

# COMBINED HEAT AND POWER / COMBINED HEAT AND POWER READINESS

***Also known as co-generation, Combined Heat and Power (CHP) is the generation of electrical power and usable heat in a single process. CHP is a well proven process for reducing primary energy consumption, and reducing carbon emissions.***

Guiding the development of power sector projects, the UK's Overarching National Policy Statement for Energy (EN-1), published to provide definitive statements of national policy in order that these do not need to be debated at a local level, states that:

*"In conventional thermal generating stations, the heat that is raised to drive electricity generation is subsequently emitted to the environment as waste. Supplying steam direct to industrial customers or using lower grade heat ... can reduce the amount of fuel otherwise needed to generate the same amount of heat and power separately. CHP is technically feasible for all types of thermal generating stations, including nuclear, energy from waste and biomass".*

However, unlike many other European countries, the UK does not, at present, have widely developed infrastructure for heat and therefore limited consideration has been given in the selection of locations for new power plants to areas with high heat demand intensity.

## **Requirements for Project Consenting**

To tackle this problem and in recognition of the role that CHP can play in meeting the UK's Energy Policy priorities, the UK Government states it is committed to the development and installation of CHP schemes. Indeed, EN-1 states that:

*"In developing proposals for new thermal generating stations, developers should consider the opportunities for CHP from the very earliest point and it should be adopted as a criterion when considering locations for a project", and:*

*"To encourage proper consideration of CHP, substantial positive weight should therefore be given [... to consent applications ...] incorporating CHP".*

Accordingly, as part of a consent application, developer must show that they have fully considered the opportunities for CHP. Typically this is undertaken by submitting a CHP Assessment.

## **Requirements for Project Permitting**

The position of the UK Government is backed by the Environment Agency who state that:

*"Until such a time when wide scale infrastructures / networks for heat are available in the UK, it is prudent to ensure that new plants which are initially required to generate electrical power only have included sufficient flexibility in their design to be ready (without significant modification) to supply heat in the future as and when opportunities become available".*

In cases where there are no immediate opportunities for CHP, the Environment Agency requires that all power plants should be built CHP-Ready (CHP-R) to an extent dictated by the likely future opportunities.

Accordingly, as part of a permit application, developers must build on the results of their CHP Assessment to demonstrate they have fully considered the implications of CHP. Typically this is undertaken by submitting a CHP-R Statement.

## **Our Capabilities and Key Experience**

Using tried and tested methodology, the WPA team are able to prepare both CHP Assessments and CHP-R Statements to support consent / permit applications for power plants operating on a wide variety of fuel types.

Key experience of the WPA team members includes developing the methodology for determining CHP-R and managing the preparation of the CHP-R Guidance (on behalf of the Environment Agency).

## **General Enquiries**

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