

Multiphase Flow Capability

Drivers / Challenges

Ensuring a secure, sustainable energy supply / Reducing emissions and mitigating climate change

Targets / Impact / KT

New international standard on wet gas flow measurement

Industry guidance on flare and fuel gas measurement / support for standards

Industry guidance on advanced flowmetering techniques

Wet gas metering to present dry gas levels – impacts on tax revenues, emissions and maximising recovery of UK oil&gas reserves

Accurate flare and fuel gas measurements enabling compliance with environmental regulations and facilitating trading schemes

Improved process efficiency, reduced pollution and tighter loss control to meet increasingly stringent environmental controls

Deliverables

New more accurate correlation for wet-gas corrections & capability to predict under service conditions – 04/10

Determination of flow meter performance for flare gas service – 04/10

Facility characterisation – 04/11

Industry guidance on meter selection – 12/10

New capability: Flow visualisation capability in multiphase flow facility – 12/09

Performance assessment of Coriolis meters in multiphase flows

Performance assessment of advanced metering techniques






Technologies

Wet-gas flow measurement facility & knowledge

New Capability: Traceable reference flow measurement techniques for flare gas meters

Flow visualisation techniques

Coriolis meters for multiphase flows

- Project 08/1.3 
- Project 08/2.1 
- Project 08/3.1 
- Project 09/05 
- Project 09/03 

Enabling Science

Underpinning metrology, traceability and standards plus increasing knowledge of physics, chemistry and fluid dynamics of multiphase fluids

2009

2010

2011

2013

2015