D-Gen Pro

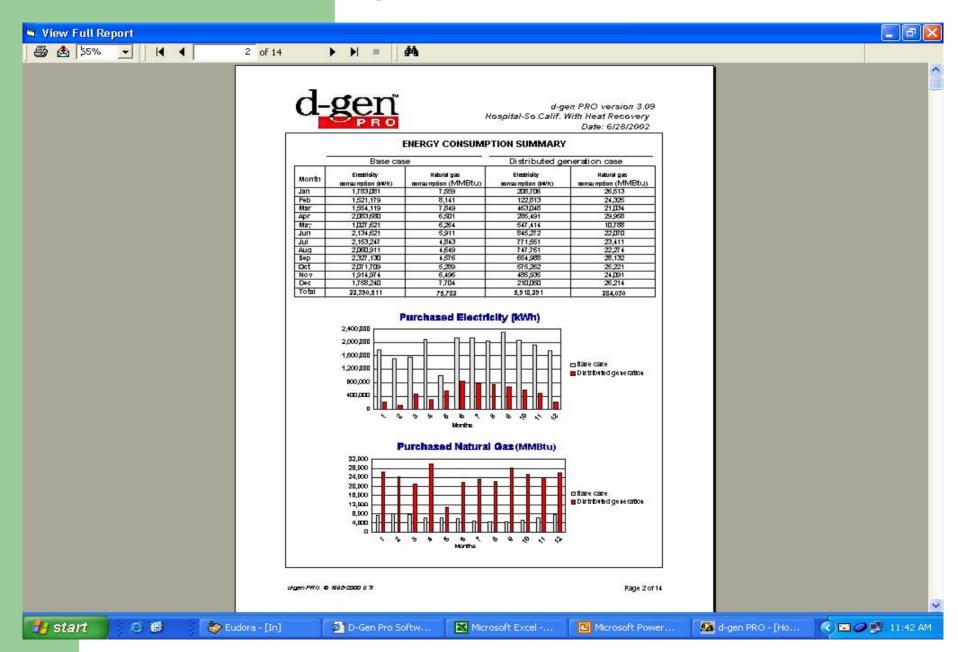
- Developed by Architectural Energy Corporation and Gas Technology Institute
- Primary use: Preliminary screening of CHP heating applications in commercial buildings
- Provides baseline comparison (grid electricity and separate steam boiler)
- Data libraries: Generation equipment, HVAC equipment, utility rates, climate, 14 specific building types (e.g., hospital, office, hotel, apartment, school, retail)
- CHP applications: Hot water, space heating (no cooling options)
- Analysis duration/time step: unlimited; monthly
- Economic analyses: payback, lifecycle, IRR
- Cost: \$695 (http://www.interenergysoftware.com/)

Input to D-Gen Pro Is Through Pop-Up Windows

💁 d-gen PRO - [Hospital-So.Calif. With Heat Recovery] _ - × File Project Data Tools Results Help FRIT OPEN Generator Deployment Strategy Enter generator specifications Configure the deployment strategy by one of the following methods: Details of selected generator Select generator (required) Automatic deployment strategy Select a generator from the following list: Manufacturer. Kawasaki (minimize operation cost) **IES 1200B** Kawasaki IES 1200B (1235 kW) Model -Demand peak shaving Net output 1235 kW Sort list by size or by manufacturer 16378 Btu/kWh Heat rate Generator(s) run when the electric load is greater than kW Default installed cost \$2247/kW Fixed O&M costs \$6/kW per year maximize minimize Facility installation information (required) \$0.007/kWh run time run time Variable 0&M costs Number of generators installed: 2 59.5°F Rated temperature Generators do not run on weekend Rated altitude 0.0 feet T at least one generator can modulate CO2 emissions not available Generator(s) run in the selected time of use periods Deployment strategy NO_x emissions 2.3 a/kWh SO_x emissions not available Current setting: C On Peak Particulate emissions not available Mid Peak 1 Demand peak shaving Mid Peak 2 Heat recovery C Off Peak Set/Modify deployment strategy heat recovery system Configure is installed For specific instructions, press F1 Done



D-Gen Pro Output Is Through On-screen Windows and Printed Reports



D-Gen Pro Output

Separately for baseline (benchmark) and DER case:

- Monthly and annual fuel flows
- Monthly and annual electricity usage
- Monthly and annual energy costs

In comparison of baseline to DER case:

- Waste heat utilization summary
- Internal rate of return (IRR)
- Simple payback
- Lifecycle savings