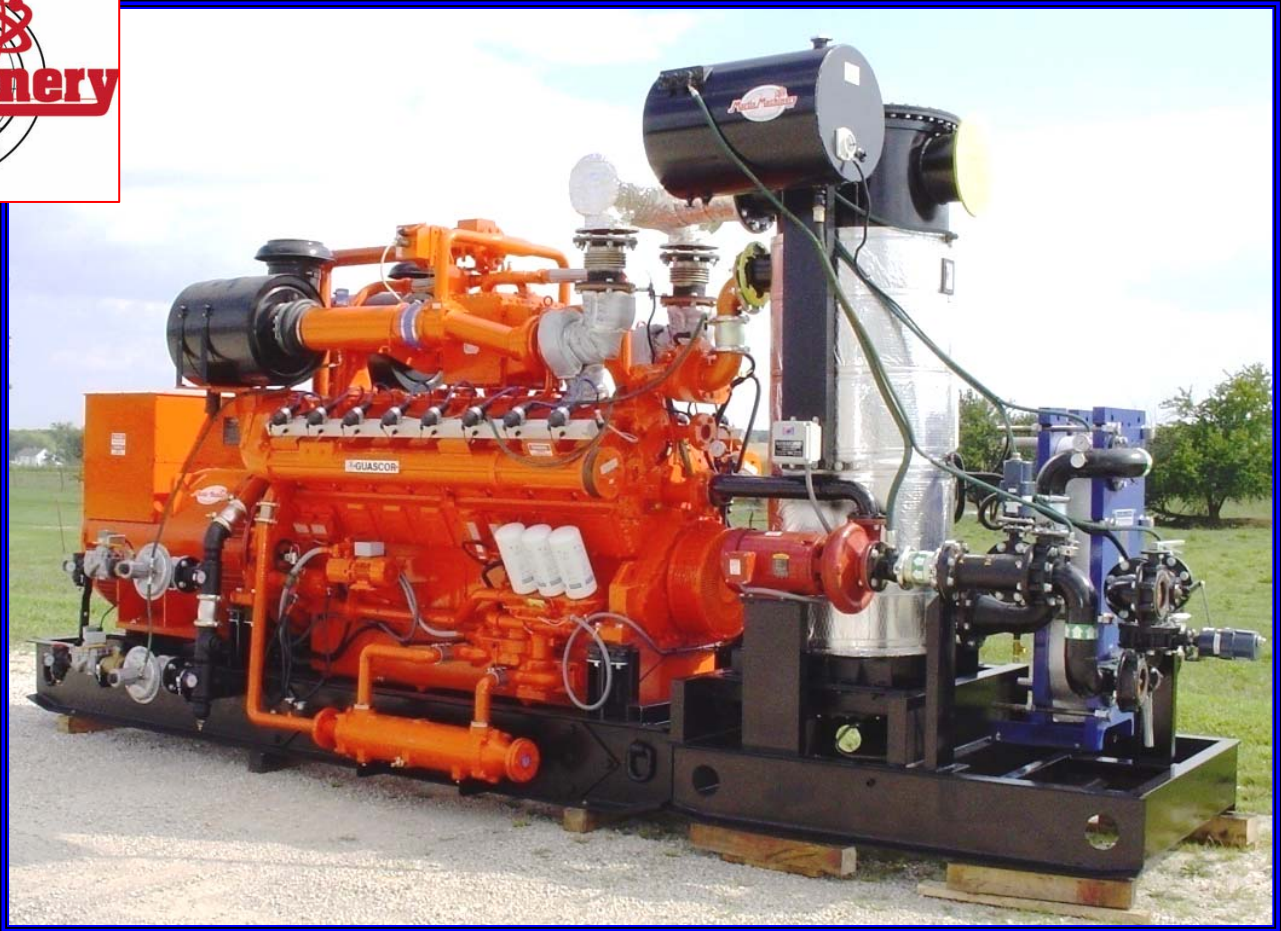
ELECTRIC POWER GENERATORS

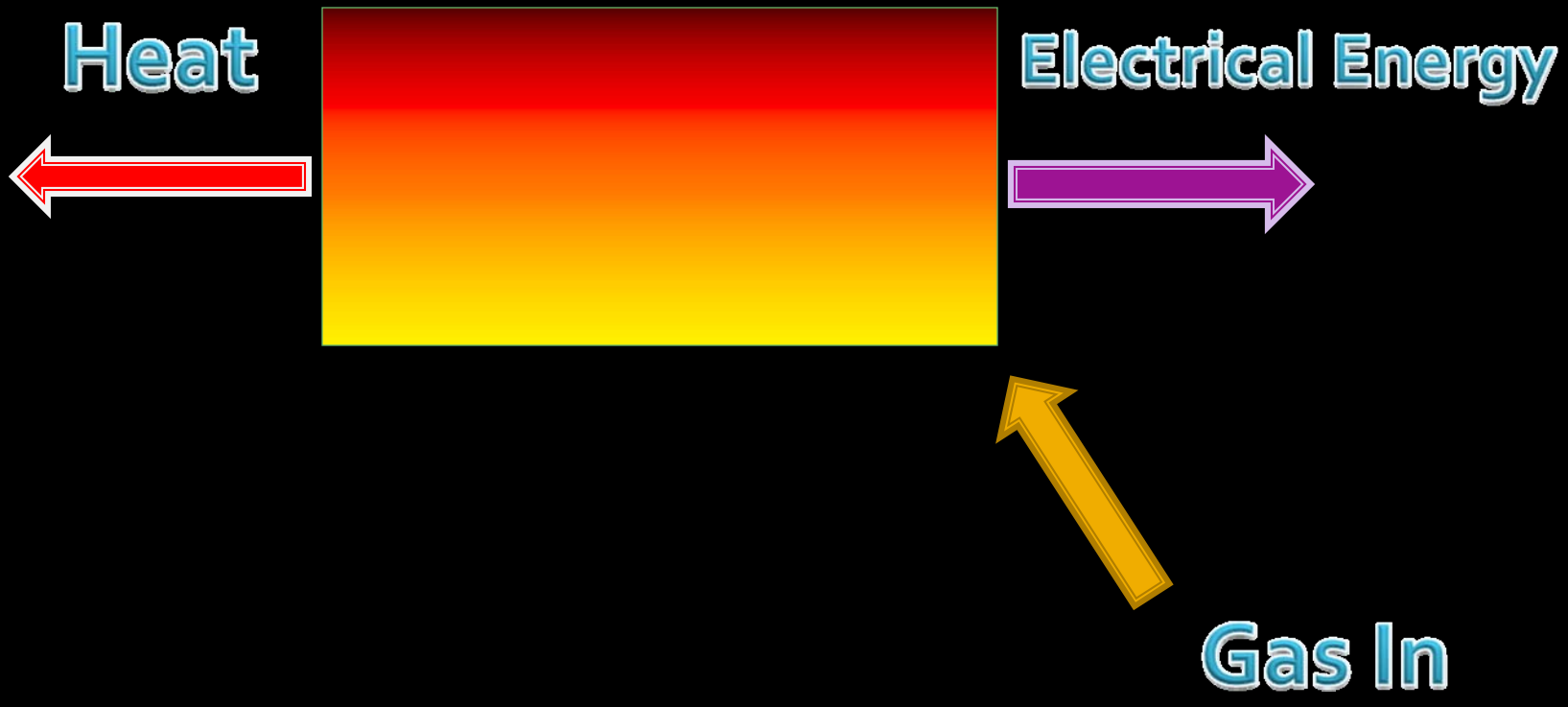
Martin Machinery

SINCE 1976

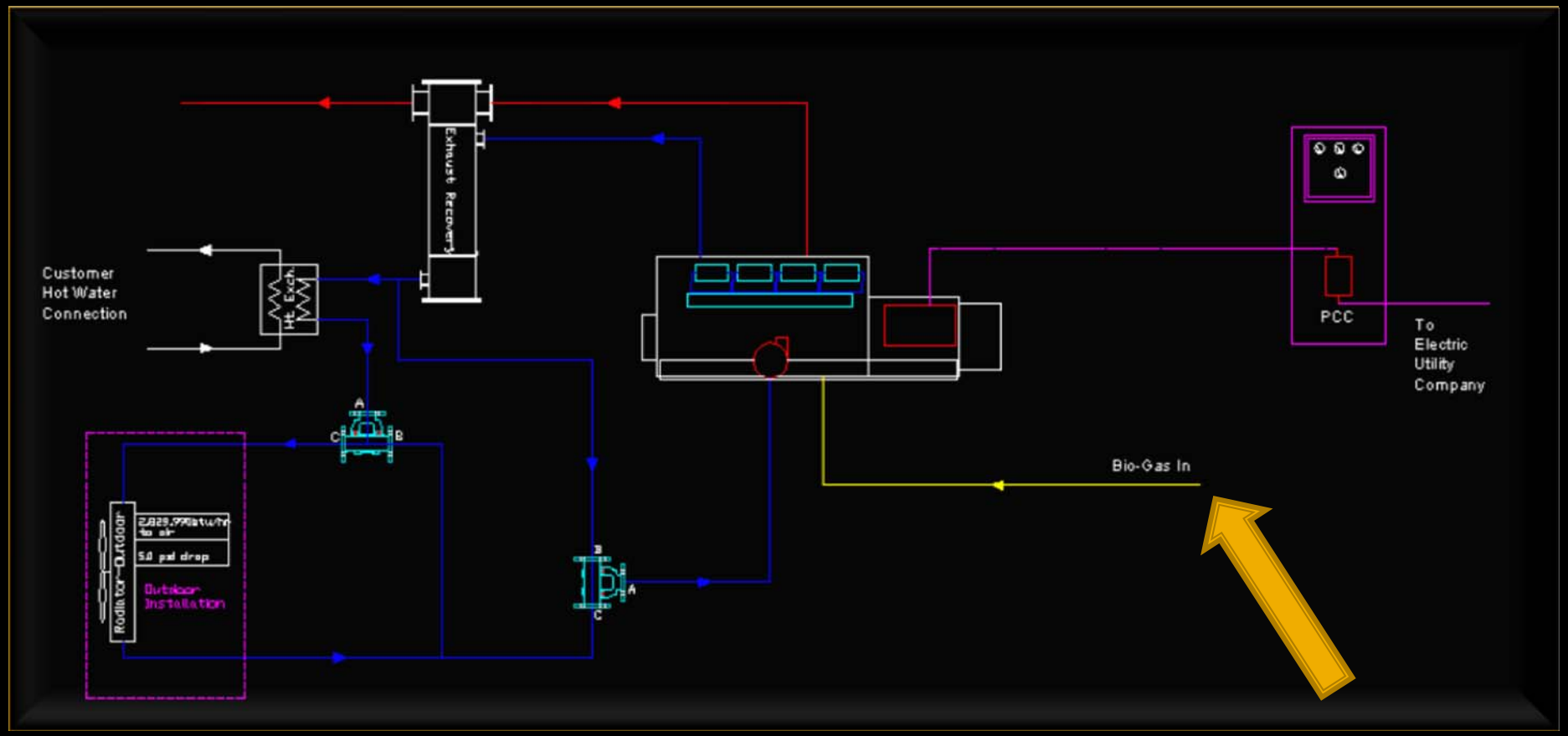


ELECTRICAL & THERMAL USES OF BIOGAS

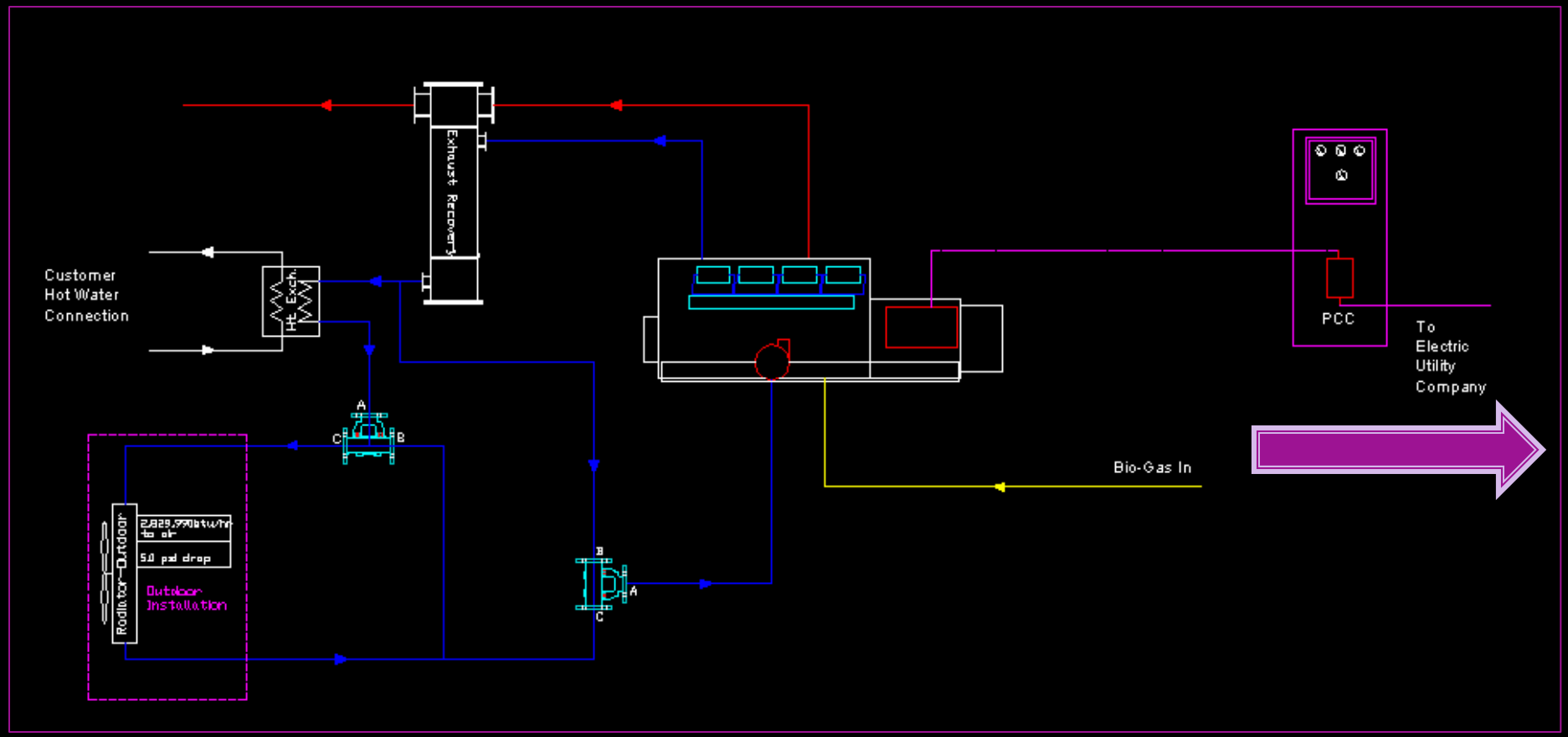
MMARTIN@MARTINMACHINERY.COM



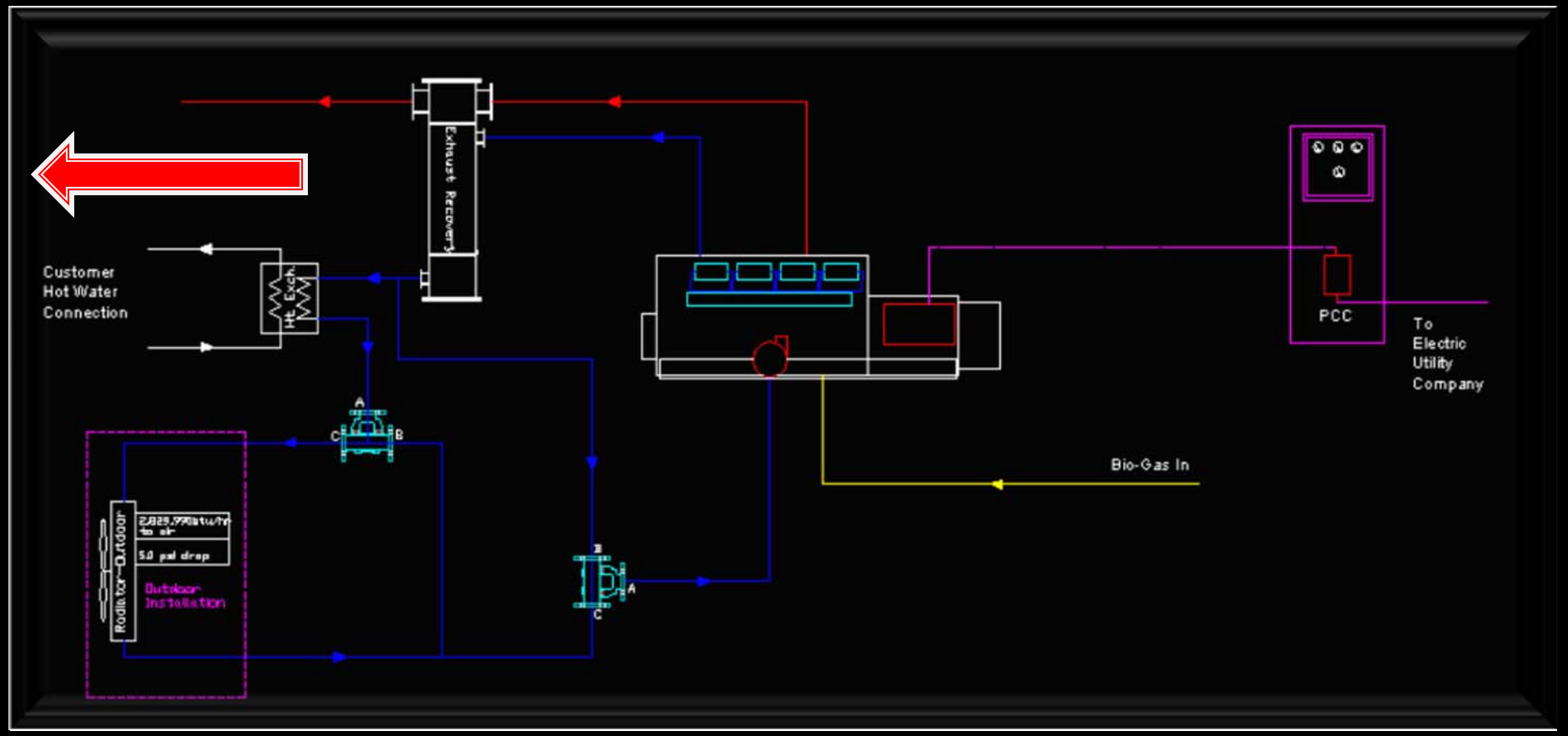
CO-GENERATION
ONE FUEL IN, TWO PRODUCTS OUT



BIO-GAS SUPPLY,
0-1 PSI , DRY, FILTERED,
500 TO 700 BTU PER CUBIC FOOT



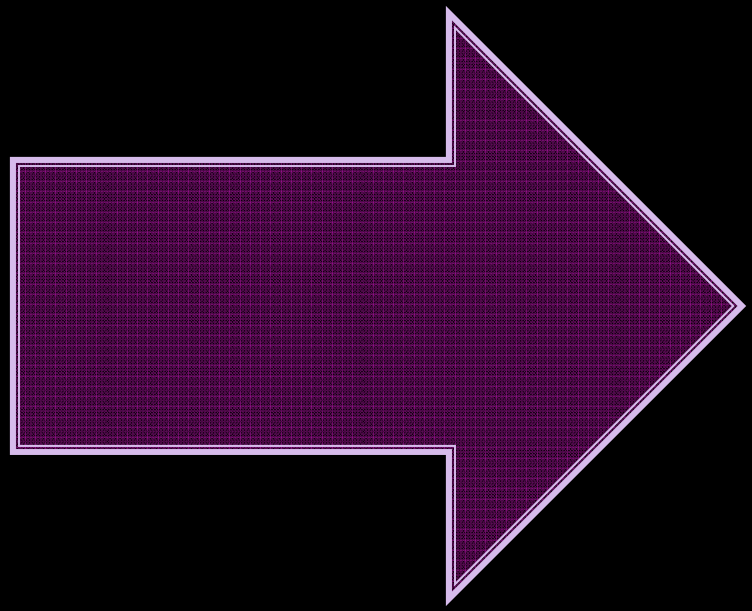
ELECTRICITY OUT,
10,000 BTU OF GAS PER
KILOWATT HOUR ELECTRICITY



HOT WATER OR STEAM
ABOUT 4,000 BTU HOT WATER RECOVERED PER 1 KILOWATT HOUR OUTPUT

ELECTRICY USES

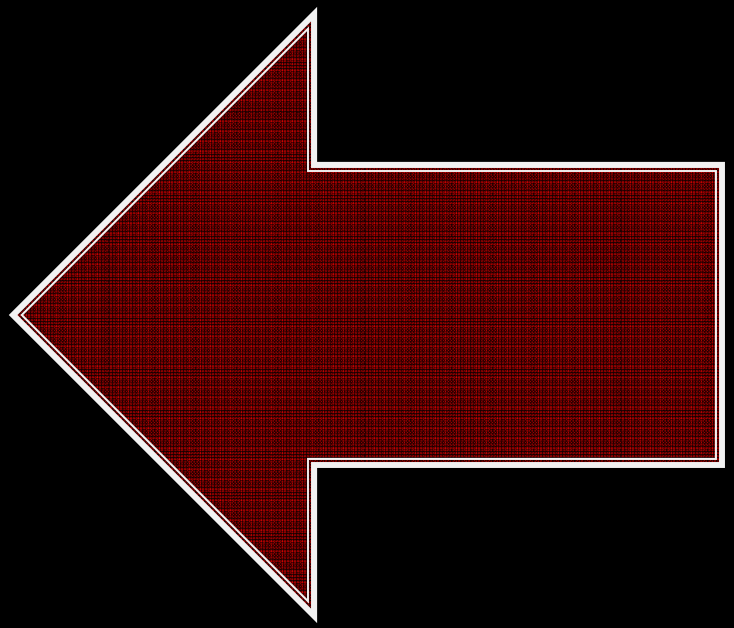
- LOCAL USE, ON SITE
- NET METER
- TOTAL POWER SALES



ELECTRICITY USES

HOT WATER OR STEAM USES

-DIGESTER HEATING
-BUILDING HEATING
-CHEESE PRODUCTION
-ABSORPTION CHILLERS
-STERILIZING WASTE STREAMS
-SWIMMING POOLS



HEAT USES

INPUTS

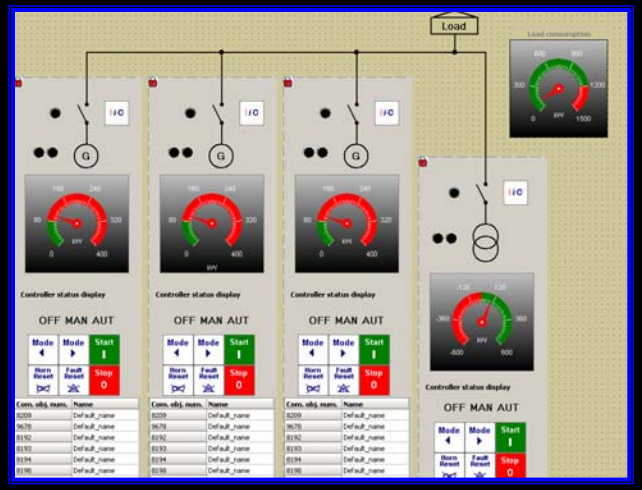
-GAS
-AIR FOR COOLING AND COMBUSTION
-STATION POWER
-PARTS
-MAINTENANCE

OUTPUTS

-EXHAUST
-HOT WATER DISTRIBUTION
-HOT WATER TO RADIATOR OR HEAT DUMP
-ELECTRICAL OUTPUT TO GRID

THE DESIGN OF A CO-GENERATION PLANT

-RELIABILITY, KEEP
-EASY MAINTENANCE, SAVE MONEY AND DOWNTIME
-EFFICIENCY, FOR LONG TERM SAVINGS
-REMOTE ACCESS FOR TECH SUPPORT



WHAT TO LOOK FOR IN A POWER PLANT

ekW

1,200 Bio-Gas 2 x Guascor SFGLD-480 Dairy Complex
Washington, Lean Burn, first of this type we installed.

1,200 Bio-Gas 2 x Guascor SFGLD-480 Dairy Complex
Wisconsin, Lean Burn, First in WI

600 Bio-Gas 2 x Guascor SFGLD-240 Dairy Complex
Vermont, Lean Burn, first in VT

180 Bio-Gas 1 x MAN 6 cyl, 150 cow Family Farm
Ontario, Lean Burn, European digester

100 Bio-Gas 1 x MAN 6 cyl, 100 cow Family Farm
Ontario, Lean Burn, European digester

NEW INSTALLATIONS IN '06-07