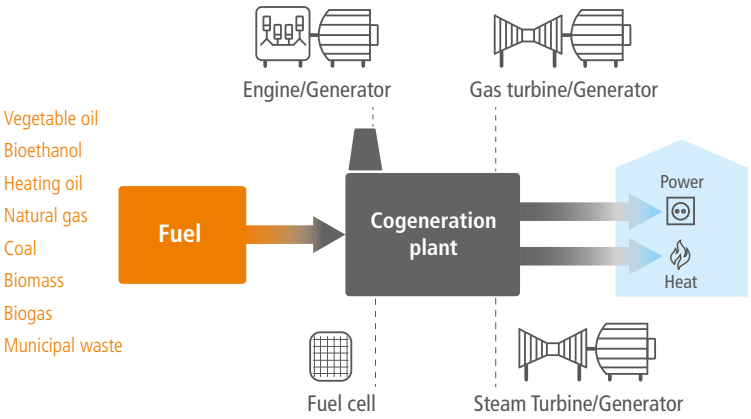
USING PORTABLE EMISSIONS ANALYZERS FOR OPTIMIZING THE PERFORMANCE OF A COGENERATION PLANT

Cogeneration, or combined heat & power (CHP), is the utilization of boilers, turbines, and/or engines to simultaneously generate electricity power and heat that can be useful in several ways such as for hot water, steam, district heating, and water desalination.

The cogeneration principle



Some types of cogeneration process applications include the following:

- Flue Gas Temperature
- O_2, CO, & CO_2
- CxHy Hydrocarbons
- Total NOx (NO + NO_2)
- SO_2 for SOx
- H_2S

Optimizing the overall performance of a cogeneration plant for fuel savings, combustion efficiency, maintenance, safety, and emissions reduction purposes can be done by using a portable emissions analyzer to monitor important parameters at many different locations in the CHP plant including the following:

- Industrial Processes – Power Plants, Refineries, Chemical Plants, Food & Beverage, Pharmaceutical
- Waste Incineration & Management – Industrial, Municipal, Medical & Hospital, Landfills
- Burning Biomass – Pulp & Paper Plants, Saw Mills, Sugar Mills, Peat & Wood Waste
- Institutional – Schools, College Campuses, Prisons, Hospitals

Instrument Solution: Si-CA 230 Portable Gas Analyzer and Si-CA 8500 Emissions Analyzer

The Si-CA 230 Portable Gas Analyzer and Si-CA 8500 Emissions Analyzer can easily be used for accurate measurements of flue gas temperature, O_2, CO, CO_2, both NO & NO_2 for True NOx, SO_2, H_2S, and CxHy hydrocarbons throughout a cogeneration plant.

The instruments include a PC software with wireless connectivity to monitor, graph, and record all measurements and calculations. The Si-CA 230 Portable Gas Analyzer also comes with a free Mobile App for iOS and Android for Real-Time Display & Control of measurement data.