The Alliance for Industrial Efficiency promotes state and federal policies to support U.S. manufacturing competitiveness through enhanced industrial efficiency. Our diverse coalition of businesses, labor groups, and non-profits work to improve energy efficiency in America’s industrial sector.
CHP offers tremendous benefits to manufacturers, the public & utilities

Significant potential remains

Many barriers deter deployment – but well-designed policies can overcome them
How CHP Fits Into Scope of EO-57 Work Group

In preparing their recommendations, the Secretary and the Work Group shall consider the following:

(1) the establishment of regulations for the reduction of carbon pollution from existing electric power generation facilities pursuant to existing authority under Virginia Code § 10.1-1300 et seq.;

(2) the carbon reduction requirements for existing electric power generation facilities established under § 111(d) of the federal Clean Air Act;

(3) the interaction between electric utilities and regional markets, including PJM Interconnection;

(4) the impact any reduction requirements place on the reliability of the electric system;

(5) the impact any reduction of carbon pollution may have on electric rates and electric bills;

(6) the impact of reducing carbon pollution on low income and vulnerable communities;

(7) the cost effectiveness of pollution reduction technologies that may be deployed;

(8) the economic development opportunities associated with deployment of new carbon reduction technologies;

(9) the implementation and administration of carbon reduction regulations; and

(10) flexibility in achieving the goals of any carbon reduction regulation.
Virginia Energy Use by Sector

- Transportation, 29.6%
- Residential, 26.4%
- Industrial, 18.6%
- Commercial, 25.3%

Source: EIA 2016
CHP Benefits:
1. Manufacturers
2. The Public
3. Utilities
CHP Is Cost Effective

Levelized Costs of Energy across Power Generation Technologies, Q4 2013 ($/MWh)

Source: BCSE 2014
Remaining Potential for CHP

Source: DOE 2016
CHP Technical Potential (Virginia)

Source: DOE 2016
Commercial & Industrial CHP Potential (Virginia)

Industrial On-Site Technical Potential
- Paper, 312 MW
- Chemicals, 629 MW
- Textiles, 174 MW
- Lumber & Wood, 138 MW
- Food, 163 MW
- Other, 228 MW

Commercial On-Site Technical Potential
- Military, 698 MW
- Commercial Office Buildings, 397 MW
- College/Univ., 338 MW
- Hospitals, 163 MW
- Govt. Buildings, 194 MW
- Other, 750 MW

Source: DOE 2016
Industrial Energy Efficiency Can Help Virginia Achieve Clean Power Plan Targets

Source: AIE 2016, State Ranking of Potential Carbon Dioxide Emission Reductions through Industrial Energy Efficiency
Hood Dairy (Winchester, VA)

- Combined heat and power and a 15-MW microgrid
- 4 year payback period (ongoing)
- 25% net savings, year-to-date
- 30% emissions reduction
Barriers to Deployment

- Insufficient utility incentives
- Time- and resource-intensive permitting processes
- Unfavorable standby tariffs
- Inadequate consideration of reliability
Recommendations

- Recognize CHP as a compliance option in state GHG plans
- Exercise the Administration’s convening authority
- Provide streamlined permitting for CHP projects that meet established size and efficiency requirements
- Require consideration of CHP before modifying public facilities and/or critical infrastructure
- Adjust discriminatory tariffs
- Help finance projects
Conclusion

- CHP benefits Virginia’s manufacturers, the public & utilities
- Significant potential remains
- Virginia should adopt policies to overcome barriers:
  - Clean Power Plan/GHG plans
  - CHP working group
  - Streamlined permitting processes
  - Critical infrastructure policy
  - Non-discriminatory tariff rates
  - Utility and state incentives
Alexandra Rekkas
Alliance for Industrial Efficiency
Senior Research Associate
703-717-5594
alexandra@dgardiner.com