SUPERGEN Bioenergy Hub

Bio-CCS: Can it deliver?

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CORE MANAGEMENT GROUP

- **WP1: Biomass & Waste**
- **WP2: Pre-processing technologies**
- **WP3: Conversion engineering**
- **WP4: Energy Vectors**
- **WP5: System Modelling**

Impact on the Hub

- Improve cooperation
- Integrate partners
- Integrate science & engineering
- Improve Training - SHARE

IMPACT

Impact outside the Hub

- Government
- Industry
- Statutory bodies
- Rest of World
- Society
- Europe

Impact on complementary bodies

CCC | RCUK | ESC | Professional bodies | ERA | ETI | InnovateUK | REA

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Aims and Objectives

Aim:

- The overall aim of the present study is to estimate the carbon reduction potential of BECCS.

- **Objectives**

- Define a feasible biomass oxyfuel combustion system
- Develop a life cycle inventory of **energy, material and fuel** and chemical input and outputs including waste and emissions for different co-firing ratios
- Complete a **life cycle impact assessment (LCA)** to assess potential environmental impacts
- Assess the implications of using different biomass co-firing ratios

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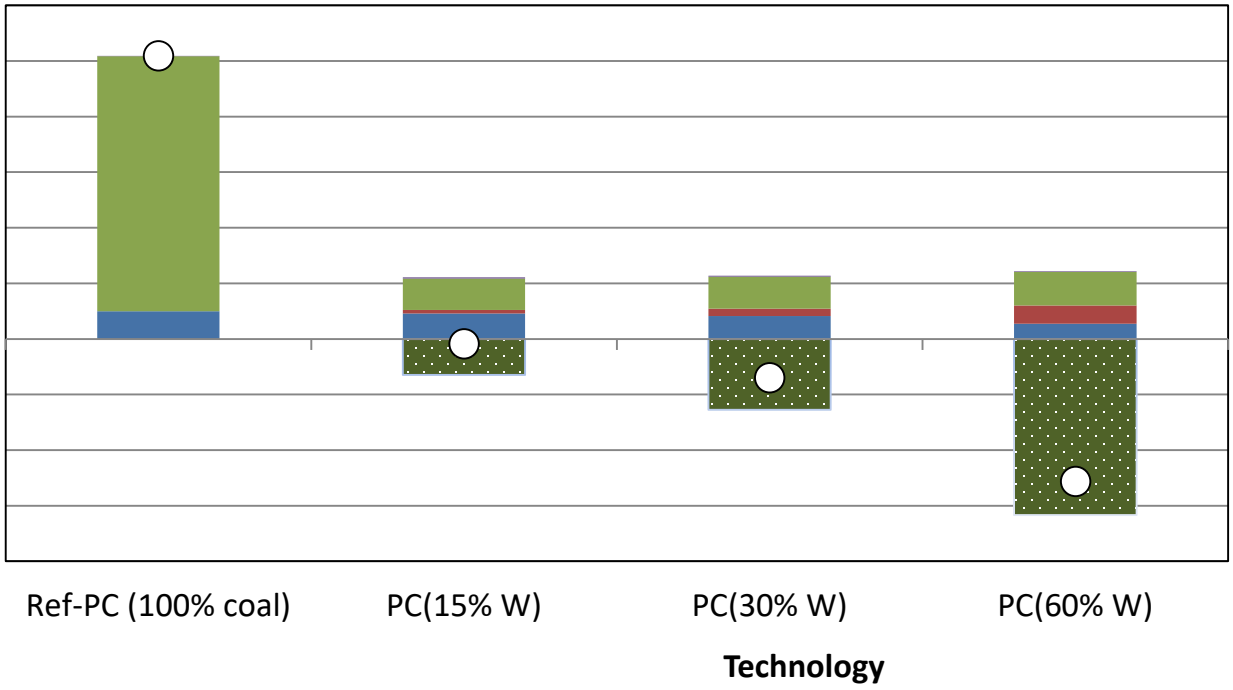
GWP for the various co-firing scenarios. (kg CO_2/MWh)



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Bio-CCS Delivery

Biomass supply?

International policy Framework?

Ensuring GHG minimization?

Engineering cost understanding?

Risk mitigation?

Public acceptability?

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