

Grid of Tomorrow Consortium

CUTTING-EDGE RESEARCH AND STRATEGIC PARTNERSHIPS CONVERGE TO LEAD THE ENERGY TRANSITION

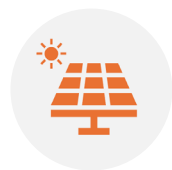
OUR MISSION

The *Grid of Tomorrow* consortium will catalyze research and bolster workforce development to address the challenges from a rapidly changing landscape. It will also serve as a forum for the electric utility ecosystem—including utilities, large industrial customers and data centers, consumers, and technology providers—to:

- Share technical challenges with other members and Purdue University researchers.
- Collaborate on joint or externally funded projects that drive innovation while delivering measurable improvements in reliability and affordability.
- Recruit top talent and shape engineering education.

CHALLENGES & OPPORTUNITIES

- Decarbonization, load growth from data centers, electrification, distributed energy resources, and extreme weather events are major drivers of change.
- Existing options for industry-academia collaboration are limited or cumbersome to establish.
- Academic research can be disconnected from real-world problems.
- Rapidly evolving technologies require flexible lifelong training and up-to-date curricula.
- The *Grid of Tomorrow* consortium is a new paradigm for industry-academia collaboration with targeted high-impact problem solving.



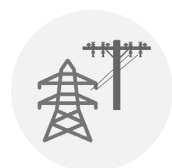
Renewables, Storage, & Grid Edge Technologies

New technologies to support the transition to a decentralized grid



Electrification & Load Growth

Managing the needs and impact of EVs and mega-loads from AI data centers



Integrated T&D Decision-Making

Computational tools for integrated system planning and analysis

CONSORTIUM BENEFITS

INDUSTRY-DRIVEN COLLABORATIVE RESEARCH:

Joint research projects among consortium members and Purdue faculty with 3-month inception-to-start timeline.

HUMAN RESOURCES:

Access to top talent (BS, MS, PhD) trained in a comprehensive engineering curriculum. *Grid of Tomorrow* Fellows will intern with consortium members.

COMMERCIALIZATION AND INTELLECTUAL PROPERTY:

Commercialization of research outputs with IP licensing rights to consortium members.

NETWORKING AND GROWTH:

Networking and outreach events, member-focused consortium roadmap and strategic planning for future growth.

OUR CORE RESEARCH STRENGTHS

- Asset optimization & integrated resource planning
- Data analytics & AI/ML solutions
- Emerging technologies for the grid edge
- Energy markets design
- Grid situation awareness
- Integration of distributed energy resources
- Modeling of mega-loads and large industrial customers
- Nuclear power engineering
- Power system dynamics with inverter-based resources
- Resilience to extreme events
- Transmission and distribution integrated analysis

WHY PURDUE? WHY NOW?

Purdue University aspires to be at the forefront of decarbonization and is primed to address the challenges of the *Grid of Tomorrow*. We are proud to be:

- The largest producer of engineers in the nation.
- Home to highly ranked and historic engineering programs with comprehensive curricula offered both in-person and online.
- Home to world-class faculty with access to cutting-edge research facilities and lab space.

CONTACT US

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