-license-info for examples]

NOTE: There are high priority key findings, please address these as soon as possible:

Finding #1

Priority: High

These files have an Apache-2.0 notice, but they also contain a comment indicating that they contain code from a thirdparty GPL v2 project.

The GPL v2 license is generally understood as prohibiting GPL v2 code from being incorporated into another work under a different license. The GPL v2 code from the upstream project should likely be removed and rewritten without using that project's code. 4 files

Finding #2

Priority: High

These files indicate that they contain content (or refer to a 3rd party dependency) under a version of the LGPL, typically seen as a weak copyleft license. Although LGPL content can be used in compatible ways with Apache-2.0 projects, its code should not be intermingled with code that needs to remain Apache-2.0, and it imposes some requirements that users of an Apache-2.0 project may not expect. The project may want to remove these files and replace them with permissively-licensed alternatives if that is feasible.

4 files

Finding #3

Priority: High

These recipes appear to contain some patches and code files that are under GPL-2.0, a strong copyleft license which is typically seen as incompatible with Apache-2.0 in many instances.

This may be okay, to the extent that the recipe is patching a GPL-2.0 project. However, for the patches / files that are GPL-2.0, will these be interacting with the project's Apache-2.0 code?

14 files

Finding #4 Priority: High

These flies are under a GPL license which may conflict withj your project license, especially if they are source code that is integrated with other code. Unless they are 100% separate and stand-alone, they need to be removed from your repo.

12 flies

REPORTS:

Ifenergy/seapath, code pulled 2023-12-23

- report: https://lfscanning.org/reports/lfenergy/seapath-2023-12-23-1eed5565-a64d-4d91-a21f-645536f1a512.html
 xlsx: https://lfscanning.org/reports/lfenergy/seapath-2023-12-23-1eed5565-a64d-4d91-a21f-645536f1a512.xlsx
- spdx: https://github.com/lfscanning/spdx-lfenergy/tree/master/seapath/2023-12/seapath-2023-12-23.spdx

Please feel free to contact me with any questions about the scan results. Be sure to reply to me directly as I may not get an email sent directly to the distribution list.

Thanks, Jeff

Security Audits through Open Source Technology Improvement Fund.

Priority Focus for 'Early Adoption' projects

In progress:

- SEAPATH in progress
- OperatorFabric in progress
- PowSyBL reviewing proposals
- EVerest kickoff in late Q2/early Q3 2024

TODO:

- GXF
- SOGNO

Next focus is on Incubation projects.

ACTION: Remaining 'Early Adoption' projects get lined up for scans; identify any 'Incubation' projects next.

OSTIF.org



The Open Source Technology Improvement Fund is a corporate non-profit dedicated to **securing open source apps** that we all depend on. Securing software isn't easy, and we know what it takes to succeed. By facilitating security audits and reviews, OSTIF makes it easy for projects to significantly improve security.

Other updates

- LFX Meeting Management Transition 14 projects transition, 7 to go (<u>#39</u>)
- Access to Github Actions large runners (#146)
- Certified Open Source Developer in the Enterprise Exam (<u>#130</u>)
- Whiteboard Tool for Project Collaboration (<u>#128</u>)
- No maintainer for OpenLEADR (<u>#24</u>)



TAC Evolution Plan update

5:10 pm - 5:30 pm

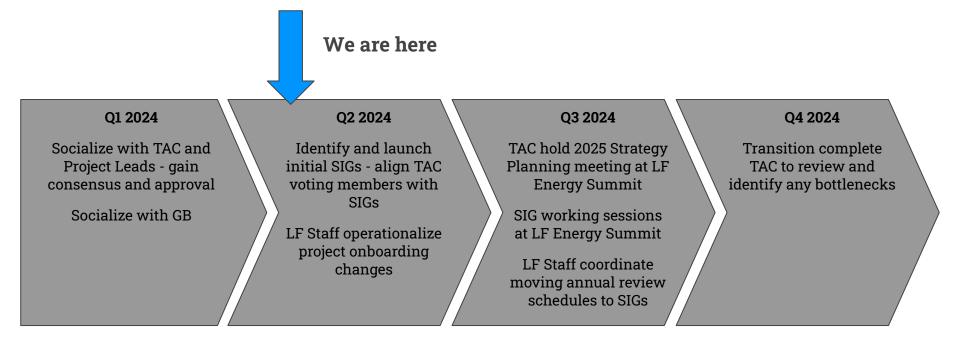


Agenda

- Timeline
- Project onboarding proposed changes
- Project Alignment
- SIG Alignment
- Next Steps



Timeline



Complete transition by Q4



Project onboarding proposed changes

Proposed Project Onboarding Timeline

TAC reviews and approves onboarding

Project Agrees to Technical Charter and Contribution Agreement

LF Energy TAC approves into Sandbox

LF Energy TAC approves into Incubation

Project Proposal Submission

I.F Onboarding

LF Energy Sandbox Onboarding

LF Energy Incubation Onboarding

- Add to PCC
- Submit LF Project intake form (LF Staff)
- Share Instructions Sheet

- Project publicly referenced as a 'LF Project'
- GitHub Repo setup • Intake code scan
- Domain transfer
- Other accounts/tools transfer
- LFX Tools onboarding
- TSC formation

- Project publicly referenced as in the 'LF Energy Sandbox'
- PCC move under LF Energy
- Setup Mailing Lists, Slack, Wiki
- Schedule ongoing license scans
- Staff quarterly check ins
- Create Logo, lfenergy.org landing page
- LFE Announcement

- Project publicly referenced as an 'LF Energy Project'
- Staff annual check ins



LF Energy Project Proposal process

- → <u>Project Proposal Submission</u> completed by prospective project members (same form as today)
 - ◆ TAC members review and approve to onboard project
- → LF Energy staff / LF Project Formation team creates legal entity
 - ◆ LF Energy staff adds to internal systems
 - Socialize Technical Charter, Project Contribution Agreement, and Series Agreement with Project.
 - Setup meeting to review with the project (if needed).
 - Have Technical Charter approved, Project Contribution Agreement executed, and Series Agreement filed
- → Onboard project into the LF
 - ◆ Setup GitHub organization
 - Transfer domain names and any other accounts.
 - ◆ Intake code scan
 - Setup LFX tools

TILFFNFRGY

◆ Coordinate TSC Formation

LF Energy Sandbox approval process

- → LF Energy staff validates project intake activities are completed
 - Project Proposal
 - ◆ LF Project Onboarding
- → LF Energy staff coordinates Project Presentation meeting
 - ♦ 30 minutes maximum
 - ◆ TAC voting members can attend, but not required to attend.
 - Recording/materials made available to TAC voting members.
- → TAC Chairperson opens two week review period
 - Discussion via email, but add to TAC meeting agenda or hold a separate meeting if desired
 - Any concerns/questions should be raised during this period
- → Approval
 - If there are no concerns/questions raised during the two week period, then the project is admitted into the LF Energy Sandbox.
 - If there are concerns/questions raised, those must be resolved during a private TAC discussion, and then a formal vote will be taken.
- → LF Energy Onboarding
 - Setup communication tools (Mailing Lists, Slack)
 - ♦ Add to code scanning schedule
 - ◆ Create logo and web page on lfenergy.org
 - Announce as part of LF Energy Sandbox in a blog post, newsletter, and momentum announcement.
 - Setup LF Energy Staff quarterly check ins



LF Energy Incubation/Early Adoption/Graduation approval process

- → Project proposes to their primary SIG that they would like to move to the next lifecycle stage.
 - Can be part of their annual review or any other time.
- → SIG reviews to ensure requirements are met.
- → SIG, via the TAC representative(s) assigned to the SIG, proposes to the TAC to review during an upcoming TAC meeting.
- → Project presents at an upcoming TAC meeting.
- → TAC members review and approve
 - Can be in person or following the meeting via email or in a private meeting if further discussion is required.
- → Onboarding
 - Announce as an LF Energy Project in a blog post, newsletter, and momentum announcement.
 - Setup annual LF Energy Staff check ins.



Project Alignment

Project Alignment

Considerations

- Assess areas of alignment
- Project maturity vs current lifecycle stage
 - Several projects are likely not in the right stage based on the requirements for that stage.
- Aligning LFESS WGs to SIGs

LF Energy Projects - Early Adoption (6)













LF Energy Projects - Incubation (10)





















LF Energy Projects - Sandbox (8)

















NODE Collective OpenSynth covXtreme Open Sustainable Technology OpenFIDO

LF Energy Standards and Specifications (LFESS) Working Groups (3)









Proposed changes

Move to Emeritus

- Hyphae
 - Needs OpenSSF Best Practices badge at 'passing' level
 - No code in repo
- OpenLEADR
 - No maintainer
- OpenGEH
 - No code in repo, and unclear timeline on when it will come
- Open Sustainable Technology
 - Disengaged project leaders and little traction

ACTION: Align on proposed changes.



Move from Sandbox to Incubation

- RTDIP
 - Once Technical Charter is done
- OpenSCD
 - Has been part of CoMPAS in the past
 - Needs to complete OpenSSF Best Practices badge at 'passing' level

Move from Early Adoption to Incubation

- SOGNO
 - Needs OpenSSF Best Practices badge at 'silver' level

Move to LFESS Working Group

- TROLIE
 - Actually is a standards project
- ORES WG
 - Actually is a standards project

SIGs Alignment

Two types of SIGs

Topical

- Align around a specific sector or area where projects have commonality
- Examples could be EV, Grid Automation, etc
- Each project must have a liaison to a vertical SIG
 - Projects may participate in multiple vertical SIGs

Cross-project

- Cross-functional across topics that have impacts in the majority of the projects
- Examples could be AI, Security,
 Developer Experience.



SIG and TAC Roles

SIGs are responsible for

- Electing a Chairperson
- Holding regular meetings (LF Staff to support)
- Coordinating annual reviews of projects
 - Only required to hold an annual review in the primary SIG the project has a liaison for.
- Recommending to the TAC projects that should be considered to move to a different lifecycle stage.

TAC is responsible for

- Establishing new SIGs and decommissioning SIGs deemed no longer relevant or operating.
- Appointing TAC voting members serve as a liaison to a SIG.
 - Each SIG must have a TAC voting member liaison.
 - Responsibilities for the TAC voting member liaison include:
 - Regularly attend SIG meetings
 - Provide reports to the TAC on key activities and progress
- Reviewing SIG progress on regular basis



Grid Operations

- OperatorFabric
- Grid eXchange Fabric (GXF)
- SOGNO
- Shapeshifter
- Real Time Data Ingestion

 Platform (PTDID)
 - Platform (RTDIP)
- FledgePOWER*
- FlexMeasures

EV Charging

- CitrineOS
- EVerest

Digital Substations

- CoMPAS
- OpenSCD
- SEAPATH
- FledgePOWER*

* denotes project appearing in multiple categories

Inactive

- Hyphae
- OpenGEH
- Open Sustainable Technology
- openLEADR

Grid Simulation and Modeling

- Dynawo
- Power Grid Model
- PowSyBl
- Arras
- OpenSTEF
- Grid Resilience and Intelligence Platform (GRIP)
- covXtreme
- Grid Capacity Map

Data Standards and Tooling

- Carbon Data Specification (CDS)
 WG1: Customer Data*
- Carbon Data Specification (CDS)
 WG2: Power Systems Data
- TROLIE
- Battery Data Alliance
- NODE Collective
- Super Advanced Meter (SAM)
- OpenEEMeter
- OpenSynth



Transitioning existing WGs to SIGs

- Archimate
 - Transition from existing Archimate WG
- AI
 - o Already a SIG
- Digital Substation Automation Systems (DSAS) WG
 - o Transition to SIG
- ORES WG
 - Move to LFESS WG

Discontinue Working Groups in LF Energy (only have LFESS Working Groups)



Next Steps

Next Steps

TAC

- Align on SIGs and identify SIG leader(s).

LF Staff

Revise Project Lifecycle as needed to support onboarding changes.



Energy IoT Open Source Update

5:30 pm - 5:40 pm



OpenGEH Annual Review

5:40 pm - 6:00 pm



FledgePOWER Annual Review

6:00 pm - 6:20 pm



Marketing/PR/Events Updates

6:20 pm - 6:25 pm



Marketing and PR Updates

- <u>Open Sustainability Policy Summit</u> positive feedback across the board from attendees
- Open EV Charging Summit 15-16 May, Texas Instruments Campus, Dallas, TX
 - We hit capacity for this event so registration was closed May 9
- <u>LF Energy Summit 2024</u> 5-6 Sept, Marriott Grand Place Brussels
 - Sponsorship prospectus now available please consider sponsoring and reach out to Alex with questions or to discuss options
 - o <u>CFP</u> is open through May 19
- <u>PowSyBl webinar</u> scheduled for 3 June
- <u>Power Grid Model Meetup</u> scheduled for 6 June
- CDSC webinar tentatively scheduled for 26 June (TBA soon)
- Content
 - Open source for vertical industries white paper will be ready to publish in May
 - Kicking off a Digital Substation Automation white paper later in May
- Use this <u>form</u> to submit any comms/marketing support requests



Upcoming Event CFPs

- NARUC Summer Policy Meeting July 14-17, 2024, West Palm Beach, FL Rolling submission deadline
- PAC World Americas Conference August 12-15, 2024, Raleigh, NC Submissions due May 31
- Open Source Summit Europe September 16-18, 2024, Vienna Submissions due April 30
- LF Energy Summit September 5-6, 2024, Brussels Submissions due May 19
 - Includes project demos which will take place in the exhibit area these should be submitted through the CFP
- Climate Week NYC September 22-29, 2024, New York Submissions due June 30
- National Clean Energy Week September 23-27, 2024, Washington, DC Rolling submission deadline
- Enlit Europe October 22-24, 2024, Milan Rolling submission deadline
- <u>CIGRE National Conference GRID OF THE FUTURE November 11-14, 2024, Raleigh, NC Paper submission deadline is August 5</u>
- Climate Tech Show November 27-28, 2024, London Rolling submission deadline
- <u>DISTRIBUTECH March 24-27, 2025, Dallas, TX Submission deadline is June 3</u>
 - o <u>Utility University (4 or 8 hour tutorials) is also accepting submissions through June 3</u>



Closing and Next Meeting

6:25 pm - 6:30 pm



Next TAC Meeting

The next meeting of the LF Energy TAC is scheduled for 25 June 2024 at 8:00 am US Pacific Time/11:00 am US Eastern Time/5:00 pm Central European Time. Agenda will include:

- General Updates
- CoMPAS Annual Review
- Marketing/PR/Events update

To add agenda items, go to https://github.com/lf-energy/tac/issues/new/choose. You can review the TAC Agenda at https://github.com/orgs/lf-energy/projects/2/views/1



APPENDIX

Marketing and PR Updates



Governing Board CONFIDENTIAL

Recent Media Coverage

- TFIR Energinet harnesses data and open source to drive the Green Energy transition
- North American Clean Energy LF Energy Releases Annual Report, Exploring Community Progress in 2023
- TFIR Washington DC to host Open Sustainability Policy Summit to find ways to combat climate change
- Climate Tech Review 2023 LF Energy Annual Report
- North American Clean Energy Linux Foundation Energy Announces New Open Source Initiatives for Substation Digitalization, Energy AI and Data, and More
- Power Electronics News LF Energy launches open source substation digitalization, energy AI and data initiatives
- Sustainable Tech Partner Sustainability News 17 April 2024: Coolset, Cozero, Deloitte, KPMG, Sumday, More
- Energi Strategi Podden Episode 246: Jonas Van Den Bogaard, Alliander
- TFIR Carbon Data Specification Consortium helps drive climate solutions with carbon data standardization
- Forbes Utilidata's AI Sharpens The Grid's Edge
- TFIR LF Energy leads digitalization efforts to tackle decarbonization challenges
- TFIR LF Energy expands its project and working group portfolio
- Environmental Modelling & Software covXtreme: MATLAB software for non-stationary penalised piecewise constant marginal and conditional extreme value models
- North American Clean Energy Hydro-Québec Demonstrates Commitment to Open Source for the Energy Transition with Membership in Linux Foundation Energy



JLFENERGY