

2014 Summer Capacity Survey

Lee Wilmes - Vice President, Power Supply

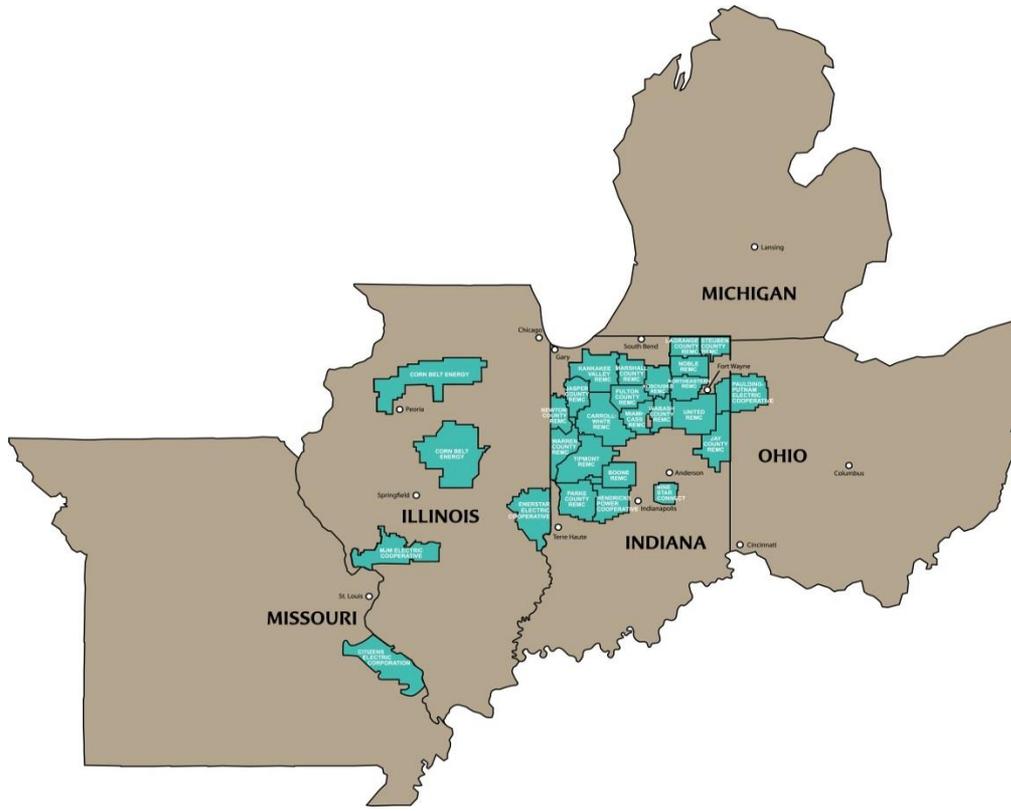
Greg Wagoner - Vice President Business Development

April 30, 2014

Summer Actions

- Historic/Forecasted Peaks
- Capacity Supply Assessment
- Generation Resources
- Demand Side Programs
- Operational Issues
- Emergency Preparedness
- Commission Questions

WVPA Membership



- 26 Distribution Cooperatives and 1 non-member in 4 states
- Operates in both MISO & PJM
- Load in seven Local Balancing Authorities
- Not segregated into separate state operating companies
- Reliability First and SERC Regional Entities

2013 Historic Peak Demand

Summer Peak 2013

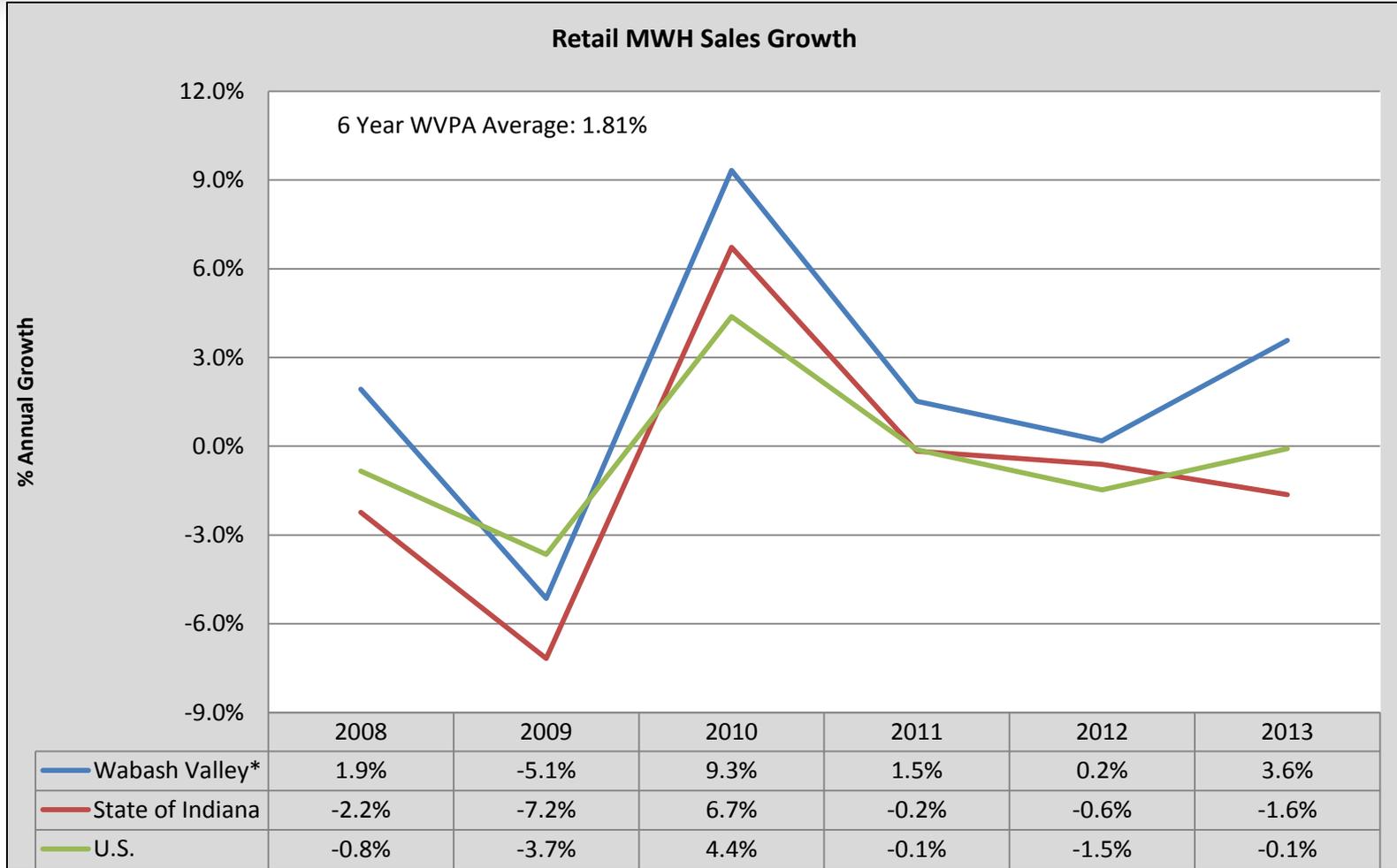
Date: 7/18/2013

Time: HE 20:00 EDT

Peak Metered Member Demand System: 1,774 MW

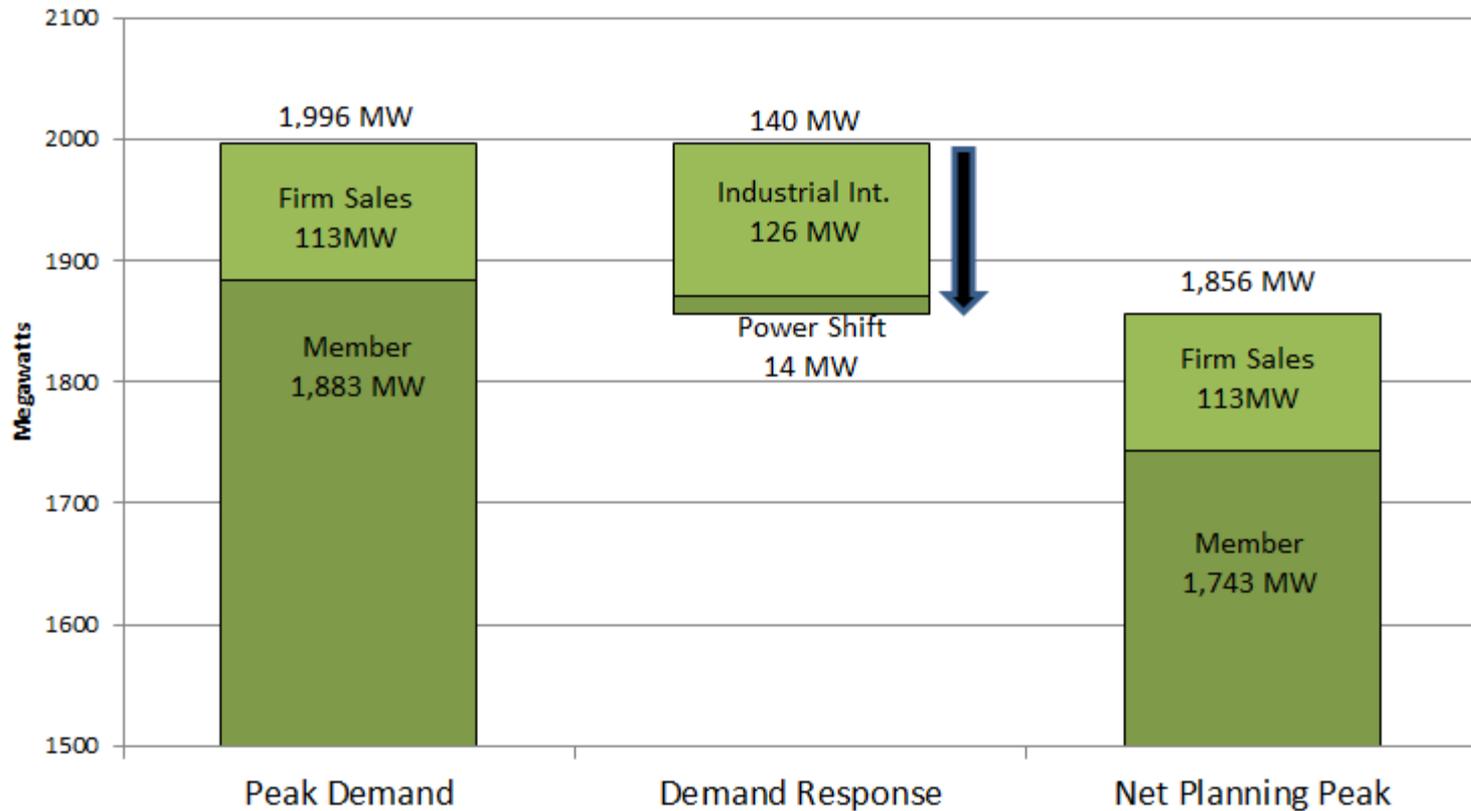
Peak Metered Demand Indiana: 1,343 MW

WVPA's average annual peak growth has been 1.4% and energy growth has been 1.7% over the past five years. The Indiana portion of average annual peak growth has been 2.9% and energy growth has been 1.2% over the past five years.



*Wabash Valley excludes Midwest Energy in 2008-2011 for comparison purposes
Sources: Form 7 and EIA

WVPA 2014 Forecasted Peak Demand



2014 Capacity Reserve Margin

	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>
ICAP	17.8%	15.4%	16.9%	14.7%	14.5%	16.2%
UCAP	8.4%	8.4%	9.3%	7.5%	7.2%	9.5%

PJM - Secured and Supplied Capacity Requirements in RPM Market

MISO – Met Module E Requirement

2014 ICAP Reserve Margin: **14.8%**

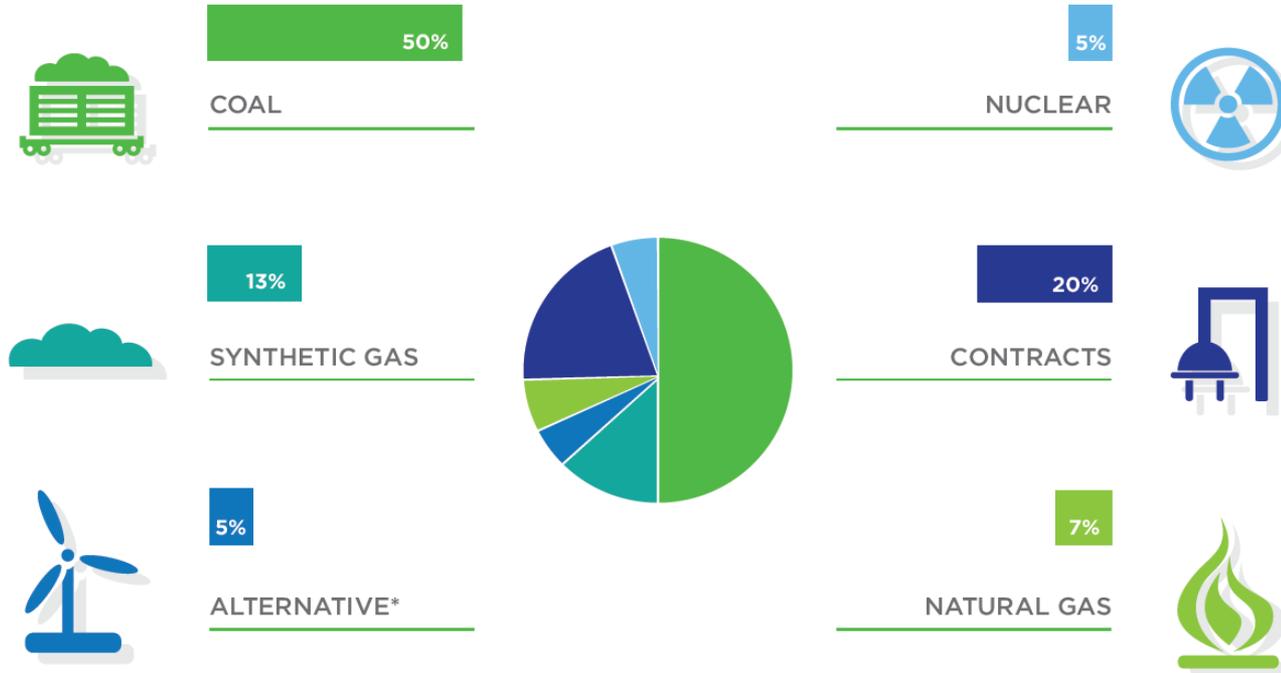
2014 UCAP Reserve Margin: **7.3%**

2014 Power Supply Resources (MW)

	<u>June</u>	<u>July</u>	<u>Aug</u>	<u>Sept</u>
Owned	1,039	1,039	1,039	1,039
Purchase Unit Contingent	352	352	352	352
Demand Response	14	14	14	14
Purchase Shaped/Sched.	446	459	453	432
Purchase 7x24	150	150	150	150
Purchase 5x16	50	50	50	50
Purchase Wind Turbine	<u>39</u>	<u>39</u>	<u>39</u>	<u>39</u>
Total Energy Resources	2,090	2,103	2,097	2,076

2014 Energy Fuel Sources

HOW IS YOUR ELECTRICITY PRODUCED?



*Wabash Valley Power supports renewable energy, and owns landfill gas generation and has contracts to purchase the output from wind farms and biogas generators. Wabash Valley Power sells, separately, the environmental attributes associated with this generation to its members and third parties.

Demand Response

- Power Shift® – In second year of deployment
 - Two-way communication
 - Load information gathered with MDM
 - Water Heaters, HVAC, Pool Pumps, Irrigation, Whole House
- Large Industrial Load
 - participates in PJM program as a Demand Resource
 - Reduces capacity requirements
 - WVPA registers this on their behalf

Power Shift®

Device	<u>2013</u>		<u>Forecast 2018</u>	
	Count	Deemed KW	Count	Deemed KW
Water Heater Switches	8,242	4,945	29,400	17,640
Air Conditioning Switches	3,569	3,569	14,300	14,300
Pool Pump Switches	6	6	12	12
Field Irrigation Switches	358	13,764	370	14,148
Entire House	2,272	6,816	2,300	6,900
Total	14,447	29,100	46,382	53,000

2013 Energy Efficiency Programs

	Annual Actual MWhs	Actual Peak kW	Actual Incentives Paid	Actual # of units
Residential				
Fridge/freezer recycling	2,507	238	\$ 66,990.00	1,914
Geothermal Heat Pumps	426	11	\$ 33,000.00	22
Air Source Heat Pumps	1,371	30	\$ 155,000.00	96
Heat Pump Water Heaters	90	12	\$ 27,200.00	69
Home Performance Pilot	31.69	1	\$ 4,877.50	2
C&I				
Lighting	2,402.66	589	\$ 126,608.27	40
HVAC	63.39	9	\$ 7,210.00	4
Ag	16.75	2	\$ 2,687.50	4
Custom Retrofit	12,885.00	1,803	\$ 528,673.64	21
Business New Construction	1,792.33	359	\$ 330,552.62	15
TOTALS	21,586	3,054	\$ 1,282,799.53	2,187

Lifetime cost per MWh = \$10

Operational Issues

- Natural Gas Deliveries
 - Storage depleted by persistent extreme cold
 - Pipelines issue Operational Flow Orders
 - Mismatched Gas and Electric Market Days
 - Lost optionality value of gas generating plants

Emergency Preparedness

- WVPA operates in seven balance authorities:
 - AEP, Duke, IPL, NIPSCO, Ameren-IL, Ameren-MO, and Consumers
- WVPA operates in two RTO's, MISO and PJM
- WVPA does not directly operate transmission
- Coordinate with balance authorities to provide appropriate WVPA emergency response

Commission Questions_(cont.)

- **DSM**-*Please discuss the impact of energy efficiency programs on ratepayers by customer class.*
- **Restructured Retail Electricity Markets**-*Please discuss the pros and cons of a retail restructured electricity market?*
- **The Outlook for Industrial Rates**-*Where are these rates headed? How might we compare with deregulated states? Emphasis is on next several years.*

Commission Questions

- **The Impact of the SUFG Projection of Low Growth in Electricity Usage**-*How does a low growth (or no growth) era change your business model? What are the implications for the regulatory compact?*
- **The Cost Drivers Behind the SUFG Forecast of Increasing Rates**-*Why is Indiana in a rising cost environment? Please discuss the cost drivers behind rising rates.*

Conclusion

WVPA believes it has adequate resources to meet our member's needs during the summer of 2014