



White Papers from the PSERC Future Grid Initiative

(as of 6/8/2012)

[Website for PSERC Future Grid Initiative](#)

Thrust Areas and Tasks

Research in the Future Grid Initiative, supported by the Office of Electricity Delivery and Energy Reliability, U.S. DOE, is divided into thrust areas. Each thrust area has tasks in which research is being conducted on a particular topic. The overall final report will be ready in the fall of 2013.

[Web Pages for the Research Thrust Areas and Tasks](#)

Available Thrust Area White Papers:

- [Technology Challenges in Designing the Future Grid to Enable Sustainable Energy Systems](#).
This is a synthesis of the technology challenges in the thrust areas.
- [Electric Energy Challenges of the Future](#)
- [Renewable Energy Integration and the Impact of Carbon Regulation on the Electric Grid](#)
- [Workforce Development - Meeting the Educational Challenge of the Smart Sustainable Grid](#)
- [Computational Challenges and Analysis under Increasingly Dynamic and Uncertain Electric Power System Conditions](#)
- [Engineering Resilient Cyber-Physical Systems](#)

Broad Analysis White Papers

As a part of the Future Grid Initiative, PSERC is working to stimulate thought about solutions to what can be called “broad analysis” needs. A broad analysis need covers questions that are typically well beyond the scope of typical academic research projects in terms of size and definition. The questions are not strictly engineering, often involving issues of policy as well as stakeholder perspectives and impacts.

[Broad Analysis Web Page](#)

Available White Papers on the Topic “[The Information Hierarchy for the Future Grid](#)”

- [Cyber-Physical Systems Security for the Smart Grid](#)
- [Communication Needs and Integration Options for AMI in the Smart Grid](#)
- [Networked Information Gathering and Fusion of PMU Data](#)

Available White Papers on the Topic “[Grid Enablers of Sustainable Energy Systems](#)”

- [Transmission Design at the National Level: Benefits, Risks and Possible Paths Forward](#)
- [Primary and Secondary Control for High Penetration Renewables](#)
- [Future Grid: The Environment](#)

Note: Development of additional white papers is in progress. This document will be updated as they become available.