

- » System will support time-critical power grid applications (PMU data rate: every 30ms)
- » Flexible infrastructure, software, models will allow generalization to other time-critical scenarios as well, to other power-grid applications and beyond.

FOCUS AREA

Focus Area Two targets research in the areas of advanced mathematical models, next-generation simulation and analytics capabilities for the power

grid. Projects in Focus Area Two will use high-throughput data streams produced by projects in Focus Area One and integrate them with sophisticated mathematical models to conduct large-scale power grid simulation and analysis. Focus Area Two strives to advance the state-of-the-art in modeling and simulation in order to achieve much higher fidelity situational awareness and global comprehension for power grid stability, efficiency and flexibility. **Focus Area Leads:** Ian Gorton (ian.gorton@pnnl.gov), and Ning Zhou (ning.zhou@pnnl.gov)



ABOUT FPGI

The Future Power Grid Initiative (FPGI) will deliver next-generation concepts and tools for grid operation and planning and ensure a more secure, efficient and reliable future grid. Building on the Electricity Infrastructure Operations Center (EIOC), the Pacific Northwest National Laboratory's (PNNL) national electric grid research facility, the FPGI will advance the science and develop the technologies necessary for meeting the nation's expectations for a highly reliable and efficient electric grid, reducing carbon emissions and our dependence on foreign oil.

ABOUT PNNL

Pacific Northwest National Laboratory is a Department of Energy Office of Science national laboratory where interdisciplinary teams advance science and technology and deliver solutions to America's most intractable problems in energy, the environment and national security. PNNL employs 4,900 staff, has an annual budget of nearly \$1.1 billion, and has been managed by Ohio-based Battelle since the lab's inception in 1965.



For more information, please visit the FPGI website or contact:

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