## **New Energy and Decarbonisation**

## Striving for a Carbon Zero World - Race to Carbon Zero

After over 40 years in the Oil, Gas and Petrochemical industries, CW International are among those that recognise and are progressing the need to reduce carbon emissions to protect the planet's climate for our future generations.

The use of hydrocarbons for energy production and transportation needs to be phased out if we can. Alternatives for this are being progressed, for example nuclear, wind, solar, tidal, and wave power for electricity and electric and hydrogen for transportation. The major Multinational and National Oil and Gas Companies are a part of this Energy Transition moving more towards Energy Companies and there are many new Companies focused on and developing their technologies.

Hydrocarbons are still likely to be needed for the production of necessary chemicals and products and so the oil and gas industry also needs to be reducing its own carbon footprint as far as possible.

And broader Industry and Government at National and Local level need to understand the realities of the options for the future so that correct strategies and action plans can be put in place and moved forward now.

CW international has the experience and the understanding to help see how these technologies can be applied to your business, your facilities and your community as you strive at least towards Carbon Zero, taking into account the technical, commercial and societal issues.

Cleaner Hydrocarbons - The oil and gas industry has been and is:

- Producing cleaner fuels from natural gas rather by refining it from oil using Gas to Liquid (GTL) technologies, also applicable to bio-fuels, waste to fuel
- Developing and supporting technologies that can run on cleaner natural gas rather than coal or oil or petroleum e.g. Natural Gas, LNG, LPG, Hydrogen

Alternative Power – More alternatives to hydrocarbon fuels are being developed and proving commercial. We now have more potentially viable choices:

- Nuclear Wind Solar Tidal
- Wave
  Hydrodynamic
  Geothermal
  Waste & Bio

**Electric Transport** – Electricity has been used in some modes of transport for years but recent times have seen electric road vehicles especially cars become a reality and it is hoped that improving technologies will reduce charging times and infrastructure to support the millions of users that could switch to electric.

**Carbon Capture** – Technologies to capture carbon emissions before being emitted into the air and even from the air are developing:

- Carbon emissions capture increasingly being deployed in Power Stations, Petrochemical Plants, Cement Factories, Other major industrial users
- Pilot projects underway for taking carbon dioxide from the air in industrial, commercial and residential areas

... Carbon Use and Storage – Captured carbon can be turned into something useful or stored. The oil industry has been using captured  $CO_2$  to help in the production of new oil and gas in some places but now the big focus is on using old infrastructure to simply put captured  $CO_2$  back in the ground just to get rid of it.

**Hydrogen** – Hydrogen has been a fuel used in space exploration and industry for years. Now with modern and improving hydrogen production, distribution and storage technologies and new fuel cell technologies that can turn hydrogen into electrical and mechanical power its use is increasing.

**Decarbonisation of Oil, Gas and Chemicals Production** – The oil industry has been driving down the amount of carbon it has been releasing into the atmosphere through its production activities, and this is seeing increasing focus:

- Venting and flaring Known for years and driven down over the years
- Fugitive Emissions Scale of these more clearly recognised over last few years

For more information on how CW International can help on any of the above please call or email.

## Professional help when and where you need it





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