

The critical questions that are often asked early enough in the decision making process to best define the project and avoid costly delays.

# **Combined Heat & Power**

# Have you asked all the right questions?

You have already made the initial decision to pursue the development of a combined heat and power (CHP) project based on a sound assessment of your power and thermal requirements, but have you asked all the right questions? Below are at least a few of the more critical questions that are asked early enough in the decision making process will help to define the project and avoid costly delays.

#### **Electrical Questions:**

What is your local utility's view of CHP and in particular your proposed project?

Will your local utility attempt to levy a stranded asset change? If so, what impact will it have on project viability?

Do you understand the utilities interconnect requirements?

Are you prepared to sever all ties to your local utility and operate in island mode?

If not, what will your local utility charge for standby/backup service?

#### **Fuel Questions:**

Is natural gas available to your site in the quantities and at the pressure that will be required by the project?

Are there opportunities to bypass the local gas distribution company?

Can a long-term gas purchase agreement be secured that will help ensure financial viability of self generation?

Will an interruptible gas supply meet the needs of the project?

Will on-site storage of backup fuel pose safety or environmental problems?

#### Water Question:

If the project includes a steam turbine or cooling equipment, is there an adequate supply of water available to meet both boiler and/or cooling tower match up requirements?

#### **Permitting Questions:**

Have you discussed the project with the local or regional air pollution regulatory agency?

Is the area in attainment for criteria air pollutants?

Will extensive emission modeling be required in order to satisfy regulations?

## **Combined Heat and Power questions**

### Factsheet

If so, is adequate meteorological data available or will a year or more of data acquisition be required in order to complete the modeling effort?

Are you prepared to accept the employment of best available technology?

Are there any local or regional mandates related to minimizing the release of greenhouse gases?

If a catalatic converter is required to meet NOX requirements, has the impact of its storage and use of ammonia been evaluated?

Have you discussed with the appropriate authorities whether the project will require preparation of an environmental assessment or an environmental impact statement?

If the project includes deployment of an emerging technology, i.e. fuel cell, micro mini turbine, stirling

engine, have you discussed the project with local and/or state permitting officials including but not limited to those responsible for facility siting, issuing of building permits, fire marshalls, waste water disposal, etc.?

Getting answers to the above questions will not only help avoid costly delays but could have a significant influence over final system electrical and thermal capacity as well as equipment selection and configuration.

Although asking the right questions cannot assure project success, not asking them will almost always guarantee project delays, cost overruns and possible project failure.

Visit the following website for more information: http://www.energy.gov/ or http://search.ornl.gov/

Other Combined Heat and Power publications available: <u>http://www.energy.wsu.edu/publications</u>.htm

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