

Presentation 3

Matthew Healey

Managing Director
Pace CCS

Matt has 24 years of experience as a flow assurance engineer, process engineer, safety engineer, and project manager. Matt is a world leader in the design and modelling of a CCUS pipeline transport networks, with a significant experience on many projects in this field. Matt is also a member of ISO TC265, on carbon dioxide capture, transportation, and geological storage. Matthew is the owner and director of Pace CCS.

EXPERIENCE

2017-date **Pace CCS**
Managing Director

HyNet CCUS

Project manager for end-to-end engineering Concept Selection, pre-FEED and FEED for the HyNet CCS project, including onshore and offshore design, reuse of existing pipelines, process design safety case, definition of fluid specification, two phase flow review, digital twin & supporting engineering.

Porthos CCS

Project manager for corrosion risk assessment and material selection, fluid specification, review and approval of key FEED documentation including Operating Philosophy, Venting Philosophy and end-to-end design.

Moomba CCS

Project manager for compression train integrity, corrosion risk assessment, pipeline and well material selection, pipeline mechanical design, well design, transient operational modes including planned and unplanned depressurisation.

V Net Zero CCS

Expert input to risk assessment, low temperature design, concept definition, basis of design for pre-FEED.

Athos CCS

Project manager for corrosion risk assessment and material selection, liquid droplet transport review, compression train integrity, development of fluid specification.

Baton Rouge Corridor CCS

Project manager for development of design concept for CCS infrastructure, enabling blue and green hydrogen infrastructure. Pre- and post-combustion capture cost estimate. Shipping commercial feasibility study.

CCS Training Course

Developer and tutor for the industry-leading CCS training course to engineers, managers, and regulators. Private course to BP, Shell, Petronas, Woodside, SSE, EBN, and others, plus public courses, with over 250 attendees combined.

ISO Technical Committee 265 Membership

Expert advisor to the ISO TC 265 on CO₂ capture, transportation, and geological storage, as part of an international team of experts from operators and research institutes led by the SA DEM.

EMPIR Metrology for Decarbonising the Gas Grid industry project

Stake holder advisory board to determine technology limits for fiscal metering, virtual metering, and online compositional measurement and control for CO₂ and

H₂.

2014-2016 **National Grid Carbon**
Flow Assurance Owner

White Rose CCS Project

Technical & organizational management of interface between subsurface and subsea aspects of carbon injection wells. Scoping, management, and client technical authority for all FEED and post-FEED flow assurance.

2015 **Eco Inhibitors**
Advisor

2011-2016 **Xodus Group, London**
Production Assurance Manager

2007-2011 **Wood Group**
Flow Assurance Manager

1997-2007 **PCT Engineers, Mustang Engineering, Kashgan Project, Crest Clough Engineers, ABB Service, Woodhill Thornton** – Various roles

PUBLICATIONS

- Luna-Ortiz, E., Szklarczyk-Marshall, K., Tandoh, H. & Healey, M. (2020) Flow assurance challenges in using repurposed facilities for transportation of CO₂, publication pending
- Healey, M. (2019) Quality assurance on large flow assurance projects, SIS Global Forum, Monte Carlo
- Healey, M., Duff, S. & James, J. (2019). Optimization of a subsea design using an evolutionary algorithm. 19th International Conference on Multiphase Technology, Cannes – 5-7 June 2019
- Healey, M., Luna-Ortiz, E., Mistry, K., & Jones, T. (2019). Understanding H₂ gas breakout in CCS pipeline gathering networks, publication pending
- Healey, M., Luna-Ortiz, E., Anderson R., and Sørhaug, E. (2014) Crystal Growth Inhibition studies for the qualification of a kinetic hydrate inhibitor under flowing and shut-in conditions. *Energy & Fuels*, 28 (5), pp 2902-2913, DOI: 10.1021/ef402493x
- Healey, M., Yang, S., Akhiyarov, D., & Winning, G. (2012) Challenges associated with flow assurance modeling of CO₂-rich pipelines, *Corrosion 2012*, Salt Lake City, Utah
- Healey, M. (2011) Challenges Associated with Flow Assurance Modeling of CO₂-Rich Pipelines, All Energy Conference & Exhibition