



# TAC Meeting

31 August 2021

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# TAC Voting Members

Boris Dolley	RTE (Reseau de Transport dElectricite)	OperatorFabric TSC Chairperson
Anne Tilloy	RTE (Reseau de Transport dElectricite)	PowSyBI TSC Chairperson
Phil Ngo	Recurve	OpenEEmeter TSC Chairperson
Arjan Stam	Alliander	Membership Entitlement
Jonas van den Bogaard	Alliander	GXF TSC Chairperson
Benoît Jeanson	RTE (Reseau de Transport dElectricite)	Membership Entitlement
Ken Dulaney	FREEDM Systems Center - NCSU	RIAPS TSC Chairperson
Antonello Monti	RWTH Aachen University	SONGO TSC Chairperson TAC Chairperson

# LF Energy Hosted Project Leads

Project	Project Lead(s)
PowSyBI	Anne Tilloy, RTE
OperatorFabric	Boris Dolley, RTE
OpenEEmeter	Phil Ngo, Recurve
RIAPS	Ken Dulaney, NC State University
GXF	Jonas van den Bogaard, Alliander
SOGNO	Antonello Monti, RWTH Aachen University
EM2	<i>none</i>
CoMPAS	Frederic Fouseret, RTE
FledgePOWER	Akli Rahmoun, RTE
Hyphae	Kotaro Jinushi, Sony ESL
openLEADR	Lonneke Driessen & Stan Janssen, OpenADR
SEAPATH	Eloi Bail, Savoir-faire Linux
Grid Capacity Map	<i>none</i>
Shapeshifter	<i>none</i>

# Agenda

## Opening (5 Minutes)

- **Summary of last TAC meeting & Updates from the Board Meeting**

## TAC Business (60 Minutes)

- PowSyBI Annual Review
- RIAPS Emertius proposal
- Security WG proposal update
- Sandbox stage
- Working Group/SIG work licensing

## Events & Marketing Update (5 Minutes)

- Project video interviews

## Open Discussion (15 Minutes)

## Closing and next meeting (5 Minutes)

# Summary of last TAC meeting

- Meeting notes and deck at <https://wiki.lfenergy.org/display/HOME/Technical+Advisory+Council#TechnicalAdvisoryCouncil-MeetingMinutes>

## Updates from the Board

# Upcoming community meetings of interest

- Please share others!

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# Annual Review for PowSyBI

# Early adoption Project review criteria assessment

- Demonstrate growth in the project's community, including
  - Growth in the number of commits to the project, number of project committers, and organizational diversity of contributions and committers: *achieved, work in progress.*
  - Production or planned production use of the project by at least two independent end users which, in the TAC's judgement, are of adequate quality and scope: *achieved.*
- Technical Governance of the project is operational, as measured by:
  - A Technical Steering Committee with at least 5 members and a chairperson elected by the members, holding regular open meetings: *achieved.*
  - Achievement of the Core Infrastructure Initiative Best Practice badge at the 'Passing' Level: *achieved.*
- Development of a growth plan, to be done in conjunction with their project mentor(s) at the TAC. This plan should address the following points:
  - Release plans for the next 18 months: *achieved.*
  - Target end-users: *achieved.*
  - Identification of any regulatory or standards body requirements for deployment, and plans for implementation: *not required for Powsybl.*
  - Plans for growth of project contributors and committers to support the growth plan: *see in next slides.*

# Graduation Project acceptance criteria assessment

- Have a defined governing body of at least 5 or more members (owners and core maintainers), of which no more than 1/3 is affiliated with the same employer. In the case there are 5 governing members, 2 may be from the same employer: *no, we are for a majority from RTE.*
- Have fulfilled or are on track to complete the growth plan defined in the Early Adoption stage proposal: *see in next slides.*
- Have a healthy number of contributions or committers from at least three organizations, with any one organization not composing more than 50% of the contributions or committers. Committers must be identified within the project in a COMMITTERS file: *partially validate. Most of the commits come from RTE.*
- Have a public list of project adopters for at least the primary repo (e.g., ADOPTERS.md or logos on the project website: *yes with logos in [Power System Blocks \(powsybl.org\)](https://powsybl.org)*
- Achievement of the Core Infrastructure Initiative Best Practices badge at the Gold level: *85% after passing level (15% missing for silver and 100% missing for gold).*
- Present to the TAC and the Governing Board on the fulfillment of these requirements: *done, difficult to reach (security part (vulnerability testing) and signature of tags).*

# Powsybl

## Brief Description:

A set of power system blocks for grid analysis and simulation: grid modeling, exchange formats, grid simulation, visualization, time series management, etc.

## TSC Chairperson:

Anne Tilloy [anne.tilloy@rte-france.com](mailto:anne.tilloy@rte-france.com)

## TSC Members and Affiliations:

<https://www.powsybl.org/pages/overview/governance/>

## Contributed by:

Contribution organization ?

## Key Links:

**Github:** <https://github.com/powsybl>

**Website:** <https://www.powsybl.org/>

## Mailing lists:

- [powsybl@lists.lfenergy.org](mailto:powsybl@lists.lfenergy.org)
- [powsybl-announce@lists.lfenergy.org](mailto:powsybl-announce@lists.lfenergy.org)
- [powsybl-tsc@lists.lfenergy.org](mailto:powsybl-tsc@lists.lfenergy.org)

## CII Badge URL:

<https://bestpractices.coreinfrastructure.org/fr/projects/4795>

## Slack for technical discussions:

<https://www.powsybl.org/pages/community/>

# Contributions



**788.14K**

Lines Of Code Changed



**779**

Commits



**44**

Contributors



**1**

No Of Sub Projects



**29**

Repositories



## Top 10 Contributors By Commits

[View All](#)

NAME	LINES OF CODE	COMMITTS	%
ralambotianamio	35.74K	115	4.53%
Florian Dupuy	8.68K	98	1.10%
yichen88	11.30K	62	1.43%
Sylvain Leclerc	10.05K	49	1.28%
Geoffroy Jamgot...	21.72K	47	2.76%
Anne Tilloy	5.38K	44	0.68%
Bertrand Rix	8.91K	41	1.13%
Thomas ADAM	13.00K	40	1.65%
Coline Piloquet	3.17K	35	0.40%

## Top 10 Organizations By Commits

[View All](#)



- RTE (Reseau de Transport dElectricite)
- Unknown - No Account
- Individual - No Account
- Motorola Mobility, Inc.

# Organizations contributing and/or using in production

- RTE: contributing and using in production for internal softwares, for RSC CORESO.
- AIA: contributing on CGMES importer and use it in HELM Flow ([Home - Grupo AIA - Algoritmos para un mundo mejor](#)).
- Expected soon: Artelys ([Home | Artelys](#)).
- Many users for prototypes (students, reseach, ACER ([Home | www.acer.europa.eu](#)), etc.) ; how to trace these users? We know we have occasional users because we have questions in our Spectrum. We don't know exactly for which purpose they use PowSybl and we think that we have users without any question 😊
- Some pythons users but not for industrial software; we expect to have contributions in Python next year.

# Growth plan

- Commits and committers: we are already 8 committers and members of the TSC. We are going to increase the number of committers and organize elections for TSC. We hope to have new committers from another compagny.
- Release every 6 weeks, but no roadmap that links the next releases. We have planned to make it for the next 6 months only.
- Target end-users: we are more working on what could make Powsybl singular.
  - Security of the network: contingency analysis and actions (included complex automatons)
  - Dynamic simulations (with Dynawo [Home | Dynawo \(dynawo.github.io\)](https://dynawo.github.io/))
  - Multi-cases analysis for long-term studies based (optimizer Metrix)
  - Opening Powsybl to real-time or assets management (scenario builder)
- How to find collaborations ?
  - We develop features that don't benefit directly RTE: PSSE converter, Open Loadflow, Powerfactory importer, European Merging Function.
  - We are available to help new users.

# Key Achievements in the past year

- European Merging Function based on CIM-CGMES format
- Open Loadflow: an industrial power flow for TSOs with also security analysis and sensitivity analysis
- A python binding based on GraalVM
- A PSSE importer
- CGMES 3.0 (WIP)
- CIM-CGMES exporter
- Metrix for multi-cases studies
- An industrial release process
- Only CGMES EQ importer + operation namespace support + relaxed validation for IIDM network
- More than one year of TSCs (one per month). Join us!
- POC on a time series store for scenario builder



# Areas the project could use help on

- Viewer: network/schematic visualisation and single line diagrams of substations
- Security of the network: contingency analysis and actions (including complex automations)
- Mapping of time series on a network and time series storage in Cassandra (or else ?)
- Opening PowSybl for real-time or assets management (also called scenario builder)
- Three phase analyses (symmetrical and asymmetrical short-circuits) with Alliander ?
- Badging: how to reach silver and gold badges, especially for security requirements (vulnerability testing) ?
- Sogno with the CGMES, the state estimation and the python binding

# Feedback on working with LF Energy

- LF Energy provides a clear governance to which all contributors accepted to abide.
- LF Energy provides methodology and a clear way of working efficiently and in good collaboration. The code of conduct is quite new for some developers.
- Badging leads the project to be always clean, serious and challenging. And we can provide a clear list of criteria to improve our methods and our project.
- Other projects: we have been in touch with Alliander and with Sogno. We still need to work with our colleagues to put in Powsybl some key features that could lead to a collaboration.

# TAC Open Discussion



# RIAPS Emeritus proposal



# Security WG Proposal

# Security WG - Purpose

The purpose of the Security WG is to have a center of gravity for discussions and thought leadership within the energy sector on software security, which will create the standard approach from software security as the industry evolves and the use of open source continues to grow. This will provide market education on pressing topics such as the software supply chain, which will ensure that solutions can be developed in a secure and safe manner.

The group intends to work cross-functionally across LFE, but also bring in and leverage expertise from other groups such as CNCF.

# Security WG - Goals/Non-Goals

## Goals

- Bring member's organization's best practices internally on software security into a vendor-neutral public discussion.
- Capture the industry challenges in software security, especially those coming to light with the energy transition.
- Succinctly define software security as it applies to the industry.
- Coaching and guidance to hosted LFE projects on software security best practices and recommendations on resources for projects.

## Non-goals

- Not leveraging existing software security standards or collaborating with other software security efforts. (i.e. reinventing the wheel ).

# Security WG - Deliverables

- Framework for security in open source projects in LFE ( work to be done by postdoc ).
- Training and education resources for use by projects and members.
- Resources for projects to pass the security requirements outlined in the CII Best Practices badge.



# Security WG - Next Steps

## Phase 1:

- Collect resources on Wiki page
  - Definition & Challenges
  - Best practices
  - <https://wiki.lfenergy.org/display/HOME/Security+Working+Group>
- Compile a list of interested members

## Phase 2:

- Deliverables
  - 1) Describe the problem
  - 2) Describe the LFE solution derived from similar efforts

## Phase 3:

- Implementation (select test project, develop training material)

# Project Review Cycle

Project	Current Level	Initially Accepted	Last Review Date	Next Review Date
PowSyBI	Early Adoption	April 30, 2019		August 31, 2021
<b>OpenEEmeter</b>	<b>Incubation</b>	<b>June 4, 2019</b>		<b>September 21, 2021</b>
<b>EM2</b>	<b>Early Adoption</b>	<b>June 4, 2019</b>		<b>September 21, 2021</b>
GXF	Early Adoption	February 4, 2020		October 12, 2021
SEAPATH	Incubation	October 6, 2020		October 25, 2021
Hyphae	Incubation	December 8, 2020		December 7, 2021
FledgePOWER	Incubation	February 11, 2021		February 15, 2022
SOGNO	Early Adoption	October 27, 2020	March 16, 2021	March 8, 2022
Shapeshifter	Incubation	April 6, 2021		March 29, 2022
Grid Capacity Map	Incubation	April 27, 2021		April 19, 2022
RIAPS	Early Adoption	April 30, 2019	June 8, 2021	June 21, 2022
OperatorFabric	Early Adoption	April 30, 2019	July 20, 2021	July 12, 2022
CoMPAS	Incubation	May 5, 2020	June 29, 2021	July 12, 2022
OpenLEADR	Incubation	September 15, 2020		September 13, 2022

# Sandbox stage proposal

Suggestion to establish a “Sandbox” stage before “Incubation” in the LF Energy project lifecycle.

## **Purpose**

Enable vendor-neutral collaboration on early stage projects ( little or no code ) using the existing collaboration infrastructure provided by LF Energy

## **Goals**

- Ensure that early stage efforts can collaborate/form within the view of the LF Energy TAC
- Let early stage projects establish consensus without needing separate arrangements/agreements.
- Provide these projects collaboration and infrastructure that can be used throughout the project's lifecycle at LF Energy.

**DISCUSSION: Is this of interest? If so, we can propose wording at the next TAC meeting**

# Working Group/SIG documentation licensing

In the last weeks there were several discussions about which documentation licensing to use.

**We generally see open source projects at LF Energy Foundation that have not previously selected an open source license use the [Creative Commons Attribution 4.0 International License \(CC-4.0\)](#) for all **documentation and non-code assets**.** This license is widely used and understood by both developers and organizations alike, providing flexibility for downstream usage. Using this license reduces friction if/when this documentation is contributed to an LF Energy project.

For more information see:

<https://wiki.lfenergy.org/display/HOME/Contribution+and+Compliance+Guidelines+for+LF+Energy+Foundation+hosted+projects>

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# Project Video Interviews

We are aiming to have each hosted project do a video interview with TFiR in the next few months.

Published:

- SOGNO - <https://www.tfir.io/lf-energy-open-source-projects-sogno/>

Currently scheduled:

- OpenLEADR
- OpenEEMeter
- CoMPAS

**ACTION: Have your primary project contact email [marketing@lfenergy.org](mailto:marketing@lfenergy.org) to get on the schedule**



LF Energy Open Source  
Projects: SOGNO

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# Open Discussion





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# Next TAC Meeting

The next meeting of the LF Energy TAC is scheduled for 21 September 2021 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/Governing Board updates
- OpenEEMeter/EM2 annual review
- [OpenSTF](#) project proposal ( tentative )
- TFiR project interview updates



Thank you!