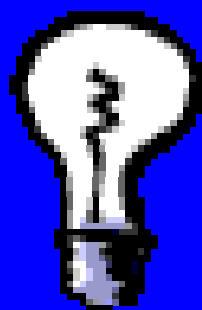


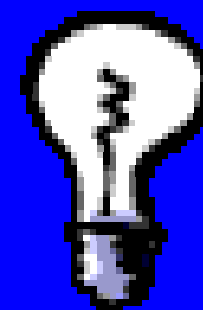
Indiana Utility Regulatory Commission



Overview of Current Demand- Side Management Activities in Indiana



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Utility Analyst
April 17, 2006



DSM Definition



Demand-Side Management (“DSM”) means the planning, implementation, and monitoring of a utility activity designed to influence customer use of electricity that produces a desired change in a utility’s load shape. DSM includes only an activity that involves deliberate intervention by a utility to alter load shape. [IAC 4-7-1(g)]



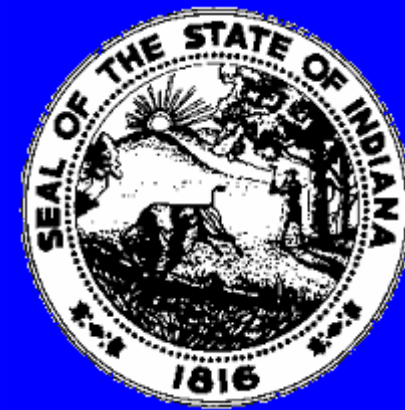
Load Shape

- Load Shape means the time pattern of customer electricity use and the relationship of the level of energy use to a specific time during the day, month, and year. [IAC 4-7-1(v)]
- Other terms defined: demand-side measure; demand-side program; demand-side resource.



DSM is part of IRP Process

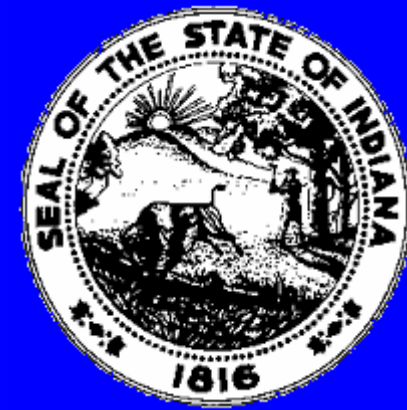
“A utility must consider a demand-side resource, including innovative rate design, as a source of new supply in meeting future electric service requirements. The utility shall consider a comprehensive array of demand-side measures that provide as opportunity for all ratepayers to participate in DSM, including low-income residential ratepayers.” [IAC 4-7-6 (b)]



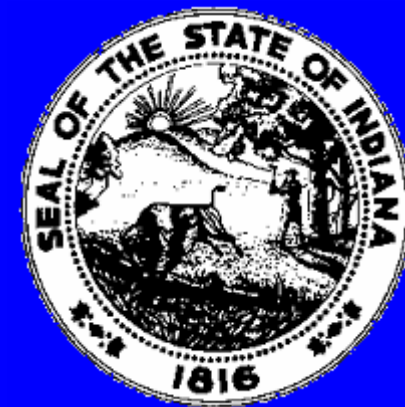
Rule 8: Guidelines for Demand-Side Cost Recovery by Electric Utilities

- This rule provides the regulatory framework that allows utilities to recover expenditures on DSM resources.
- The rule attempts to eliminate or offset regulatory or financial bias against DSM, or in favor of a supply-side resource, that a utility might encounter in procuring least-cost resources.

Rule 8: Guidelines for Demand-Side Cost Recovery by Electric Utilities

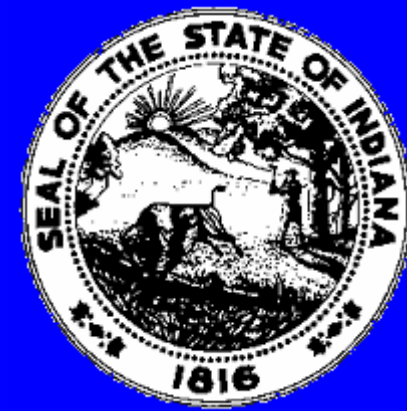


- The rule also ensures that the financial incentive offered to a DSM customer is fair and economically justified.
- The IURC will review and evaluate the existence and extent of regulatory or financial bias.
- The IURC will review and evaluate the proposed DSM programs, DSM cost recovery, lost revenue, and shareholder DSM incentive mechanism.



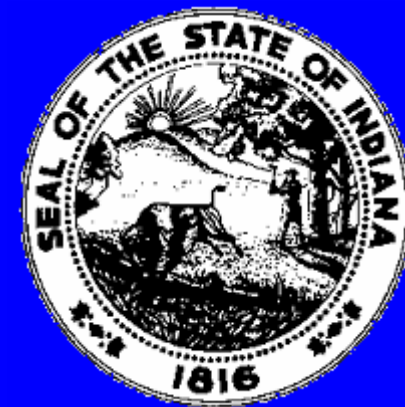
DSM History in Indiana

- DSM Programs: Three of the five Investor-Owned Utilities have operated DSM programs over the past 10+ years.
- All five have used interruptible rates and contracts to manage customer demand.
- Low Rates in Indiana: Because Indiana has low electric rates, not many programs are cost effective, and DSM programs in Indiana have not been very extensive.



Duke Energy (PSI Energy or Cinergy) DSM Programs:

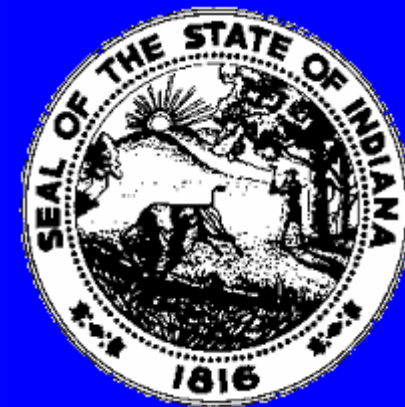
- Residential Programs:
 - Home Energy House Call Program
 - 1,912 participants (\$435,467, expenditures for 2004)
 - The program provides energy audits for houses



Duke Energy DSM:

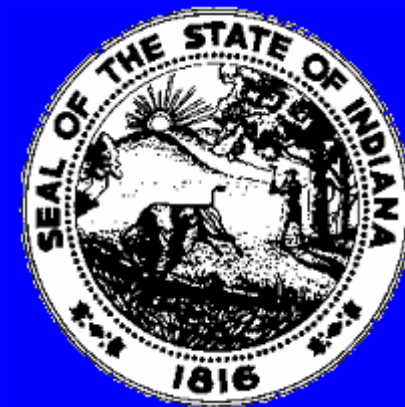
Smart Saver (High Efficiency Air Conditioning and Heat Pumps)

- Air Conditioner program has 1,266 participants (\$218,666)
- Heat Pump program has 2,010 participants (\$806,203)
- Energy Star Homes program has 251 participants (\$99,272)



Duke Energy DSM:

- Low Income Weatherization Program
 - 534 participants/houses (\$195,870)
- Low Income Refrigerator Replacement Program
 - 144 participants/refrigerators (\$101,412)
- Direct Load Control
 - 11,229 participants/appliance switches (\$2,672,324)



Duke Energy DSM:

Small Commercial and Industrial
Programs (\$247,046):

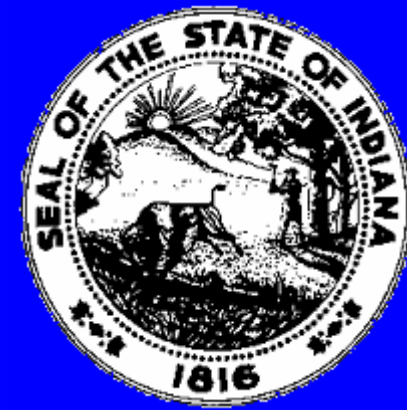
- Lighting Incentive Plan
 - 22,169 ballasts
- Energy Efficient Cooling Systems
 - 209 units
- Energy Efficient Motors
 - 3 motors



Duke Energy DSM:

- Photovoltaic (Solar) Program (\$101,384):
 - Schools (commercial): 2 systems
 - Houses (residential): 2 systems

Indianapolis Power & Light ("IPL") DSM Programs:



- Approved on July 21, 2004 in CN 42639.
- The order approved programs and costs for 2004 through 2007.



IPL DSM Programs:

- Income-Qualified Residential Energy Efficient Comprehensive Program
- This program has been in effect since 1993
- It involves all measures in the weatherization of houses and apartment complexes
- The program budget allows IPL to weatherize 3 apartment complexes of about 100 apartments each
- The apartment complexes must have electric space heat to be eligible.
- The program budget is \$1,425,000 over three years
- Delivery of program has been changed—it is now delivered by local Community Action Agencies in collaboration with the Indiana Family and Social Services Administration



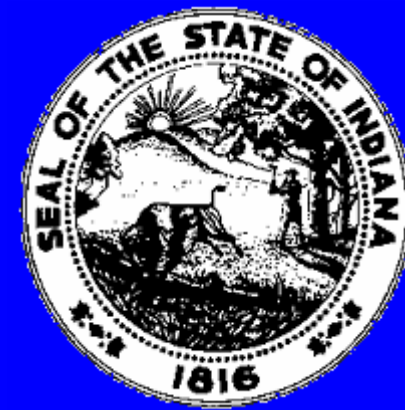
IPL DSM Programs:

- In the past (1997-2003), IPL completed weatherization of 500 single family houses and 5 multi-family projects with about 500 apartments.
- Measures include:
 - Hot water pipe insulation
 - Flow control showerheads, faucet aerators
 - Lighting—install compact fluorescent bulbs where possible
 - Refrigerators—replace original units
 - Electric furnace/AC, Replace with SEER 12 or higher
 - Heat Pump replacement
 - Attic access panels—insulate and weather strip
 - Health and safety including verification that all appliances are operating safely
 - General waste heat reduction including air sealing of major leaks
 - Insulation of ceilings to R-38



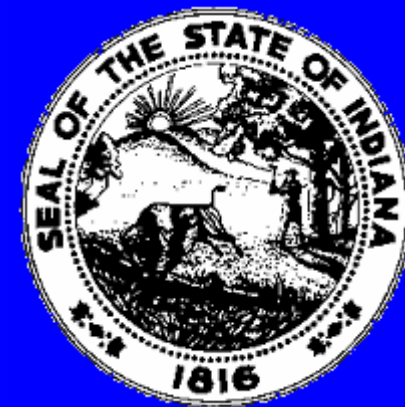
IPL DSM Programs:

- Energy Efficiency Education Program
- This program provides customers with information through various channels of communication to educate and encourage more energy efficient investments and behaviors.
- The information is targeted to residential customers through various media such as bill inserts, radio, television, newspaper, brochures, and the internet; as well as educational settings.
- Three year budget is up to \$375,000.



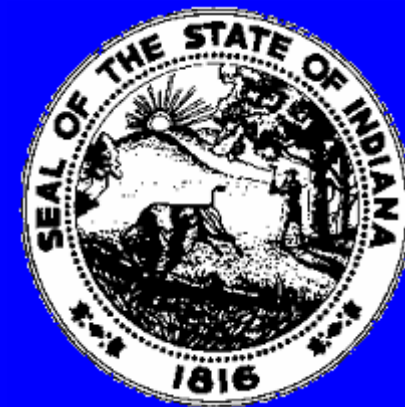
IPL DSM Programs:

- Renewable Energy Education Program
- This program will deploy one or more renewable energy demonstration projects, such as solar photovoltaic panels, in a high profile public setting in the IPL service territory.
- Program budget is \$150,000.



IPL DSM Programs:

- Residential High Efficiency Air Conditioning Program
- This program offers incentives to home builders and customers for upgrading central air conditioning systems to more energy efficient models.
- Incentive amounts range from \$100 to \$600



IPL DSM Programs:

- Air Conditioning Load Management Program
- This program allows IPL to cycle (turn off) residential air conditioners or heat pumps in the summer via radio signals when power costs are likely to be very high.
- Commands to cycle are generally for a few hours at a time.
- Units are turned off for 20 to 30 minutes each hour.
- Participants receive a bill credit in the summer months.



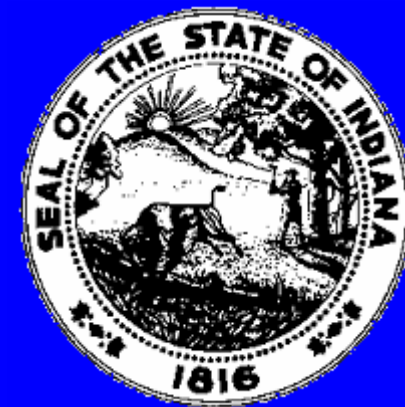
IPL DSM Programs:

- Air Conditioning Load Management Program
- Bill credits totaled \$241,000 for 2005.
- Through November 2005, IPL has installed 11,848 switches.
- 197 customers have dropped out, resulting in a de-enrollment rate of less than 2%.
- In 2005, IPL realized about 11 MW of demand reduction when it controlled the switches.
- IPL estimates a 0.98 kW demand reduction per switch—almost exactly the 1 kW reduction predicted when IPL proposed the program.



IPL DSM Programs:

- Critical Peak Pricing Pilot Program
- This is a pilot program to examine the viability of a residential pricing option that would allow residential customers to respond to price signals that more closely reflect variation in costs for electricity production and delivery.
- IPL hired a consultant to analyze the benefits and costs of the program, and in 2005, IPL decided NOT to implement the program.



IPL DSM Programs:

- Critical Peak Pricing Pilot Program
- However, IPL noted a number of significant events that occurred in 2005 that may cause IPL to reevaluate the benefit of a Critical Peak Pricing or Time of Use program:
 - Wholesale market prices significantly increased in 2005 (roughly 50% over 2004)
 - The Energy Policy Act of 2005 has provisions that encourage states to evaluate the appropriateness of TOU rates and the use of Smart Metering.



Vectren Energy (SIGECO) DSM Programs:

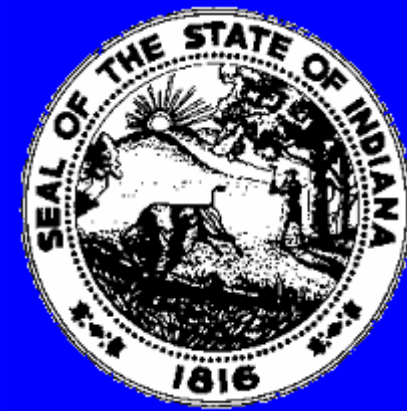
- Residential Direct Load Control Program
 - Started in 1992
 - Reduces summer peak load by direct, temporary cycling of participating air conditioners and heat pumps and by shedding connected water heater loads
 - 41,323 switches



Vectren Energy DSM:

Commercial Direct Load Control Program

- Started in 1994
- 2,690 switches
- Vectren states that the DLC programs continue to be effective and no changes are recommended at this time.



Interruptible Rates and Contracts

- All five Indiana investor-owned utilities, as well as our municipal and cooperative power companies use these rates to reduce load when power supplies are tight—typically during very hot summer weekday afternoons.



Time-Of-Use Rates:

- Indiana Michigan Power (AEP) has had a Time of Use rate available for 10+ years. I&M states that 2,600 customers are on this tariff. Also, over 1,600 customers have installed off-peak water-heating systems.



Time-Of-Use Rates (I&M):

- Availability is restricted to the first 2,500 customers applying for service under this tariff.
- Energy Charge: 11.491¢ per kWh for all on-peak kWh and 1.905¢ per kWh for all off-peak kWh
- The on-peak billing period is defined as 7 a.m. to 9 p.m., local time, Monday through Friday.



Interruptible Rates and Contracts

- IURC 2005 Summer Capacity Survey:
- Question: For each of the projected peaks for June, July and August 2004, please describe the resources expected to be used to meet that peak.



Interruptible Rates and Contracts

	Projected	DSM	DSM/
• Utility	Peak Load	(MW)	Peak %
• AEP	4,481 MW	226	5.0 %
• IPL	3,065	67	2.2 %
• NIPSCO	3,305	435	13.2 %
• PSI	6,772	329	4.9 %
• Vectren	1,339	65	4.9 %
• IMPA	1,280	3	0.2 %
• WVPA	1,356	147	10.8 %
• HE	1,530	5	0.3 %