

IPL's 2008 Summer Capacity

Presentation to IURC

June 3, 2008

Ann Murtlow—President and CEO

 **THE POWER BEHIND INDIANAPOLIS** 

IPL

An AES Company

Supporting Staff

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- Ken Flora—Director, Regulatory Affairs
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- Jake Allen—Team Leader, Mktg & Pgm Mgmt



Presentation Overview

- Customer demand assessment
- Supply resources
- Generation resources
- Reserve margins
- Customer Demand Response options
- Energy efficiency programs
- Future Opportunities and Challenges



IPL Historical Summer Peaks

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
MW *	2,915	3,118	3,116	3,139
Date	July 22	July 25	July 31	August 8
Hour	4:00 PM	4:00 PM	4:00 PM	3:00 PM
Temp.	88°F	95°F	93°F	94°F

*Net Demand



IPL 2008 Summer Projected Peaks (MW)

	<u>June</u>	<u>July</u>	<u>August</u>
Total Demand	3,066	3,197	3,156
Demand Response	96	96	96
Net Demand	2,970	3,101	3,060



Supply Resources 2008 (MW)

IPL-Owned Generation	3,353
Perry K (CTE)	5
Capacity Purchases	200
Scrubber Options	27
Total Supply Resources	3,585

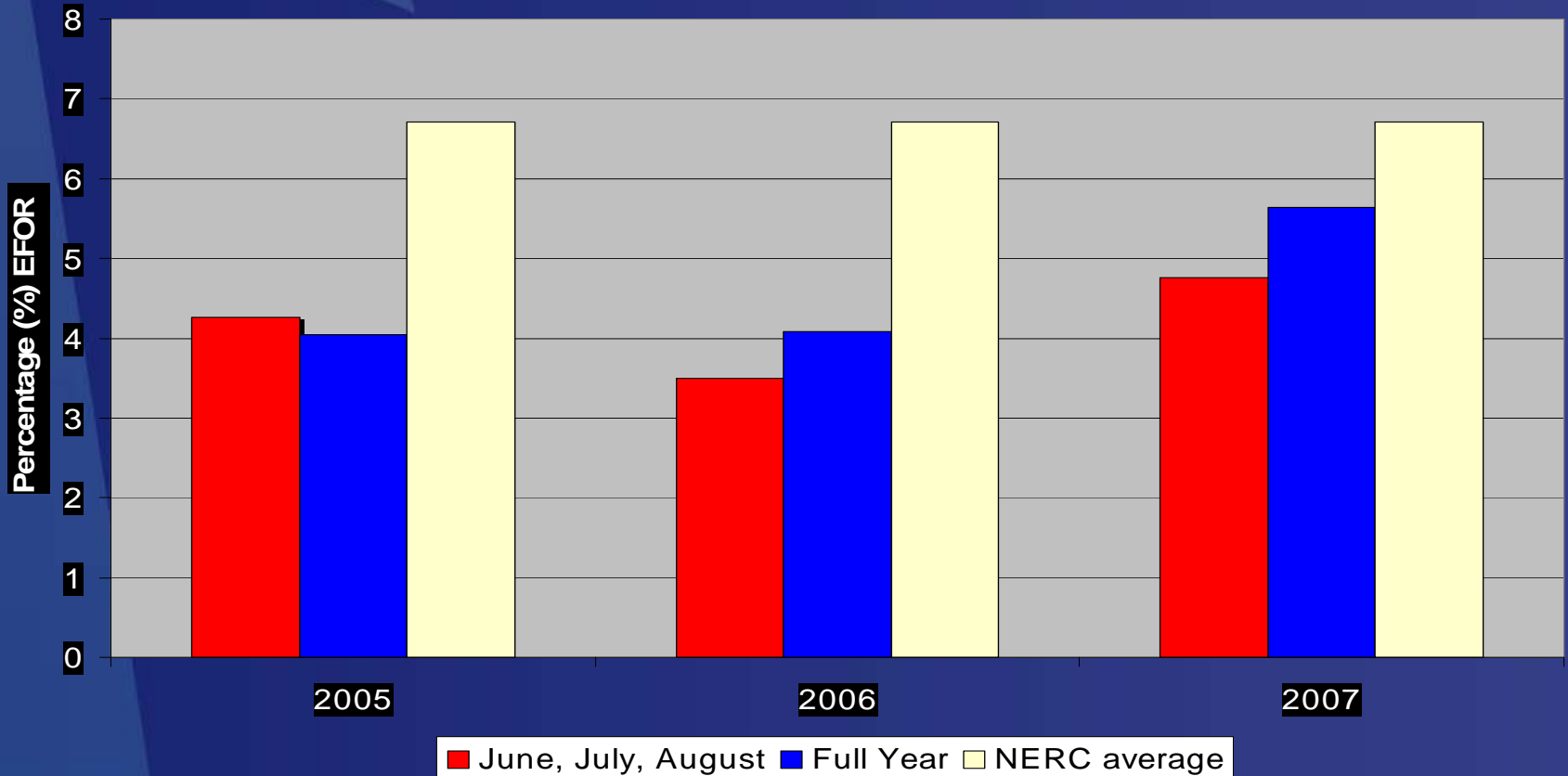


IPL Generation

Unit Type	Fuel	MW	%
Steam Turbine	Coal	2,651	79.1%
Steam Turbine	Oil	148	4.4%
Combustion Turbine	Oil	60	1.8%
Combustion Turbine	Gas	316	9.4%
Combustion Turbine	Dual (oil/gas)	164	4.9%
Generator	Diesel	14	0.4%
		<hr/>	
		3,353	



Equivalent Forced Outage Rate (EFOR)—Coal-Fired Units

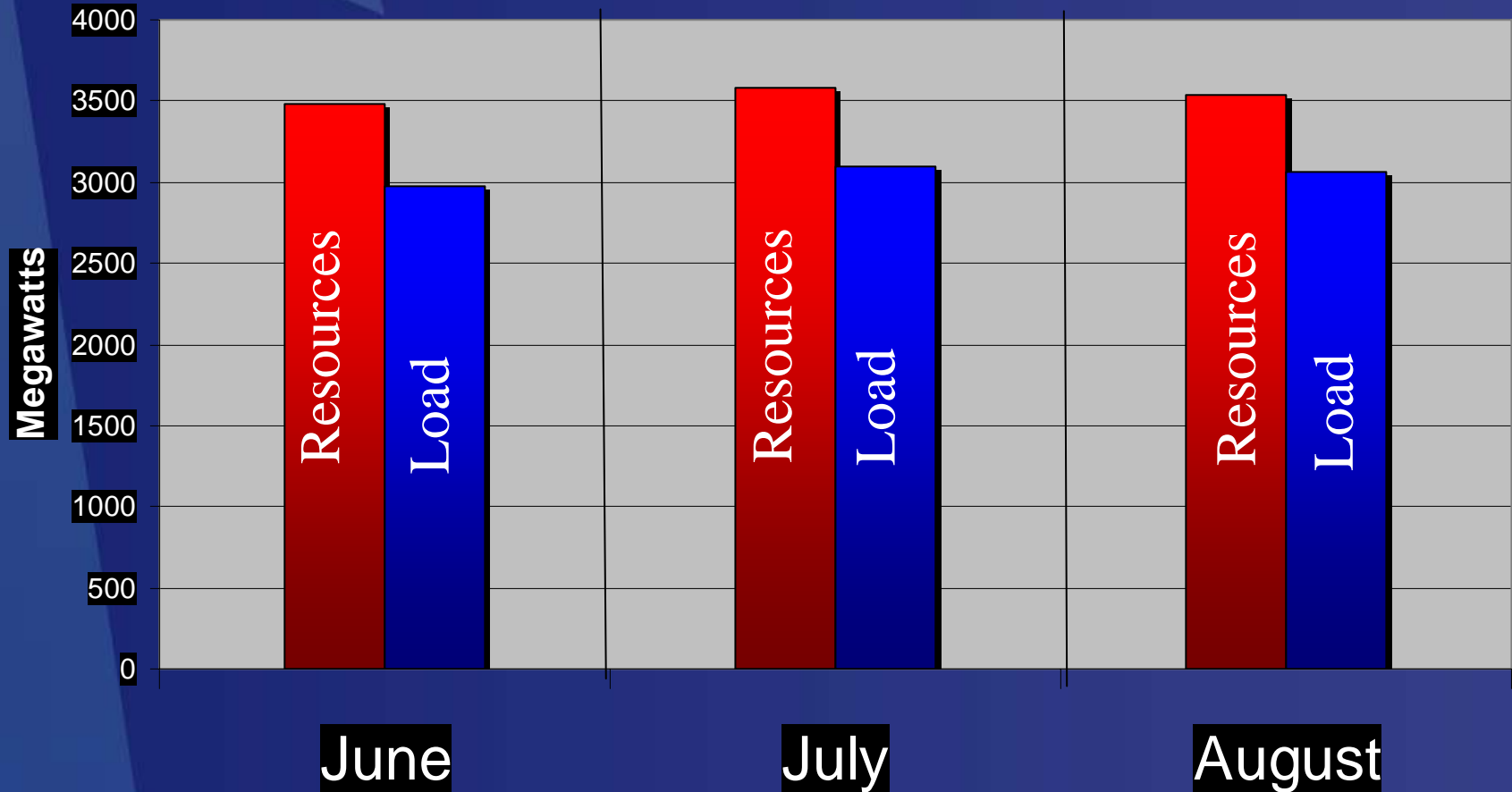


EFOR is an industry measure that represents the effect on unit reliability due to unit forced outages and/or unplanned derates.

2007 NERC 5 yr average EFOR of 6.71% is used



Supply Resources vs. Projected Peak Load

**June****July****August**

Reserve Margin (MW) 515

484

475

Reserve Margin (%) 17.3%

15.6%

15.5%



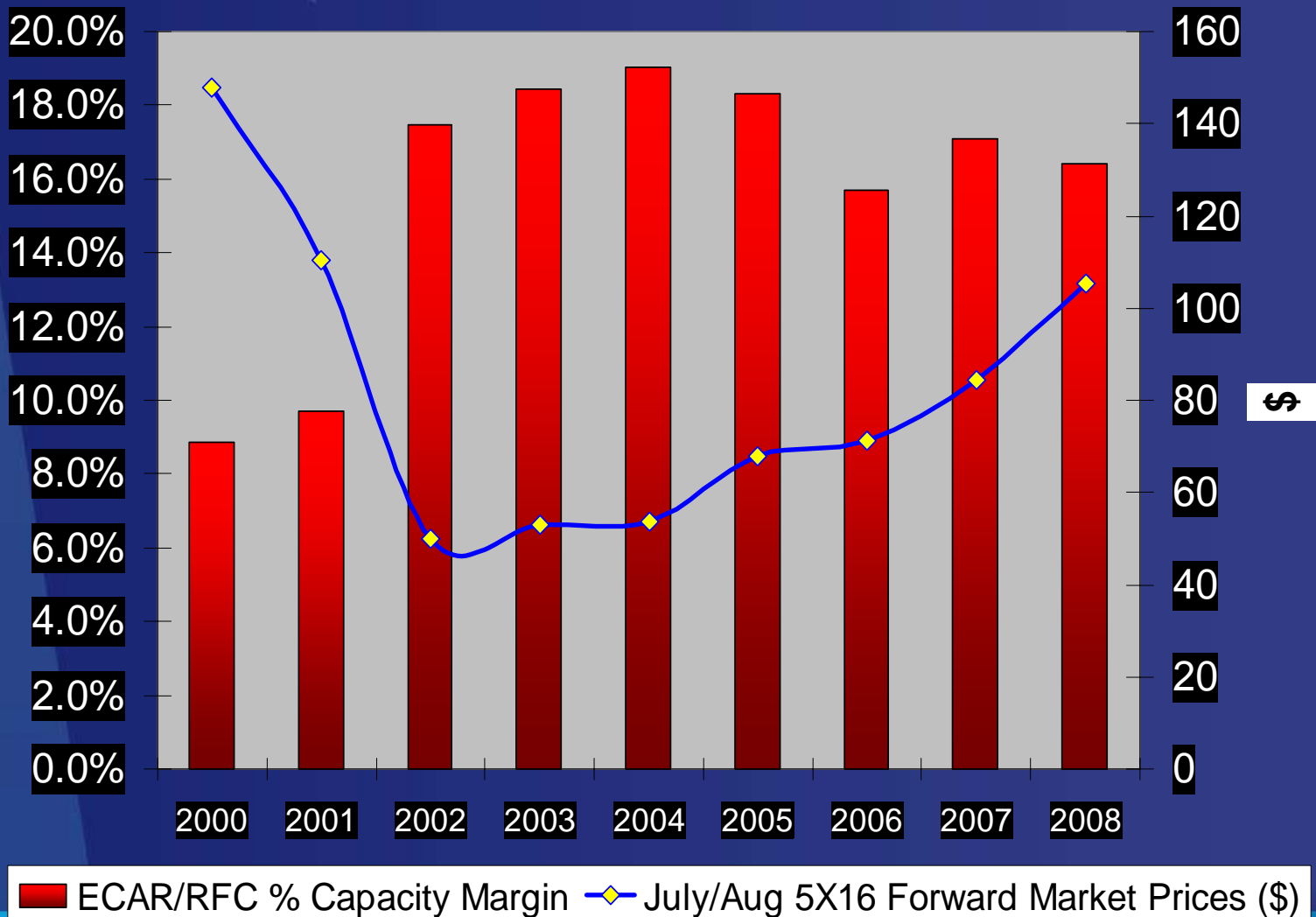
Reserve Margins

Summer 2008

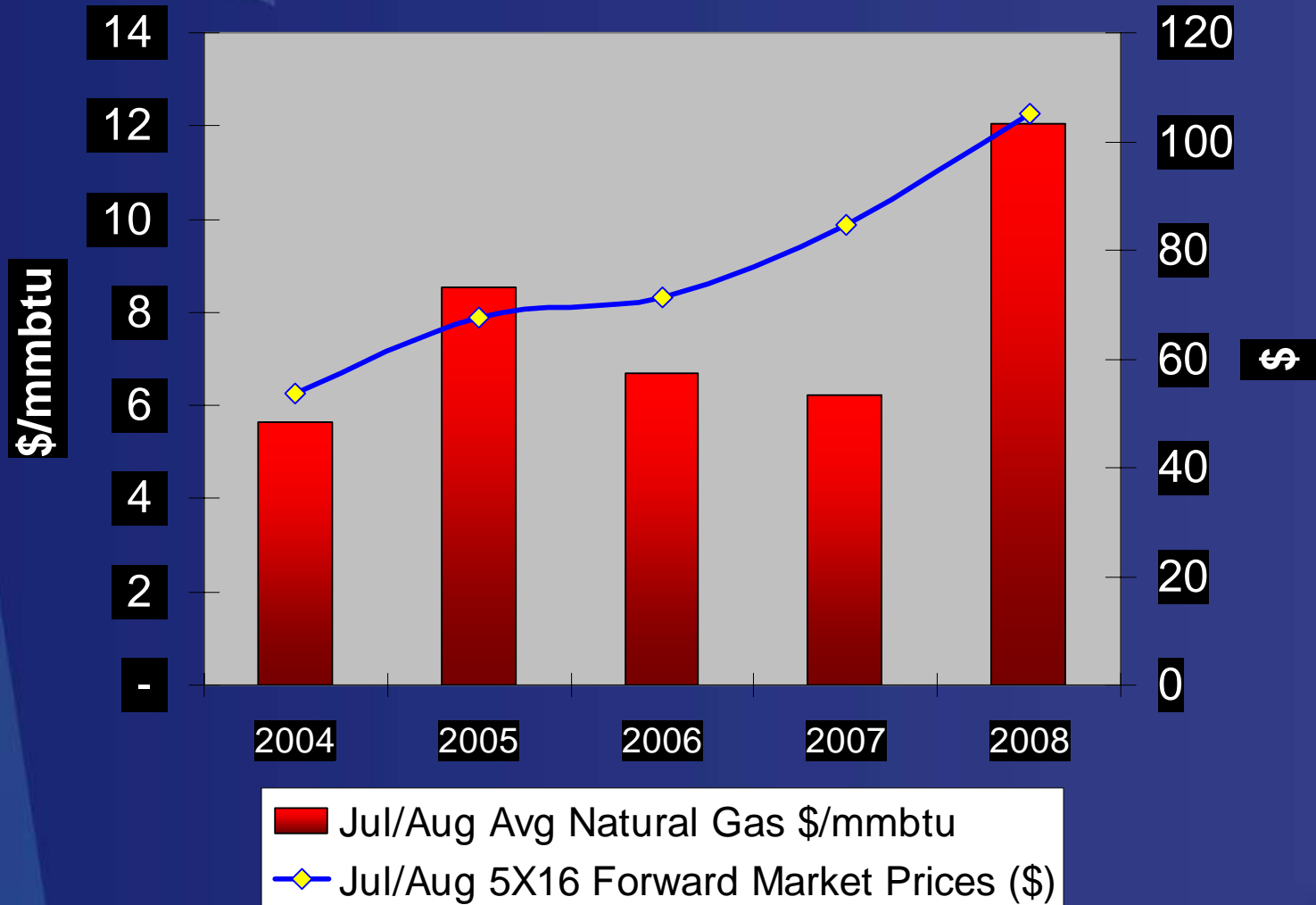
	<u>June</u>	<u>July</u>	<u>August</u>
IPL Reserve Margin %	17.3%	15.6%	15.5%
Reliability First %	28.9%	20.1%	24.0%
MISO %	31.7%	21.6%	22.8%
PJM %	31.7%	21.8%	28.5%



Capacity Margin vs. Forward Market Prices ECAR/RFC(2008)



Natural Gas vs. Forward Market Prices



Customer Demand Response Options

Summer Demand Impacts (MW)

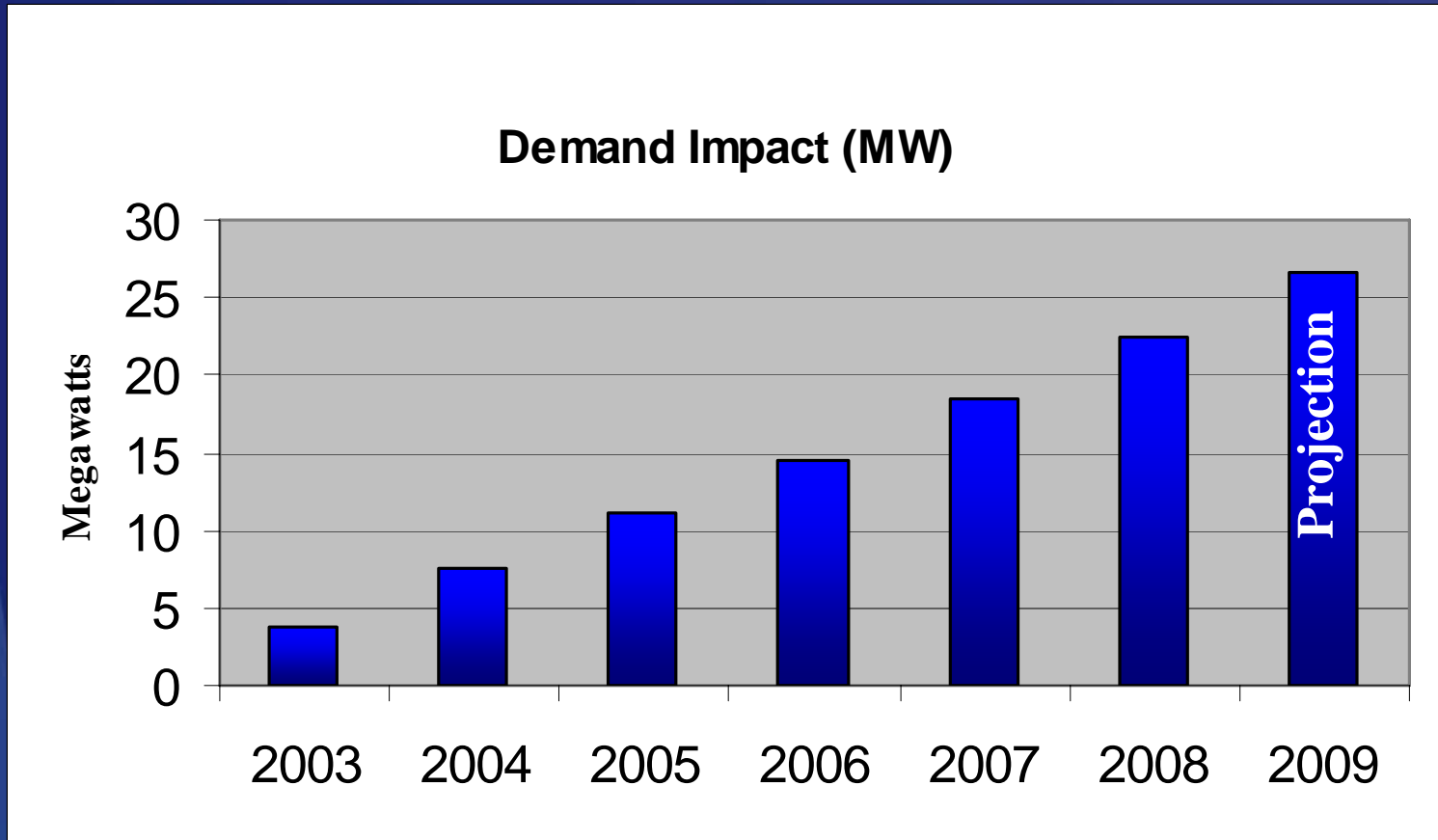
Projected

2008

Real-time interruptible	13
Customer-owned generation	34
Other interruptible	27
Air Conditioning Load Mgmt	22
Total	96



Demand Response-ACLM “CoolCents”



Energy Efficiency Programs

- Residential
 - Income qualified weatherization
 - High efficiency heat pump and air conditioner incentives
 - Energy efficiency education
 - Renewable energy education
- IPL is conducting a Market Potential Study
 - IPL is working with Citizens Gas to develop some joint programs
 - Future energy efficiency programs will likely include more residential and small C&I customers
- Indiana Housing and Community Development Agency (IHCDA) Income Qualified Projects
 - Leveraging IPL's money with IHCDA and Citizens Gas





Utility Scale Energy Storage Project

- 2-1MW advanced technology batteries housed in 2 portable semi trailers.
- AES project designed to support grid frequency
- Designed to deliver 2MW for 15 minutes
- Batteries built by Altair Nanotechnologies, Inc. in Anderson IN
- Proof of concept took place earlier this year at IPL's Glenns Valley Substation.
- Batteries shipped to AES plant on East coast for participation in PJM ancillary services market.

Battery modules in one of two semi trailers at IPL's Glenns Valley Substation



Net Metering and Renewable Demos

- Net Metering—Continued increase in customer interest with 3 new customers in 2007
- Renewable Energy Demonstration Projects
 - Wind demonstration projects with KIB and the Indiana State Fair
 - 4 schools placed solar projects in-service in 2007



New Wind Customers



- 50 kW wind turbine
- The Time Factory (62nd and Guion Rd—Indianapolis)
- Placed in-service in late April 2008
- We are working with the City of Carmel on a potential installation



Plug-in Hybrid Electric Vehicles (PHEV)



- Conversion of 2 Toyota Prius Hybrids
- IPL responsible for public awareness campaign and grid impact study
- Project funded by grant from Indiana OED
- Cars to be converted and on the road by end of Summer



Helping customers make better energy decisions

- IPL is rolling out a new web-based *PowerView* software
 - C&I customers can now access and view their energy use profiles on line
 - Roll out includes customer training sessions where customers:
 - Learn how to use *PowerView* software
 - See and understand the financial effects demand, power factor and energy consumption have on their bills
 - Customers are already making changes to reduce their energy bills using *PowerView*



Summary

- IPL projects a 0.6% increase in the 2008 summer peak vs. 2007
- IPL is well positioned to serve our customers this summer, particularly due to increases in our generating capacity
- We are also taking steps to be prepared for summers to come

