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## ***Major Onsite Energy Topics***

### **TECHNOLOGY:**

#### **Onsite Power Generation/ Cogeneration Systems**

- Simple/ Combined-Cycle Combustion Turbine
- Reciprocating Engines
- Microturbines and Microturbine-based platforms
- Fuel Cell
- Alternative, including Photovoltaic and Wind Turbine
- Hybrids (combinations of energy technologies per site)
- Point of Use Systems; Replacement of District Heating Systems with

### **OPERATION:**

#### **Onsite Power Generation/ Cogeneration capability**

- Grid Parallel, including Interconnection(s), Exporting and Net Metering
- Full or Partial Grid Disconnect
- Continuous Baseload or Peak-Shaving/ Sharing
- Standby, including applications for Load/ Demand Response Programs
- Top/ Front-end Thermal Process (provides waste heat energy)
- Bottom/ Back-end Thermal Process (utilities from waste process energy)

### **SUPPORT:**

#### **Related Cogeneration Technologies**

- Interconnection Systems w/ Synchronizing/ Paralleling Switchgear
- Privatized Electrical Distribution Networks including 'Microgrids'
- Substations, including Voltage Regulation and Grounding
- Protective Relays including Relay Settings and Coordination
- Interval/ Demand/ Export Metering and Submetering
- Thermal/ Electrical Energy Storage Systems
- Thermal Heat Recovery for Steam/ Hot Water/ Chilled Water generation