Essential Factors to Consider in the Future of the U.S. Electric Grid

Industrial Consumer Perspective

INDIANA INDUSTRIAL ENERGY CONSUMERS, INC.

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INDIEC: Who We Are

Indiana Industrial Energy Consumers, Inc. (“INDIEC”) was formed in the 1980s to provide an independent voice on behalf of large volume energy consumers

- **MISSION**: To influence sound energy policy development and decision-making to ensure a reliable and cost-effective energy supply to Indiana industrial energy consumers

- **VISION**: To be an advocate for an energy supply and cost environment that attracts new business and enables existing businesses to thrive and expand
INDIEC: Who We Are

**Industrial Members:**
1. Air Products and Chemicals, Inc.
2. ALCOA
3. Allison Transmission, Inc.
4. ArcelorMittal
5. Arconic
6. BP
7. CountryMark
8. Fiat Chrysler Automotive
9. Eli Lilly and Company
10. Enbridge Energy
11. General Motors
13. Honda of America Mfg., Inc.
14. Ingredion
15. Marathon Petroleum Company LLC
16. Messer LLC
17. NLMK Indiana
18. Praxair, Inc.
19. Subaru of Indiana Automotive, Inc.
20. Tate & Lyle
21. Toyota Motor Manufacturing Indiana
22. U.S. Gypsum
23. Vertellus Specialties, Inc.

**Affiliate Members:**
1. Indiana Cast Metals Association
2. Direct Energy Business
3. EDF Energy Services
4. Impact Industrial Services
INDIEC Quick Facts

- INDIEC members have facilities across Indiana
- Served by all the major energy utilities in Indiana
- About 55,000 employees in Indiana
- Over $560 million in annual electric spend
- Over $312 million in annual natural gas spend
- Over $100 million in annual property taxes
Indiana is manufacturing-intensive

- Manufacturing accounts for about 1 in 5 non-farm employees
- About 28% of the Indiana GDP, highest percentage of any state

- Manufacturing is energy-intensive
  - Energy is a major component of production costs
  - Prices have increased dramatically in recent years

- Subject to intense competitive pressure
  - Energy costs are a material factor in attracting and retaining businesses
  - Affects decisions on plant expansions and closures, investment in Indiana
Federal and Indiana law both encourage development of private generation resources
   - Federal law: PURPA enacted in 1978
   - Indiana law: Indiana Code 8-1-2.4 enacted in 1982

Eligible facilities include renewable energy projects
   - See 16 U.S.C. §796(17); Ind. Code §8-1-2.4-2(b)

Indiana has 38 CHP sites, installed capacity of 2,300 MW

Trend is growing interest in renewable energy, but 2 major obstacles:
   1. Off-site locations require transmission capability
   2. Intermittent power requires standby services
Siting Challenges

- Industrial-scale installations require space
- May be unable to accommodate on-site installations
- Off-site locations require transmission capability
- A private line may be problematic and cost-prohibitive
- Law is unclear whether public utility must provide transmission service
  - Statute requires wheeling if facility 80 MW or less (Ind. Code §8-1-2.4-5)
  - But implementing regulation limits wheeling (170 IAC §4-4.1-1(t))
- Public utility has capability to provide transmission service but adverse incentives
- Continued reliance on grid is needed for off-site projects
Challenges of Intermittent Power

- Industrial facilities are round-the-clock operations with steady energy needs
- Renewable energy sources tend to fluctuate in output
- On-site battery storage is not currently a viable option for industrial facilities
- Public utilities are required by law to provide standby services
  - Maintenance service is power for planned outages
  - Back-up service is power for unplanned outages
- Terms for standby services vary from utility to utility
- Reliance on grid for constant power requirements
Thank you!

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