

EPA WEBINAR NYSERDA PON 2568



Dale Desmarais

Sales Manager

Aegis Energy Services: Who we are...

- ✓ Large Installer of small modular CHP in Northeast and Mid-Atlantic states
- ✓ In business for 28+ years.
- ✓ Installer of 500+ CHP systems.
- ✓ Privately held company headquartered in MA with offices in N.E. and Mid-Atlantic

Our products:
Aegen Thermopower 75 LE Modules
Induction System



Aegis Synchronous CHP Modules

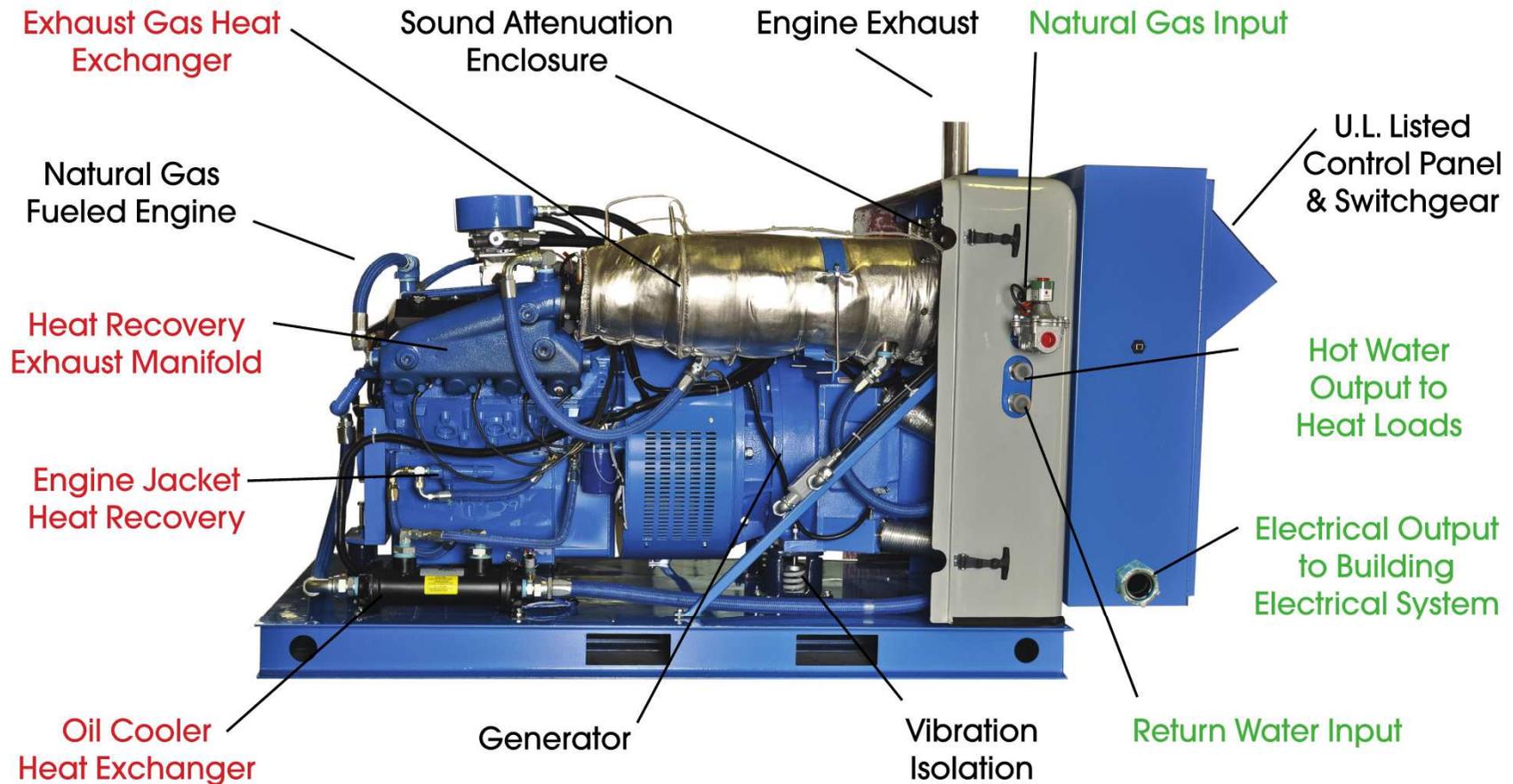
Daily Energy Savings AND stand-by power.

Aegen PowerSync

Aegen PowerVerter



Product Architecture



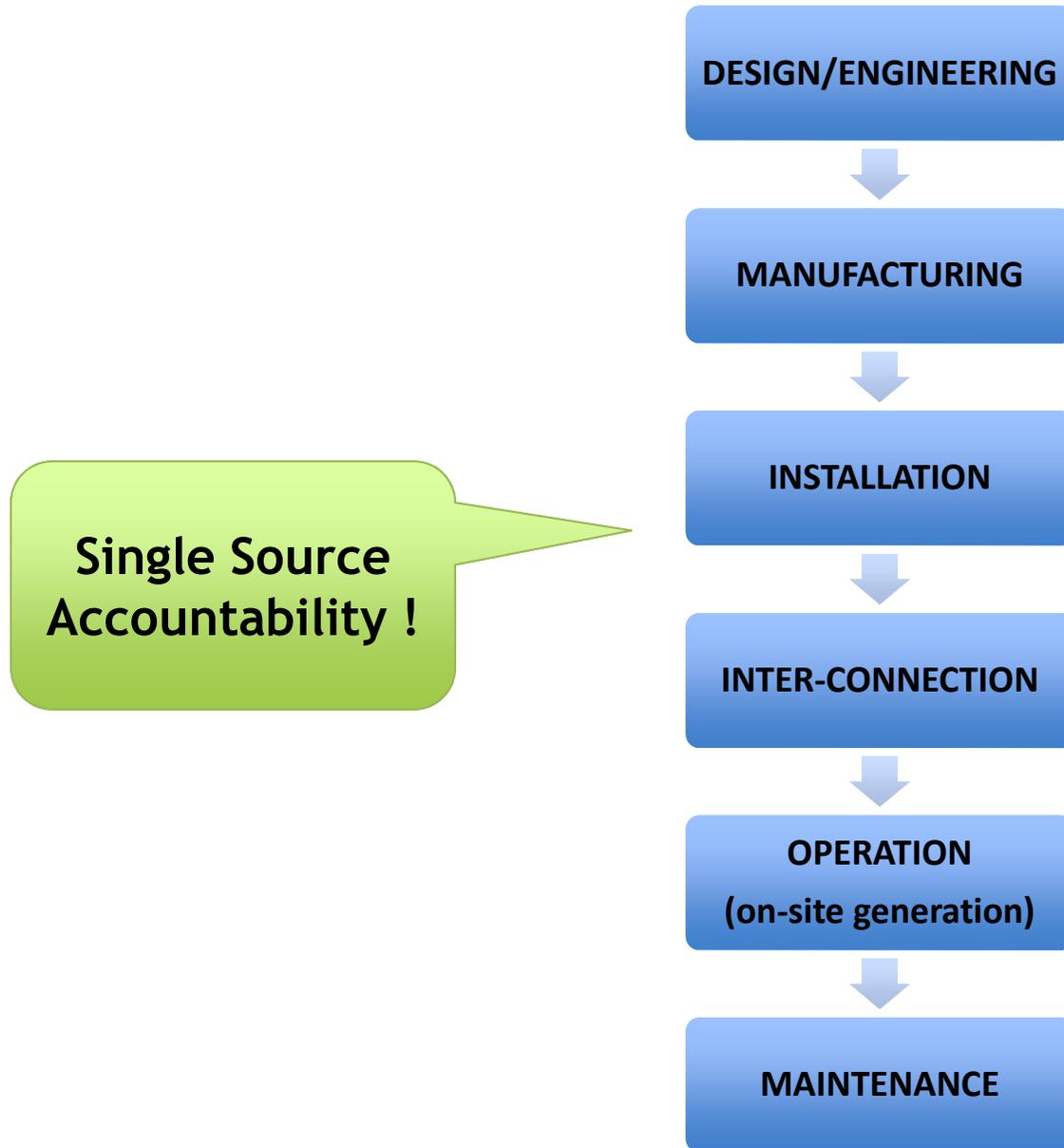
Typical Aegen Installations



Modular and
Scale-able



We are Vertically Integrated



Our Resources

Our in-house staff includes:

- Electrical/Mechanical Engineers
- Turnkey Project Managers
- Energy Analysts/Economists
- Highly Skilled Service Technicians



Comprehensive Maintenance Program



- Same day/ next day service
- Insurance style “Bumper to Bumper” coverage
- 24/7 online system monitoring via IP connection
- All scheduled and unscheduled maintenance
- All parts/labor including engine and generator replacement

End Users

Hotels



Healthcare



Museums



Recreational



Multi-Family Housing



Education



Hurdles For CHP For End Users

- Financing/Capital Requirements (esp black start)
- Lack of education about CHP technology
- Reliable Vendor Selection
- Uncertain outcomes
- Maintenance



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Helps address the Hurdles For CHP *For End Users*

- Financing/Capital Requirements (esp black start) **Addressed by PON**
- Lack of education about CHP technology **Addressed by PON**
- Reliable Vendor Selection **Addressed by PON**
- Uncertain outcomes **Addressed by PON**

Hurdles for CHP For Developers

- Financing/Capital
- Lack of education of CHP technology
- Reaching/locating “good fit” end users
- Regulatory
 - Emissions
 - Utility interconnection
 - Natural gas availability
 - Building permits

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EXPERIENCE AND CASE STUDIES

The Hamilton Manhattan, NY



End User Goals

- Redundancy and Back-up Power
- Additional cost savings
- Complete conversion from #6 oil to natural gas
- Environmental concerns

The Hamilton CHP System

- NYSERDA grant
- One 75kW Aegen PowerVerter module
- Estimated Annual Savings \$100,000
- Plus savings of \$47000 during winter months using original CHP system= \$147,000
- Thermal load used for space heating and DHW
- PowerVerter supplies 20% of thermal load (+11% from 1st system=31% total)
- PowerVerter supplies 43% of electricity load (+23% from 1st system=66%)

Birchwood Towers

Forest Hills, NY



End User Goals

- Cost savings
- Standby power
- Environmental concerns
- Installation of system without using capital

Birchwood Towers CHP System

- 2 Aegen PowerVerter systems (1 per bldg)
- System heat for DHW, space heating, and pool heating
- \$120,000 in projected annual energy savings
- System supplies 34% of total electricity
- System supplies 17.8% of total thermal demand
- NYSERDA grant and Aegis Shared Savings agreement

Conclusions

- NYSERDA “catalog” program valuable in reducing hurdles for both CHP end users and developers thereby increasing adoption of the technology
- The vetting process was immensely thorough (and time consuming) especially when compared to other states’ programs.
- “Catalog” program’s ***comprehensive*** approach more effective in stimulating CHP adoption than other states’ simple funding approach.

Thank you!

How to contact us:

- ddesmarais@aegisenergyservices.com
- Aegis Energy Services (413) 536-1156
- www.aegisenergyservices.com