



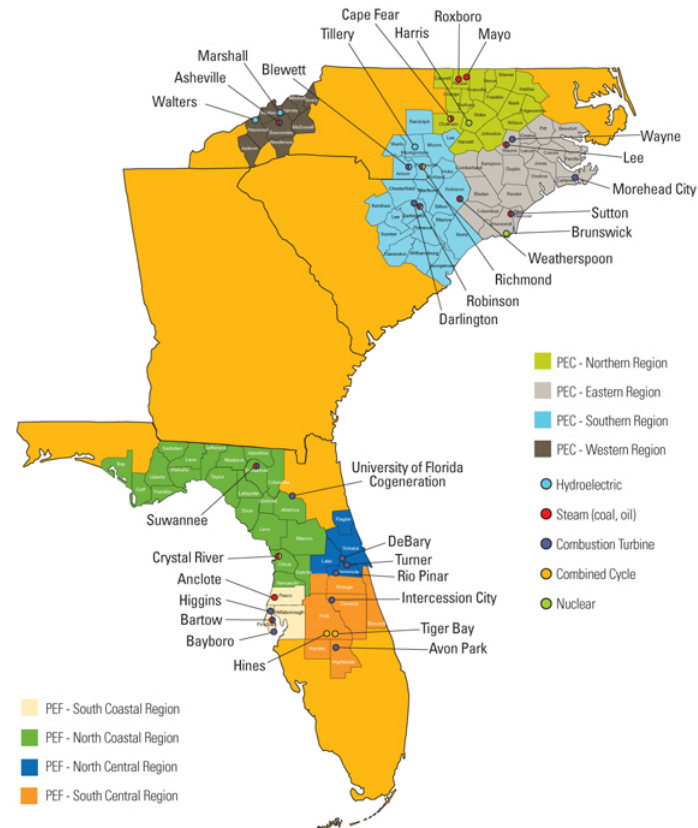
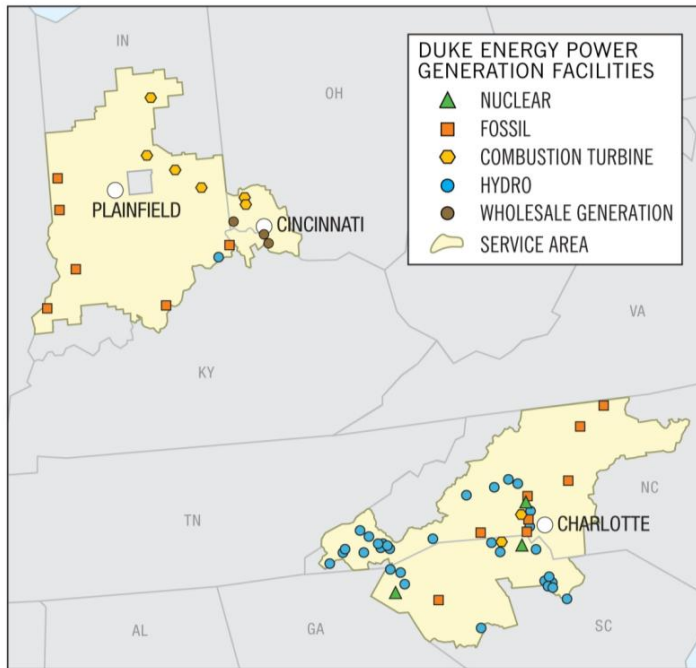
ABB Automation World

April 19, 2011



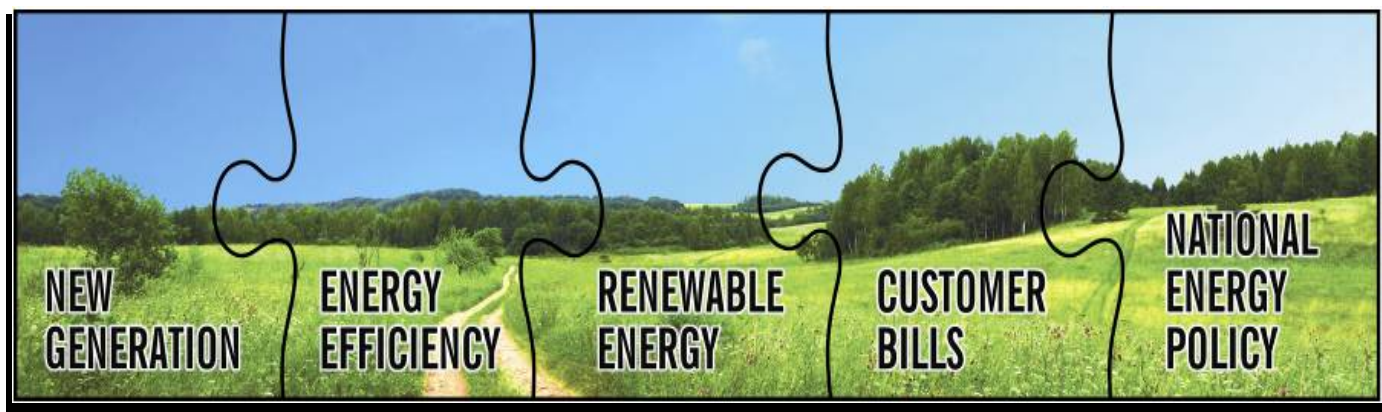
Duke Energy Overview - Today

<ul style="list-style-type: none"> • 5 states: NC, SC, OH, KY, IN 	<ul style="list-style-type: none"> • 47,000 square miles of service area
<ul style="list-style-type: none"> • 28,000 MW of generating capacity 	<ul style="list-style-type: none"> • 4.0 million retail electric customers
<ul style="list-style-type: none"> • 500,000 retail gas customers 	<ul style="list-style-type: none"> • Duke / Progress merger - double in size to the largest U.S. utility



Fact: We are in a rising price environment

- Shaping and adapting to climate change legislation
- Applying new equipment to meet environmental requirements
- Construction of new generation, especially nuclear
- Meeting Sustainability objectives
- Advancing Renewables
- Delivering on Energy Efficiency
- Investment in the development and deployment of Smart Grid

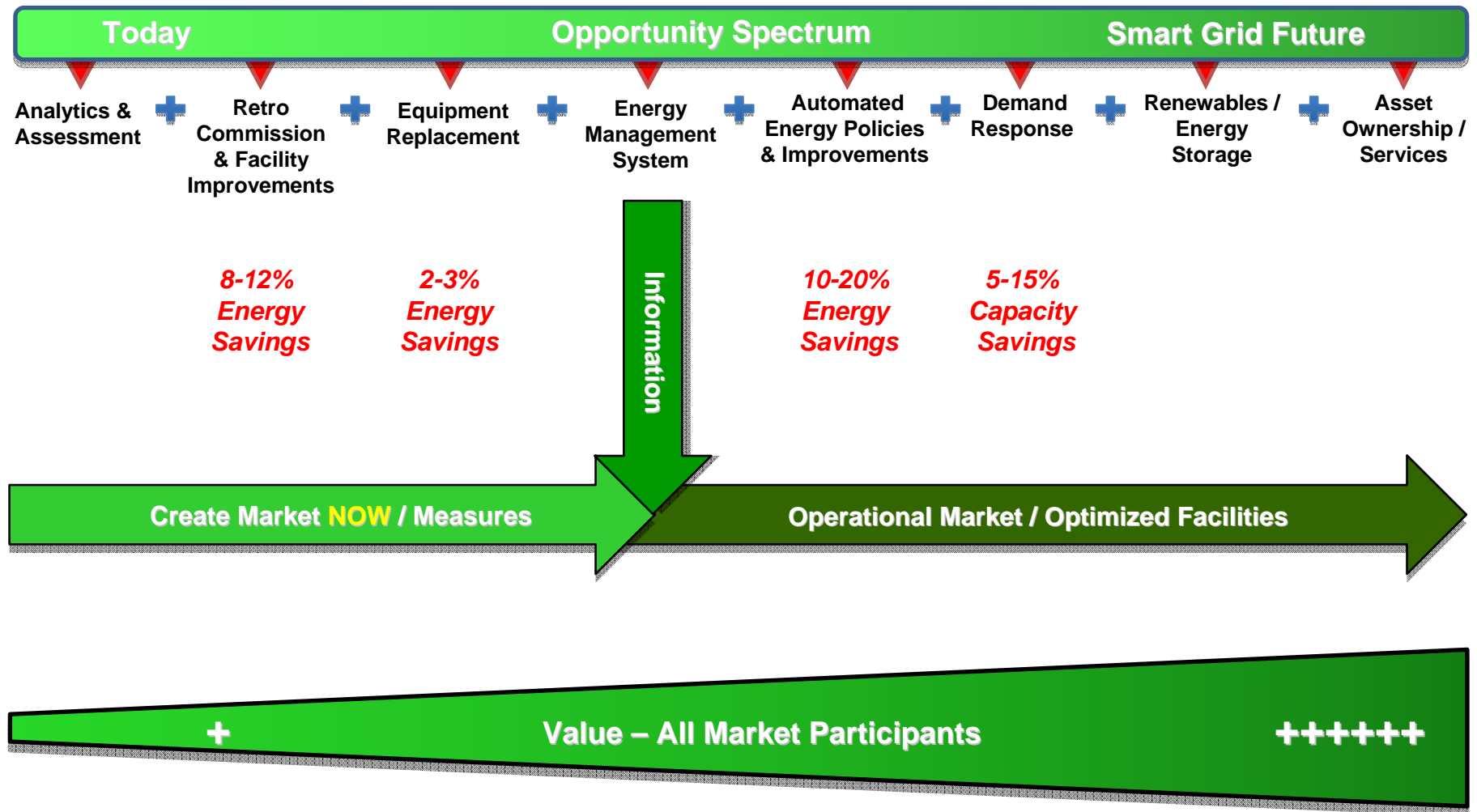


- Limited capital available... especially in these difficult economic times
- Production investments taking precedence or perceived as more valuable
- Short-term focus
- Low risk of EE investments not accounted for in business cases
- Detailed assessments are generally required to identify opportunities with complex manufacturing systems
- Limited availability and/or capability of customer personnel
- Resistance to change
- Trust
- Perception that everything possible has been done

- Research indicates difficulty in generalizing industrial savings potential as opportunities are very site specific → assessment required
- 5% to 15%: retro-commissioning, equipment upgrades
 - Many reports suggest around 10% McKinsey, EPRI, ACEEE
- 10% to 20%: better control, process optimization, behavioral changes
- 10% to 20%: natural gas savings – steam, process heating
- 5% to 15%: capacity savings from Demand Response
- Wild Cards: Rate Increases, Time-Based Pricing, Smart Grid



Strategic Vision: "Energy Optimization"



Assessments

Online Energy Assessment

- Basic assessment available through the Business Services Newsline
- Helpful articles specific to your input and industry

Offsite Energy Assessment

- High level one on one assessment via conference call
- Approximately 1-2 hours
- Report identifying “excellent, good, fair” energy efficiency opportunities

On-site Energy Assessment

- Comprehensive assessment conducted at the facility with independent assessor
- Typically 1-2 days to complete
- Duke Energy shares the cost, paying 50% (approximately \$3000)
- Detailed report identifying efficiency opportunities and next steps

SmartSaver

Prescriptive Incentives

- 270+ measures w/ pre-defined incentives
- Lighting, HVAC (Space Conditioning, Process), Motors / Pumps / Variable Speed Drives, Food Service, Process Equipment
- 2 year simple payback goal

SmartSaver

Custom Incentives

- Projects not covered by prescriptive incentives
- Nominated by customers
- Innovative solutions

PowerShare

Demand Response

- “Sell” capacity and energy back to utility
- \$ / kw per month for curtailable capacity
- Voluntary energy credit option
- Call Option - # events, notification, credits, risk

Other Resources

- Utility Seminars - ex: “Blueprint for Energy Savings”
- Department of Energy / Industrial Technologies Program: <http://www1.eere.energy.gov/industry/>
 - State Energy Offices – Programs, Funding
 - www.duke-energy.com

Resource to Locate Federal, State and Utility Funding



DSIRE
Database of State Incentives for Renewables & Efficiency

Home | Glossary | Links | FAQs | Contacts | About Us

DSIRE SOLAR
DSIRE is a comprehensive source of information on state, local, utility, and federal incentives and policies that promote renewable energy and energy efficiency. Established in 1995 and funded by the U.S. Department of Energy, DSIRE is an ongoing project of the N.C. Solar Center and the Interstate Renewable Energy Council.

Choose one or both databases:
 Renewable Energy Energy Efficiency

Federal Incentives

Resources
Summary Maps
Summary Tables
Library
Search
What's New?

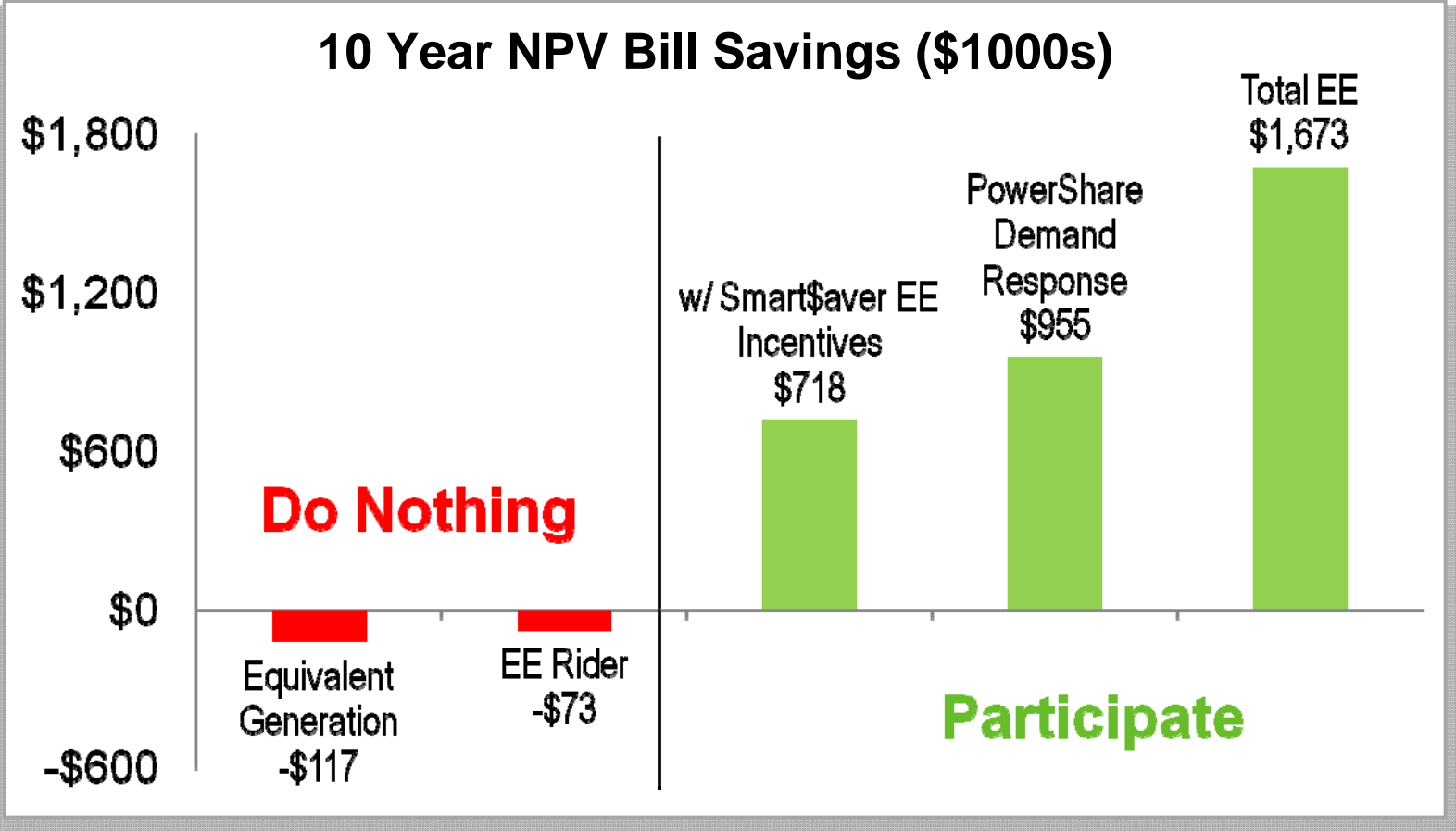
U.S. Territories

www.dsireusa.org

Energy Efficiency Bill Impact



Illustrative Example



Example: Lighting, High Efficiency Motors , Controls, PowerShare

Example Projects w/ Incentives

Energy Management Controls

- Temperature set-point limits
- Unoccupied setbacks
- Central EMS portal & control
- 500,000+ kWh Impact; 200+ Peak kW Impact
- Customer Cost: \$135,000
- Estimated Annual Customer Savings: \$46,000
- Custom Incentive: \$68,000
- Simple Payback with Incentive: 1.5 Years

Electric Boiler and Humidification

- Boiler right sizing
- Ultrasonic humidifiers
- Customer Cost: \$200,000
- Estimated Annual Customer Savings: \$50,000
- Custom Incentive: \$28,000
- Simple Payback with Incentive: <3.5 Years

Working Together to Get There



- *The “Energy Service Marketplace” - where buyers and sellers exchange value.*
- *Each participant contributes such that the overall value is created.*
- *When Alliances are developed, then value can be maximized for all.*

