



Biofuels Energy Industry Workshop CEM28



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Biofuels Energy Industry Workshop (CEM28)

Background:

Fossil fuels that has traditional powered the world has not always been environmentally friendly given its Green House Effect (GHE) through emission of Green House Gas (GHG) that is known to cause negative climate change. With increasing global energy demand, so also the GHE, hence the drive for more environmentally friendly energy.

The development of such alternative energy sources have gained ascendancy resulting in significant technological advancements.

The Major Renewable Energy Sources are:

- Wind
- Solar
- Wave/Tide
- Geothermal
- Biofuels



Biofuels is approximately 3.5% of global transportation fuels today and expected to have doubled (7%) by 2030.

Though environmentally friendly, there are significant challenges for greater utilization of renewable energy as part of global energy mix. Such challenges including those listed below and much more will be covered during the workshop.

- Their lower energy density in comparison with fossil fuels, a disadvantage in the amount of energy they can generate compared to fossil fuels.
- Requirement of large land for small-sized facilities (in comparison with O&G E&P facilities) in order to compare favourably with fossil fuels in equivalent energy generation.

This five day workshop highlights in-depth, the technology behind Biofuels, the current global technological advances, the opportunities and challenges of Biofuels development as a reliable alternative energy, and the economics of Biofuels energy projects.

Content:

1. Introduction to Renewable Energy:
 - Traditional Energy Sources
 - Renewable Energy Sources & their Advantages & Disadvantages
 - Why Renewable Energy?
 - Advantages & Disadvantages of Biofuel.
 - Biofuels Value Chain

2. Biofuel as Alternative Energy Source:
 - The Technology of Ethanol as Energy Source
 - Traditional Biofuel Energy & Development
 - Areas of Biofuel Energy Application
 - Other Sources of Biofuels & The Technological Processes:
 - ◊ Lipid Derived Biofuels
 - ◊ Biomethane
 - ◊ Biohydrogen
 - ◊ Biomass to Liquid (BtL)
 - ◊ Environmental Impact of Biofuels

3. Biofuel Technological Advances
 - High-Yield Biomass
 - Agricultural Residues & Wastes
 - Cellulosic Biofuels
 - Advanced Biofuels e.g. Biobutanol
 - Application of Molecular Biology & Genetics

4. Road Map for Biofuels Development:
 - Identification & Availability Studies on Biofuel Crops
 - Study Appraisal & Consequential Decision on Crop Cultivation Including the Agricultural Economics.
 - National Agricultural Policy for Biofuel Energy Development.
 - Identification & Adoption of Business JV Partners for Biofuel Energy Development
 - Biofuels Business Development & Management
 - Sources of Biomass & Feedstock & Sustainability.
 - Biofuels Policy, Legislation & Standards

5. Current Technological Trends in Biofuels:
 - What companies are doing what in Biofuels Technology development?
 - Other countries' Biofuels Energy development experience.

6. Biofuels Energy Project Economics
 - Typical Biofuel Project
 - Project Factor Inputs
 - Economic Factor Inputs
 - Computing the Economics
 - Measuring the Economic Feasibility & Viability:
 - ◊ Using Critical Financial Yardsticks (DCF/NPV).
 - Biofuels Market.
 - Sources of Financing for Renewable Energy

- Financial Incentives for Rapid Development (Global Country Practices)
- International Trading of Biofuels
- Market Barrier for Biofuels.

7. Field Visit to Biofuels Plants (Ethanol Producing Plant)

Who Should Attend?

- Engineers, Financial Analysts, Accountants, Environmental Science practitioners.
- Managers, Staff of Oil/Energy Companies.

Venue:

To be agreed.

Tuition:

£2,750 +VAT per participant.



5 easy ways to
register or to
make an enquiry:

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