



*Revised Final*

**AGENDA**

**IRP CONTEMPORARY ISSUES TECHNICAL CONFERENCE**

**Thursday, October 23, 2014,**

**9:45 a.m. – 4:00 p.m.**

**Conference Room B, Indiana Government Center South**

**Toll-Free Conference Number: (877) 422-1931**

**Conference Code Number: 4247591835**

**9:45 – 10:00**    *Welcome*

**10:00 – 10:45**    *The Smart Grid's Role in Integrated Resource Planning*

**Paul Alvarez (Wired Group)**

Indiana Senate Bill 560 encourages Indiana's electric utilities to upgrade their distribution infrastructures. Many if not most utility proposals will include smart grid capabilities that offer significant potential value through enhanced customer efficiency, demand response, and accommodation of distributed generation. This presentation will cover IRP-related smart grid capabilities -- including time-of-use rates, prepayment, integrated volt-VAr control, and distributed energy resource management -- with a focus on how they work, issues that limit value creation, and options available to address the limiters.

**10:45 – 12:00**    *Energy Efficiency / DSM on a Comparable Basis with other Resources*

**Dr. Marty Kushler (American Council for an Energy-Efficient Economy – ACEEE)  
Energy Efficiency as a Utility System Resource: Some Thoughts on Best Practices  
for EM&V, IRP and Regulatory Policy**

This presentation will provide an overview of the concept and demonstrated experience with energy efficiency as a utility system resource. Drawing on successful examples in other states, suggestions for 'best practices' approaches for Indiana will be offered. This will include the areas of program evaluation, resource planning, and regulatory policy.

**Tate Ayers (IPL) *A Customer Balanced DSM Cost Perspective and Methodology***

Energy Efficiency Demand Side Management (DSM) has been trying to find its place in Indiana's electric utility resource planning for over 25 years. Its unique characteristics make for a difficult comparison to supply side resources, yet that economic comparison needs to be made to the benefit of all utility customers. This presentation looks at the key customer-focused resource planning objectives, cost effectiveness and rate impacts, and works to derive a single DSM metric to balance those objectives. While there is no right answer, the intent is to provide both perspective and methodologies to assist in finding a balanced DSM solution that is both "consistent and comparable" and meets the same key objectives as supply-side resources.

**12:00 – 1:00**     ***Lunch***

**1:00 – 2:30**     ***Load Forecasting***

**Dr. Doug Gotham (SUGF) *What is the appropriate method of forecasting?***

What drivers should be used? What about the assumptions behind the future values of those drivers? Is there an appropriate level of granularity? How much historical data should be used in formulating a model? The discussion will include these considerations, along with the relative advantages and disadvantages of different forecasting methods.

**Chad Burnett (AEP) *Economic Trends Influencing Future Load Growth***

It's easy to say that load isn't growing as fast as it used to. It's probably more important to understand the reasons why. This presentation will expose the underlying economic and demographic forces occurring today that help explain why forecasts of future load growth tend to be slower than historical experience.

**2:30 – 3:30**     ***Distributed Energy Technologies in a Modernized Grid: Benefits, Costs, and Issues***

**Stan Hadley (Oak Ridge National Laboratory)**

Recent and projected advances in distributed energy technologies (photovoltaics, wind, storage, demand response, smart meters) have expanded the interest and growth in power generation "at the edge of the grid". As costs have come down, more customers and third parties have looked to add this capacity. The technologies have benefits for the grid and customer, but also added costs or other difficulties. How do these benefits and costs get measured and addressed by the grid owners?

**3:30 – 4:00**     ***Round Table Discussion with Presenters***

## **SPEAKER'S BIO**

### **Paul Alvarez, Wired Group**

Paul Alvarez is the President of the Wired Group, a consultancy that helps clients unleash the latent value in distribution utility businesses. Mr. Alvarez spent 15 years in product development and management with companies like Motorola and Baxter Healthcare, and an additional 10 years helping utilities develop and manage energy efficiency and demand response programs. More recently, he led the only 2 unbiased, comprehensive smart grid deployment evaluations conducted to date, including Boulder, Colorado for Xcel Energy and Duke Energy's Cincinnati deployment for the Ohio Public Utilities Commission. Mr. Alvarez is also the author of "Smart Grid Hype and Reality: A Systems Approach to Maximizing Customer Return on Utility Investment." He has a Bachelor's degree from Indiana University's Kelley School of Business and a Master's degree in Management from the Kellogg School at Northwestern University.

### **Marty Kushler, American Council for an Energy Efficient Economy (ACEEE)**

Dr. Martin Kushler is a 'Senior Fellow' with the American Council for an Energy Efficient Economy (ACEEE), a non-profit research and policy organization founded in 1980, with headquarters in Washington, D.C. While at ACEEE he has been Director of the ACEEE Utilities Program for a decade, has conducted many widely acclaimed national studies of utility sector energy efficiency policies and programs, and has helped develop energy efficiency policies in many states.

Prior to joining ACEEE, he was Supervisor of Evaluation at the Michigan Public Service Commission for nearly ten years. He has been involved directing research and evaluation regarding energy efficiency and utilities for three decades, has been widely published, and has provided consultation to numerous states and the federal government. Contact information: Martin Kushler, Ph.D. Senior Fellow, American Council for an Energy-Efficient Economy (517) 655-7037 [mgkushler@aceee.org](mailto:mgkushler@aceee.org).

### **Tate Ayers, Director of Corporate Planning and Analysis at IPL**

Tate Ayers is the Director of Corporate Planning and Analysis at Indianapolis Power and Light Co. He started his career at Westinghouse in the Nuclear Power Industry, spent several years at Hercules Aerospace, before coming to IPL in resource planning and economic analysis. He is a Professional Engineer with a Masters of Science in Engineering Mechanics from Virginia Tech and an MBA from the University of Utah. He has filed testimony with the Indiana Utility Regulatory Commission on numerous DSM and environment compliance initiatives, as well as active in IPL's integrated resource planning and IRP filing.

### **Dr. Doug Gotham, State Utility Forecasting Group**

Doug has been the Director of the State Utility Forecasting Group at Purdue University since 2005, having served the group in various capacities since 1992. After a six-year stint in the U.S. Navy as a nuclear operator, he attended Michigan Technological University, where he received a B.S.E.E. in 1992. He received his M.S.E.E. from Purdue University in 1993 and his Ph.D. in 1996. He has served on a number

of working groups and boards within the state of Indiana and with the Eastern Interconnection States' Planning Council.

**Chad Burnett, Director of Economic Forecasting for American Electric Power (AEP)**

Chad has worked as an economist for AEP (and previously Central & South West) for the past 17 years. AEP owns the largest transmission network in the US (over 40,000 miles) and has nearly 38,000 megawatts of generating capacity to serve over 5 million customers in 11 different states. In his current position, Chad leads the team that is responsible for forecasting sales (energy), revenues, peak demand (MW), and customers for each of the 10 AEP operating companies. Additional duties include variance analysis, weather normalization, energy efficiency modeling, and regulatory support for each of the 15 jurisdictions and 3 regional transmission organizations (PJM, SPP, & ERCOT) in which AEP participates. Chad holds a Bachelor of Science degree in Economics and Finance as well as a Master of Business Administration degree from the University of Tulsa. Chad also works as an Adjunct Professor of Economics at Southern Nazarene University where he has taught for the past 12 years.

**Stanton Hadley, Oak Ridge National Laboratory**

Stanton W. Hadley is a Senior Researcher at Oak Ridge National Laboratory and has over thirty years of experience in analyzing the energy industry. He has developed and used electric industry and national energy models for topics such as uranium enrichment, renewable and conventional generation, transmission expansion, demand response, energy efficiency, electricity restructuring, carbon dioxide emissions, distributed generation, critical infrastructure protection, and electric transportation. He is currently a technical advisor to the Department of Energy-funded Eastern Interconnection States' Planning Council.