Energy Innovation Summit 2026

Optimizing our Energy Future

- *Model Better.*
- *Optimize Faster.*
- *Operate Smarter.*

21/22 April, 2026

Venue:

Polskie Sieci Elektroenergetyczne S.A.
Konstancin, Poland

Pre-Event Registration:

The Summit is co-hosted by

GUROBI OPTIMIZATION & PSE Polskie Sieci Elektroenergetyczne

Optimizing Europe's Energy Future

From Ambition to Action

Optimization as Europe's Decision Infrastructure for the Energy Transition

Europe's energy ambitions are clear. Turning them into operational reality is not.

Transmission and Distribution System Operators are facing an unprecedented combination of system growth, uncertainty, regulatory pressure, and interdependence across planning horizons, voltage levels, and national borders. In this environment, Modeling and Optimization are no longer specialist tools — they are becoming the analytic backbone of power-system decision-making.

Why Warsaw, Why Now!

Across Europe, optimization is moving from isolated applications to strategic decision infrastructure.

The Summit has always been a TSO-led, practitioner forum. Warsaw — co-hosted by PSE — anchors it in real operational priorities and brings together the operators, researchers, and technology leaders who are turning optimization from isolated use cases into production-grade decision infrastructure — now, as Europe shifts from pilots to implementation at scale.

This summit is designed for those shaping that transition — technically, operationally, and organizationally.

- Not as a sales event.
- Not as a purely academic conference.
- **But as a focused, practitioner-level forum to exchange experience, challenge assumptions, and accelerate impact.**

Day 1 examines where optimization already shapes power-system responsibilities, where further value remains untapped across the ecosystem, and discusses best practices for applying optimization-based decision support.

Day 2 focuses on a central question for system operators, market actors, regulators, and solution providers alike: How do we move from successful models and pilots to robust, long-lived, production-grade decision systems?

Energy Innovation Summit

Contributing Organizations

(as of March 6)

Themes:

The Evolving Role of Optimization in Market Design and Regulation

When Operational Responsibility Demands Optimization

Optimal Topology Switching (OTS): engineered, validated, and embedded into operational workflows

Optimization – Unlocking Untapped Value for TSOs

Making Optimization Work – Robustness, Integration & Ownership

Gurobi Solver Deep Dive

Energy Innovation Summit 2026

Model Better. Optimize Faster. Operate Smarter.

The Energy Innovation Summit 2026 for Power Grids is designed specifically for leaders and experts within the European power grid ecosystem who are responsible for planning, market design, system operation, digitalization, and analytical infrastructure. The summit provides a focused, practitioner-level forum to exchange experience, challenge assumptions, and accelerate the industrialization of optimization-based decision support.

Day 1: European Power Grids – A Growing Optimization Footprint

We will examine where optimization already shapes power-system responsibilities, where further value remains untapped across the ecosystem, and discusses best practices for applying optimization-based decision support.

Hosts' Welcome

Tomasz Sikorski, Vice President, PSE (PL)
Michał Klos, PSE (PL)
Frank Häger, Gurobi (DE)

Gurobi and PSE open the summit by framing optimization as emerging decision infrastructure for Europe's energy transition. The session sets expectations for two days focused not on theory alone, but on operational responsibility, implementation realities, and cross-TSO learning.

Opening Keynote – The Evolving Role of Optimization in Market Design and Regulation

Tim Schittekatte – Senior Director, FTI Consulting; Part-time professor, Florence School of Regulation

Electricity market reforms are increasingly decided on quantified impact: effects on consumer bills, reliability, environmental outcomes, and market revenues. At the core of these assessments are optimization models that translate policy proposals into measurable consequences.

Tim's keynote examines how optimization supports impact evaluation across the electricity value chain – from wholesale market design to network tariff structures – and discusses the trade-offs between accuracy, transparency, and timely delivery that determine whether reforms advance or stall.

Session 1 – Energy-First: When Operational Responsibility Demands Optimization

Ksenia Tolstrup – Director, Magnus Energy (NL)
Swantje Möhle – Energy Modeling Engineer, APG (AT)

We experience practitioner-focused perspectives on how optimization supports market and grid design as well as grid operation.

Ksenia draws on hands-on experience with flow-based market coupling, capacity calculation, and large pan-European studies to discuss how models are applied in steering processes – including their assumptions, limits, and the growing role of hybrid approaches combining optimization with machine learning.

Christian Merz – Data Scientist Topology Optimization, 50Hertz (DE)
Manuel Ruiz – Responsable d'étude R&D, RTE (FR)
Endika Urresti Padrón – Optimization and Modelling Expert, PSE (PL)

Christian, Manuel, and *Endika* focus on Optimal Topology Switching (OTS): how it is engineered, validated, and embedded into operational workflows, and what it takes to balance optimality, security constraints, and real-world deployability. Together, the session provides a realistic view of optimal topology switching as a powerful – but carefully managed – instrument for operational decision-making.

Session 2 – Optimization-First: Unlocking Untapped Value for TSOs

Fabrizio Lacalandra – Power Systems and Optimization Expert (IT)
Spyros Chatzivasileiadis – Professor and Head of Section for Power Systems, DTU (DK)
Pascal von Hentenryck – Head of AI Innovation, Gurobi (US) - remote

This session brings together three complementary perspectives on the next frontier of power systems optimization.

- *Fabrizio* will explore where the field is heading – from classical unit commitment and network-aware models to a new mode of working enabled by frontier LLMs.
- *Pascal* will show how the fusion of AI and optimization, through optimization proxies for parametric problems, can help meet real-time requirements in applications such as economic dispatch, risk assessment, security-constrained OPF, and hydro scheduling.
- *Spyros* will then widen the lens, presenting how advanced optimization and artificial intelligence can expand what is feasible in planning, congestion management, market coordination, and system security.

Highlights:

- Advances in scalable optimization methods
- AI-optimization fusion for real-time and repeated decision problems
- Opportunities for tighter integration of grid constraints and markets
- How methodological rigor can reduce conservatism while increasing reliability
- Where TSOs can capture additional system value through deeper adoption

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Closing Panel & Reflection Keynote

A **moderated discussion** with selected speakers synthesizes the key tensions of the day: for example, operational accountability versus methodological possibility, integration challenges versus performance gains.

To close Day 1, *Marius Schrade* – EU Electricity Markets Expert, 50Hertz, will offer a forward-looking synthesis of the day's key themes, tensions, and signals. Rather than a recap, this closing keynote will distill what the discussions reveal about the role of optimization in Europe's power-system ecosystem: where it has already become mission-critical, where it is still not fully embedded, and what must change next for it to scale credibly in operational practice.

Drawing on experience in electricity markets, congestion management, and market coupling, *Marius* will connect the dots between system operation, market design, cross-border coordination, and institutional implementation. The session will ask where optimization has already become critical infrastructure – and what organizational, technical, and regulatory shifts are now needed for the next stage of adoption.

Day 2: From Models to Impact – Making Optimization Work

We focus on a central question for system operators, market actors, regulators, and solution providers alike: How do we move from successful models and pilots to robust, long-lived, production-grade decision systems?

Making Optimization Work – Robustness, Integration & Ownership

Xavier Nodet – Senior Product Manager, Gurobi
Szymon Kitowski – Optimization Expert, PSE (PL)
Martha Frysztacki – Head of Energy System Modelling, Open Energy Transition (DE)

Xavier, *Szymon*, and *Martha* will present concrete lessons on integrating optimization into operational and planning workflows, including:

- Robust model integration,
- Testing and validation strategies,
- Data governance and architecture choices,
- Long-term ownership and evolution of optimization-based systems.

The session focuses on how to move from successful prototypes to dependable, mission-critical infrastructure.

Ana Kekelj – Project Lead, HOPS (CR)
Tin Bobetko – Managing Director, Uprise (HR)

Ana and *Tin* will present a project between HOPS and Uprise on an emerging project that combines CGMES implementation and optimization-based decision support for TSO processes.

The session offers an honest early-stage perspective on what it takes to move from promising technical components to robust, usable solutions in operational reality.

Parallel Breakout Tracks

Participants choose between two in-depth, practitioner-focused tracks.

Track A – Gurobi Solver Deep Dive

Inside the Engine: Algorithms, Explainability & Advanced Modeling

Robert Luce – Senior Director of Optimization, Gurobi
Jaromił Najman – Senior Developer, Gurobi
Christine Tawfik – Optimization Engineer, Gurobi
Vassilios Yfantis – Optimization Engineer, Gurobi

Designed for: Optimization enthusiasts, modelers, and analytical leads across system operators, market institutions, consultancies, and technology providers.

- **Robert Luce & Jaromił Najman:** Recent advances in algorithms, including PDHG advancing large-scale LP solving and local nonlinear optimization with a focus on energy system models, including ACOPF.
- **Christine Tawfik:** Explainability in optimization – ensuring results are transparent, interpretable, and defensible.
- **Vassilios Yfantis:** Advanced modeling techniques such as scaling or decomposition techniques.

Track B – PSE System Architecture Session

Embedding Optimization Across Planning Layers

Karol Wawrzyniak – Deputy Director of National Centre for Energy Analyses, PSE (PL)
Michał Kłos – Deputy Director Computational Methods Development, PSE (PL)

Designed for: Planners, system architects, and decision-support owners across transmission operators, distribution operators, and related grid institutions.

PSE shares practical experience in building multi-layer planning architecture and scaling optimization across organizational boundaries, including considerations around cost and income division.

Summit Close

Extended Networking Coffee (2 Hours | 15:00–17:00)

The summit concludes with a dedicated two-hour networking format from 15:00 to 17:00 for in-depth peer exchange. Participants can discuss implementation challenges, compare approaches across system operators and market institutions, and engage directly with Gurobi and PSE experts.

To ease networking and make conversations more targeted, we will structure the space using an RGB format:

- **Red banner – Gurobi & Solver Topics:** Deep-dive discussions on algorithms, modeling, performance, and product-related questions.
- **Green banner – Energy Transition Challenges:** Strategic and system-level topics such as market design, electrification, adequacy, and cross-border coordination.
- **Blue banner – Operational Challenges:** Practical integration, control-room deployment, architecture, governance, and workflow questions.

Participants can move freely between themes depending on their interests and current challenges.

As some participants may depart earlier for travel, we expect a smaller, more focused group during this final session – allowing for deeper technical and strategic discussions.

If you plan to attend the networking coffee, please let us know in advance so we can organize accordingly.

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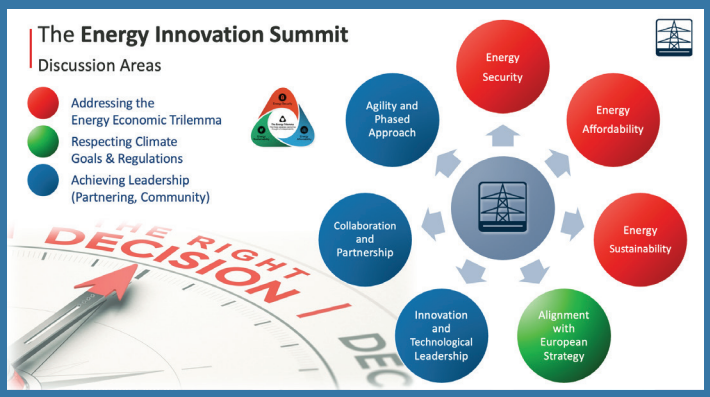
Arriving to Warsaw on April 20 lets you conveniently experience the early Tuesday start.

Konstancin (Poland), a beautiful location...

to conduct discussions that matter most:



Why This Summit Matters

Europe's power systems are entering a phase where **complexity, scale, and interdependence exceed what traditional planning and operational approaches can reliably manage**. Decisions increasingly span multiple time horizons, voltage levels, market layers, and national borders - while expectations for security, affordability, and sustainability continue to rise.

Across Europe, **Modeling and Optimization are becoming the backbone of how these decisions are prepared and justified**. Not as isolated tools, but as integrated decision infrastructure supporting grid expansion, system operation, market design, and resilience planning.

This 6th edition of this Summit brings together European TSOs, leading researchers, and technology experts to exchange experience on how optimization-based decision support is actually used today - where it delivers value, where it struggles, and what it takes to make it trustworthy, scalable, and sustainable in real organizations.

Rather than focusing on theory or product demonstrations, **the Summit creates a shared space to discuss**:

- how advanced models and optimization methods connect to **operational responsibility**,
- how **AI** and **learning-based approaches** extend - but do not replace - rigorous system modeling,
- how **trust, transparency, and explainability** determine adoption in control rooms and planning departments,
- and how organizations evolve from individual models to **long-lived decision support systems**.

The two-day structure reflects this intent. It is a practitioner-level forum for European power-system leaders who are building the analytical foundations of the energy transition - and who want to learn from peers facing the same complexity, constraints, and responsibilities.

Contact

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Registration

Event Video (Youtube)