

2009 Summer Capacity Survey

Lee Wilmes - Vice President, Power Supply

Greg Wagoner - Vice President Business Development

Laura Matney - Residential Energy Advisor

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Summer Actions

- Historic/Forecasted Peaks
- Capacity Supply Assessment
- Generation Resources
- Demand Side Programs
- Efficiency Programs
- Supply Assessment
- Emergency Preparedness

WVPA Membership



- 28 Distribution Cooperatives 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

2008 Historic Peak Demand

Summer Peak 2008

Date: 7/29/2008

Time: HE 18:00 EDT

Peak Metered Demand System: 1,609 MW - 62 MW Int. = 1,547 MW

Peak Metered Demand Indiana: 1,171 MW - 62 MW Int. = 1,109 MW

WVPA's average annual peak growth has been 5.0% and energy growth has been 8.1% over the past five years. The majority of that growth is the result of the addition of four more distribution cooperatives to the membership of WVPA.

2009 Peak Demand Projections

	<u>June</u>	<u>July</u>	<u>August</u>
Indiana	1,251	1,350	1,315
Non-Indiana	537	602	594
Less Interruptible Load	<u>(130)</u>	<u>(130)</u>	<u>(130)</u>
Total Peak	1,599	1,752	1,716
Capacity Sales	<u>154</u>	<u>154</u>	<u>154</u>
Total	1,811	1,975	1,933

2009 Capacity Reserve Margin

	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
Reserve Margin	15.5%	13.4%	18.8%	17.2%	15.9%

PJM - Secured and Supplied Capacity Requirements in RPM Market

MISO – Met Module E Requirement

2009 Reserve Margin: **17.8%**

2009 Power Supply Resources

	<u>June</u>	<u>July</u>	<u>August</u>
Firm			
Owned	156	156	156
Purchased	<u>750</u>	<u>767</u>	<u>762</u>
Total Firm	906	923	918
Unit Contingent			
Owned	871	871	871
Purchased	<u>409</u>	<u>409</u>	<u>409</u>
Total Unit Contingent	<u>1,280</u>	<u>1,280</u>	<u>1,280</u>
Energy Supply	2,186	2,203	2,198
Capacity Purchase	<u>125</u>	<u>125</u>	<u>125</u>
Total Resources	2,311	2,328	2,323

2009 Power Supply Purchases

		<u>June</u>	<u>July</u>	<u>August</u>
Unit Contingent-Coal		250	250	250
Unit Contingent-Natural Gas		150	150	150
Unit Contingent-Diesel		9	9	9
Firm 7x24 Physical		192	192	192
Firm Schedulable		135	135	135
Firm Full Requirements		423	440	435
Capacity		<u>125</u>	<u>125</u>	<u>125</u>
Total Purchases	1,284	1,300	1,296	
Unit Contingent-Wind		29	29	29

2009 Owned Resources

	<u>June</u>	<u>July</u>	<u>August</u>
<u>Coal</u>			
Gibson 5	156	156	156
<u>Pet Coke</u>			
Wabash River 1	262	262	262
<u>Landfill Gas</u>			
Deer Croft 1-2	6	6	6
Prairie View 1-2	6	6	6
Twin Bridges 1-3	9	9	9
Wheeler	1	1	1
Jay	2	2	2
Liberty	3	3	3
Oak Ridge	3	3	3
<u>Natural Gas</u>			
Holland Energy	314	314	314
Lawrence Gen(8)	100	100	100
Vermillion Peaking	160	160	160
Total Owned	1,022	1,022	1,022

Direct Load Control

- 60,000 Water Heater switches
 - 20 MW of load reduction
- 6,500 AC or Heat Pump switches
 - 8 MW of load reduction
- Misc. – Irrigation, Pool Pumps, Grain Drying, etc.
 - 10 MW of load reduction
- SDI Participates in IRL Program
 - Reduces capacity requirements

Customer Payback Program

- Calls on members to voluntarily reduce their load
- Members get a \$/MWh payback based on the amount of load they reduced
- 2008 had 61 members enrolled, totaling
 - 18 MW of load reduction

Future Demand Side Programs

- Working on 2009 Pilot Program
 - New Direct Load Control Switches – 2 Way
 - Meter Data Management (MDM) Infrastructure
- Distributed Generation Program
 - Aggregating Existing Generation – 25 MWs
 - New Distributed Generation – 25 MWs

Efficiency Programs

- Energy Advisor
- Touchstone Energy[®] Home
- Weatherization Assistance

Energy Advisor

- Educate residential members on wise use of energy
- Each co-op has an EA on-site
 - 8 are BPI certified Building Analysts
 - Others are pursuing certification
- Through building science principles can save up to 30% on energy – lowering bills and increasing comfort

Energy Advisor

- www.energyadvisor.coop
 - Building science information
 - Existing homes and new homes
 - Home Energy Calculator
 - Based on local rates and weather
 - General information and links

Touchstone Energy[®] Home

- Energy efficient new home program
- Nine built since 11/2007
- Based on Energy Star requirements
- Co-op provides one-year heating and cooling cost guarantee
- Average HERS: 54

Touchstone Energy[®] Home

- Average home size: 3,351 sq ft
- Average annual heating cost: \$307
- Average annual cooling cost: \$110
- Average CO₂ reduction: 31,472 lbs
- Average SO₂ reduction: 213 lbs
- Average NO_x reduction: 81 lbs

Weatherization Assistance

- Program kicks off 1/1/10
- Projected savings are:

2010	2,318,086 kWh
2011	7,593,730 kWh
2012	15,587,130 kWh
2013	23,180,860 kWh

Emergency Preparedness

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

Conclusion

- WVPA believes it has adequate resources to meet our member's needs during the summer of 2009