



STRONGER BETTER TOGETHER



IURC Summer 2014 Capacity Assessment

Indiana Municipal Power Agency

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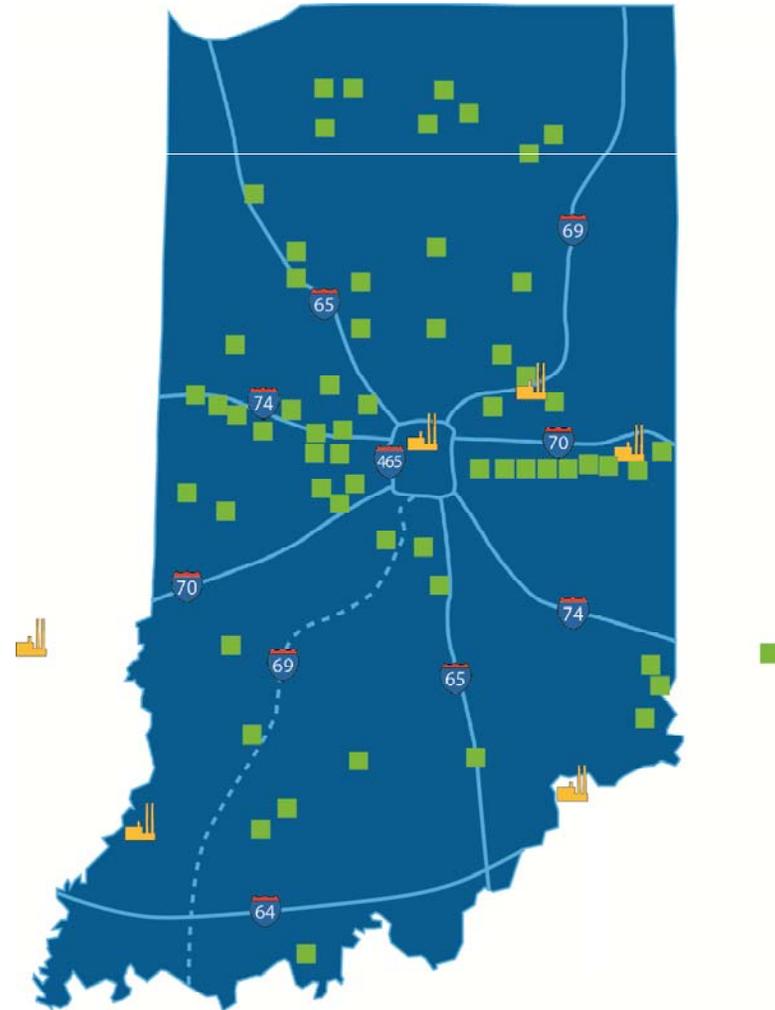
Presentation Topics

- Company Background
- Generation Resources
- EE and Renewable Energy
- EPA Rules
- 2014 Load/Resource Balance
- Summary
- Other Issues



Indiana Municipal Power Agency

- Non profit full requirements wholesale provider to 60 municipally owned electric distribution systems
- Load in both MISO and PJM
- Portfolio of agency-, joint- and member-owned resources and purchased power contracts
- Joint owner in JTS, but does not operate T&D facilities
- Wholesale only, no retail customers or retail meters



Indiana Municipal Power Agency

- Governed by member utilities
- Member communities represent a population of approximately 335,000
- Member utilities governed by local councils and boards



Generating Resources

(Capacity Represents Summer ICAP Ratings)



Gibson 5 - 155 MW



Trimble County 1&2 - 162 MW



Prairie State 1&2 - 206 MW



Anderson & Richmond CTs - 205 MW



Georgetown 2&3 - 154 MW



Energy Efficiency and Demand Response

- IMPA Energy Efficiency Program
 - Residential Home Audit tools
 - Residential High Efficiency HVAC, rebates for:
 - High Efficiency Air to Air Heat Pumps and A/C (>16 SEER)
 - Geothermal Heat Pumps (Closed >17.1 SEER, Open >21.2 SEER)
 - Commercial and Industrial, rebates for:
 - Variable Frequency Drive (VFD) Pumps and Motors
 - HVAC (Heat Pumps, AC and Chillers)
 - Refrigeration, Food Service and Controls
 - Lighting
 - More programs planned
- Demand Response Tariff
 - Emergency DR Tariffs available to IMPA members
 - No participation at this time



Renewable Energy

- Wind PPA
 - 50 MW
 - Iowa Wind Farm
 - Approximately 2.5% of IMPA energy requirements
- Small Solar facilities
 - Three solar facilities, one MW each
 - Richmond, Frankton and Rensselaer, Indiana
 - Two fixed tilt and one single axis
 - Spring 2014
- Net Metering Tariff
 - 6 customers across member service territories

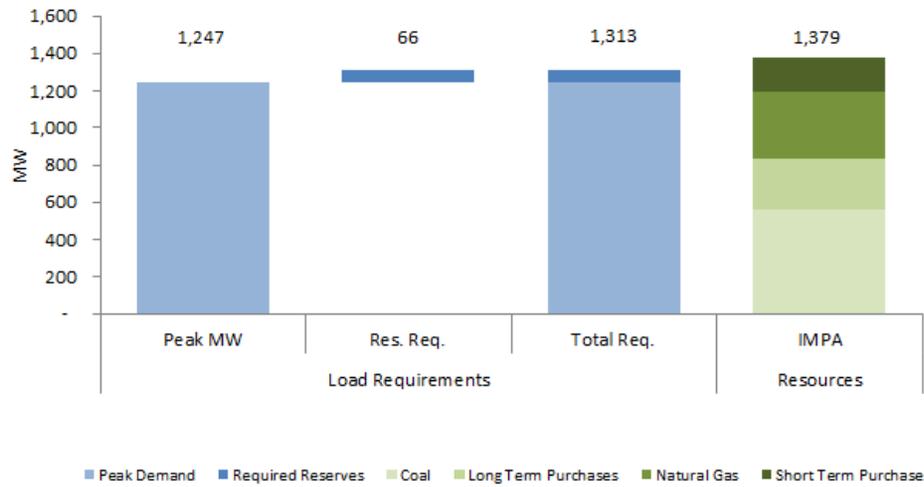


EPA Rules

- In general, IMPA owned generation resources are well-situated.
- Most of IMPA's coal fired resources utilize state of the art systems to control SO₂ and NO_x.
- Gibson #5 (155 MW) will require the most extensive upgrades to comply with MATS. The upgrades will consist of a combination of modifications to the systems to control mercury, particulate, and HCl. The expected work is a combination of particulate matter (PM) control systems (ESP) upgrade, duct modifications, additional monitoring for PM, scrubber structural work, mercury oxidation chemical, and possibly mercury re-emission chemical injection. IMPA is awaiting the outcome of the CSAPR petition being heard by the U.S Supreme Court which could affect future SO₂ emission allocations.
- Trimble County #1 (65 MW) will require an upgrade to the particulate matter control system to comply with MATS. A baghouse will be installed along with new induced draft fans and an activated carbon injection system. The work is expected to be completed by early 2016.
- Trimble County #2 (97 MW) and Prairie State #1 & #2 (206 MW) will not require any modifications or additions to comply.
- IMPA CTs will not require any modifications to comply.



2014 Balance of Loads and Resources



Load Requirements

Category	MW
IMPA Peak Demand Requirements	1,247

Resources - UCAP

Gibson #5	155
Trimble County #1	62
Trimble County #2	83
Prairie State #1	73
Prairie State #2	96
PJM CTs	195
Georgetown CTs	152
Member Generation	106
Purchased Power Contracts	272
Net Market Capacity	185
Total Resources - UCAP	1,379
Required Reserves (per RTO Constructs)	66
Actual Reserves	132

UCAP Reserve Margin 10.6%



Summer Readiness



- IMPA serves wholesale load in both MISO and PJM
- 24 Hour market operations center in Carmel, IN
- Back up operations center at Anderson CT site
- All market operation coordinators are PJM Certified

- In contact with balancing authorities to take appropriate action in case of system emergencies



Conclusion

- IMPA is in compliance with MISO and PJM resource adequacy constructs for the summer of 2014
- IMPA has sufficient resources to meet its member needs during the summer of 2014



Other Issues

- Restructured Retail Markets
- Low Electric Growth - Costs vs Rates



Restructured Markets

- Currently RTO markets provide a very attractive, yet volatile, source of power and energy.
 - Marginal cost energy pricing
 - Capacity cost effectively capped at net cost of new CT
 - Capacity prices have been very low due to large reserve margins
- In recent years, RTO capacity and energy market prices have not been high enough for generating resources to cover their embedded costs, especially new sources.
- Many previously regulated entities in unregulated states have sold (or are trying to sell) generation assets at a loss due to lack of cost recovery via the markets.



Restructured Markets

- Concerns
 - Short term nature of RTO capacity constructs and low gas prices impair fixed cost recovery for existing or new resources.
 - Existing embedded costs are real, writing them off is not an effective solution for any utility, especially for non profit entities with no shareholders.
 - Who will build new capacity in these regions in the future?
 - Financing Risk
 - Market Risk



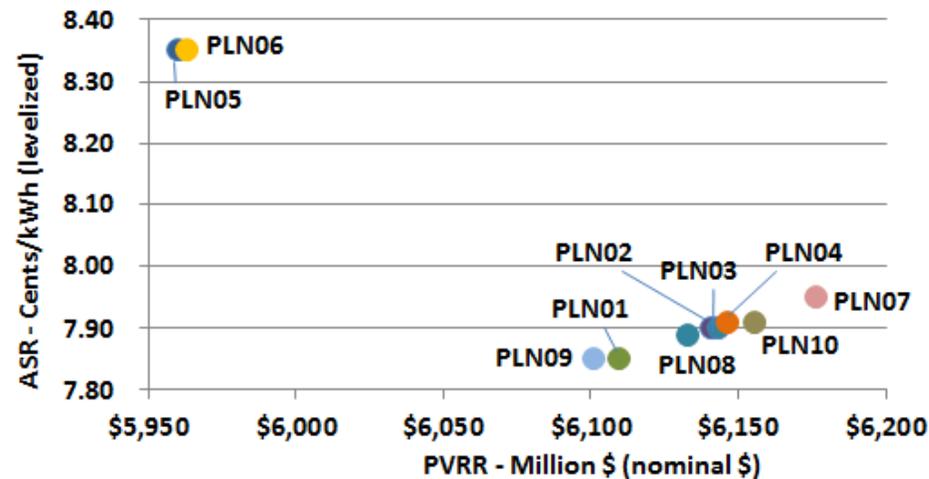
Low Electric Growth - Costs vs Rates

- Most Recent SUFG Forecast
 - Base forecast = 1.17% CAGR
 - w/ hard coded Phase II EE mandates = .74% CAGR
 - Negative/No growth thru 2021
- IMPA 2013 IRP forecast
 - Base Forecast = 1.21% CAGR
 - w/ Modest EE program = 1.1%
 - w/ High EE program = .6%
- Base forecast growth rates are very similar
- Low growth does not change IMPA's business model



Low Electric Growth - Costs vs Rates

- Costs vs Rates
 - Negative/No growth will likely lead to lower total utility **COSTS** vs. a higher growth scenario
 - Negative/No growth will likely lead to higher **RATES** vs. a higher growth scenario



Source: IMPA 2013 IRP

