Energy Performance Indicators (EnPIs) for Common Energy Systems

The table below lists some typical EnPIs for common energy systems in manufacturing. Tracking the EnPIs over time will reveal trends in energy performance. Similar EnPIs can be developed for other energy uses such as facilities, equipment and processes.

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| **Energy system** | **Typical EnPI** | **Notes** |
| Compressed Air | * kW/100 cfm | The quantity of compressed air produced can be measured or can be indirectly estimated based on a compressor performance curve from the measured input power to the compressor. |
| Steam System | * Btu/1000 lbs of steam produced | See DOE Energy Tip: “Benchmark the Fuel Cost of Energy Generation”  <http://www.energystar.gov/ia/business/industry/bnch_cost.pdf> |
| Process Heating System | * Btu/unit of output | Output is typically measured as the quantity of material flow through the process heating system (e.g. For a metal heat treating furnace, the units of measured could be pounds of metal.  For a carpet dryer, the units of measure could be square yards of carpet.) |
| Fan System | * kWh/100 cf | The quantity of air moved can be measured or estimated based on the fan curve and the measured input power to the fan motor. |
| Pump System | * kWh/(gallons) | The quantity of fluid moved can be measured or estimated based on the pump curve and the measured input power to the pump system. |
| Motor | * kWh/unit of output | Motors are typically the drivers for other equipment e.g. pumps, conveyors, fans, etc. and the EnPI will relate to the electricity drawn and the output of the equipment. |