

## GHGT-11 Technical Themes

The main technical themes for the conference include

1. **Advances in capture technology development (Capture)**. This theme will cover: capture from power plants, gas fields, industrial plants and transportation fuels and technologies (**All sources**); pre-combustion; post-combustion; oxyfuel technologies; fundamental of scrubbing; advanced solvents; membranes; adsorption; novel separation systems; experiences, case studies; environmental impacts; costs (capture specific); outlook for significant cost reductions; retrofitting; capture ready constructions; techno-economic comparisons, chemical looping.
2. **Developments in CO<sub>2</sub> geological storage (Geo Storage)**. This theme will cover: CO<sub>2</sub> Injectivity; storage capacities; monitoring technologies and techniques(**monitoring**); wellbore integrity; trapping mechanisms; site characterisation and selection; modelling tools and approaches; experiences and case studies; remediation and contingency planning; costs (storage specific); environmental impacts, controlled releases and natural analogues; reservoir engineering; risk assessment and management; imaging faults and fractures.
3. **Developments in other storage options for CO<sub>2</sub> (Other storage)**. This theme will cover: coal beds, mineralisation; basalts and other low permeability reservoirs, ocean storage
4. **CCS for industrial sources (non-power) (Industrial Sources)**. This theme will cover: iron and steel; cement; refineries; high concentration CO<sub>2</sub> sources (including natural gas processing, hydrogen production, coal to liquids, gas to liquids, ammonia); distributed CCS.
5. **Transport and infrastructure development (Transport)**. This theme will cover: pipelines; shipping; hubs and transport networks; CO<sub>2</sub> quality issues; source-sink matching.
6. **Towards negative CO<sub>2</sub> emissions (Negative CO<sub>2</sub>)**. This theme will cover: biomass energy use combined with CCS; capturing CO<sub>2</sub> from the air; enhancing natural mineralisation routes; ocean fertilisation; other potential options (inc. bio-char).
7. **CO<sub>2</sub> Utilisation options**. This theme will cover: EOR; EGR; ECBM; CO<sub>2</sub> use for production of algae or chemicals; CO<sub>2</sub> for enhanced geothermal; CO<sub>2</sub> for enhanced recovery from shale gas.
8. **Demonstration projects and major national and international CCS research developments and demonstration programs (Demonstration)**. This theme will cover: new developments; experiences and achievements; pilot projects; lessons learnt; costs; impacts on regulations; developments of best practice guidelines; program overviews.
9. **CCS technology assessment and system integration (Tech Assess & Integration)**. This theme will cover: health and safety issues; whole system LCA studies; CCS and water use; risk assessments; integrated CCS systems; integration and interaction with renewable energy technologies (including geothermal) (**integration with renewables**); integration of CCS and future energy systems (**integration in energy systems**); need for flexibility; impact of value added products on overall CCS economics (e.g. polygeneration with CCS) (**value added products**); energy, efficiency in CCS systems; costs, including comparison to other mitigation options (**costs**).

10. **Commercial issues.** This theme will cover: commercial relationships; value chains; public-private relationships; finance.
11. **Public perception and acceptance of CCS and communication on CCS (Public perception).** This theme will cover: social science research; communication activities and experiences, knowledge sharing.
12. **Energy and climate change policies and CCS (Policies).** This theme will cover: the role of CCS in future energy systems, scenario studies (CCS in energy systems); policy approaches; beyond Kyoto:- UNFCCC and future global climate policy and policy tools e.g. NAMA's (Beyond Kyoto); non-CO<sub>2</sub> GHG emission reduction, policy instruments; carbon tax and CCS obligations; emissions trading schemes, CDM, JI; CCS technology transfer.
13. **Legal and regulatory aspects of CCS and long term liability of CO<sub>2</sub> storage (Legal & Regulatory).** This theme will cover: regulatory and legal developments (Developments); regulatory and legal requirements, implications and permitting (Requirements); liability transfer and long term liability (Liability); emissions accounting, health and safety issues.
14. **Education, training and capacity building.** This theme will cover: reviews; needs; experiences.

Please note that themes with long titles have been shortened in the paper manager, the shorter titles are indicated above in red text.

Once you have registered the details of your abstract, prepare your abstract in **PDF** format.