3rd International Workshop

3-4 May 2018
Research Council of Norway
Oslo, Norway
Conclusions

Value chains

- New interest in EU and Japan from Hydrogen as a fuel has the potential for significant emissions reductions and opportunities for CCS.
- In USA the new 45Q is significant to stimulate projects. The required time limit of 6 years to “break ground” may limit activity due to the average 5 years it has taken for current storage projects to be permitted, noting that they were FOAK.
Conclusions

Infrastructure

- Re-use not necessarily easy. More likely to be able to re-use pipelines than platforms
- More R&D on legacy abandoned wells (learn to deal with). Different standards in time, region, purpose
Conclusions

Monitoring

• Permanent Reservoir Monitoring benefits outweigh extra costs, but coverage inflexible
• Different methods informing each other, including trigger methods, so complimentary monitoring crucial
• Marine environment baselines – are learning more
• AUV proving successful for long term surveillance, temporal and spatial, public assurance
• Find anomaly and attribute
• HR4D seismic can be used for characterization of shallow leakage structures and for monitoring the plume during injection
• Microseismic needs background data
Conclusions

Resource assessment

- Can spend too much time on refining broad static assessments – can leapfrog from regional to more local assessment including dynamic, eg SRMS. Resource qualification and quantification will become more important
Conclusions

Projects

• Norway is developing a full scale project on industry and the US is developing a robust offshore research and development program. Japan and Brazil have mature projects ongoing

• 4D seismic very encouraging at Tomakomai – first imaging of CO2 at 60,000t at 1km depth.
Conclusions

Regulations

- Should adapt to learnings
- ISO useful for trust with different actors and stakeholders
- LP scope needs clarification – projects can help test applicability wrt export prohibition
Conclusions

Brainstorming Criteria for International Collaborative Project – (the what and the how, not the where)

• Objective is to share learning by doing from the real projects
• Need roadmap to info sources
• Need an ISS for CCS, or IODP for CCS
• ACT for projects not just R&D
• Use ACT and Mission Innovation
• Could OGCI fund a real project?
Conclusions

Funding

• Funders keener on non-fossil fuel technologies
• CCS value needs better advocacy to funders
• Norwegian project seeking international collaboration
• GCF will use SDGs as one of 6 criteria – CCS lacking evidence-base to support it in SDGs
Recommendations

- Explore models for international collaboration project
- Eg An ACT good for R&D (US joining), so an ACT for projects
- Consider how to build knowledge sharing from hands-on operational projects, including international collaboration project
- Provide a roadmap to existing info sources
- Joint funding between countries has started and should continue
- To survey which DCs would be attracted to offshore storage
- Getting DCs to these meetings. Identify key persons.
- More advocacy to funders on CCS – future NDCs will need CCS, how to make countries aware of their potential. Research community is ready to inform.
- Complimentary monitoring to be build into MVA plans - different monitoring methods informing each other, including trigger methods
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