



Engagement of CSLF-recognized Projects

Summary of survey

CSLF Mid-year meeting

30 April – 4 May, 2017

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Background

- London meeting June 2016:
 - Consensus by the CSLF that the PIRT is to find ways to improve its interactions with CSLF-recognized projects.
 - A new format for projects to report their status was developed.



The form

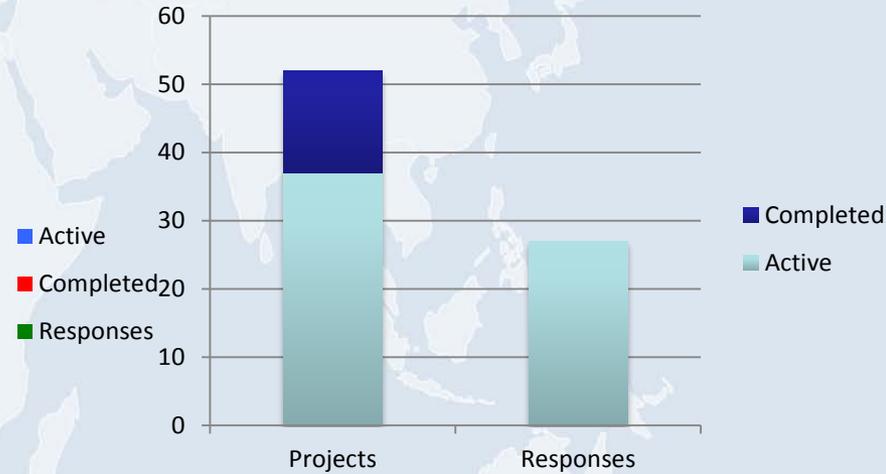
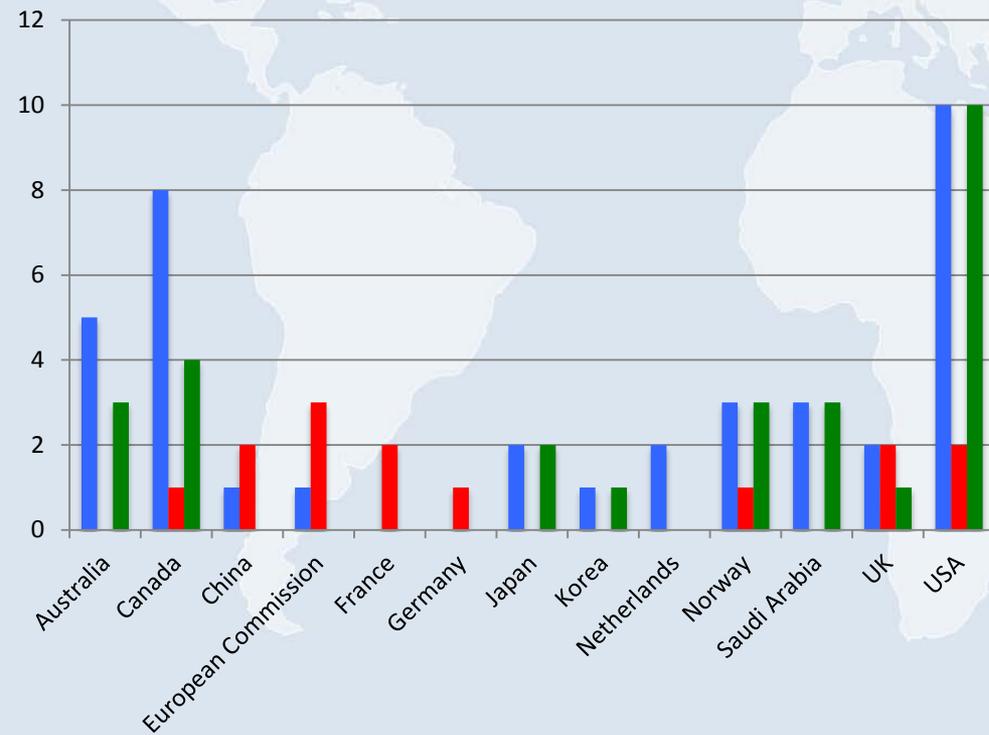
Project owners asked to answer the following questions:

- Project Name
- Brief non-technical description:
- Is the project still active?
- If not, when did it end, and why?
- If still active, what have been the important factors in its continued progress, and why?
- Please briefly describe the overall project timeline (with emphasis on next six months):
- What kinds of sharable information have been produced?
- Please describe any interesting outcomes or gains in knowledge.
- Who is the project's main point-of-contact for the CSLF?



Some statistics

Note some differences from CSLF website: One US project missing on website (Plant Barry); CCP3 and CCP4 are here counted as UK projects. Otherwise based projects classed as active on website, although some of these are known to be completed.



All recognized projects and responses

Number of projects and responses by nation



Findings of general interest to other CSLF activities, including the TRM

- Success factors include:
 - Secure funding
 - Encouragement from owners,
 - Collaboration between stakeholders like industry, academia, authorities and research organisations
 - Good communications with locals and other stakeholders
- Factors leading to project stop:
 - Target reached
 - Lack of funding
- None of the projects reported failure to meet targets as reason for stop.



Other findings (1)

- Some operative or soon-to-be-operative large-scale integrated CCS projects are not on the list (e.g. Petra Nova and Lula)
- Few of the returned project forms address general technology needs (we did not ask), only project specific challenges or next steps.



Other findings (2)

- The questions were answered in a variety of ways with respect to completeness and quality (applies to amount CO₂ captured or stored; available information; outcomes; reasons for progress)
- We did not ask why they sought CSLF recognition, how they contribute to the overall CSLF objectives or what benefits they expect from CSLF recognition



Some recommended actions (1)

- Identify why projects sought recognition, what the benefits have been, and what they expect from CSLF
- Decide what, if anything, what CSLF can offer to the projects
- Decide what CSLF/PIRT wants to achieve by recognising projects



Some recommended actions (2)

- If CSLF conducts a new engagement round, include questions on the above and be more specific on available information and further needs.
- Introduce some form of “CSLF-recognized” branding or logo for projects

The PIRT is requested to review the information received from the projects and decide where we go from here.



Criteria for recognition (from PIRT ToRs)

- Proposals will meet at least one of the following criteria.
 - An integrated CCS project with a capture, storage, and verification component and a transport mechanism for CO₂.
 - Demonstration at pilot- or commercial-scale of new or new applications of technologies in at least one part of the CCUS chain
 - Demonstration of safe geological storage of CO₂ at pilot- or commercial-scale.
- CCS projects seeking CSLF recognition will be considered on their technical merit

Carbon Sequestration Leadership Forum

www.cslforum.org



Australia

Project	Active?	Amount of CO ₂ captured/stored	Information produced	Outcomes	Factors that resulted in progress / Why did it end?	Future plans
CarbonNet	Yes	N/A	3 project reports; 5 storage reports, 3D maps, 2 transport reports.	Opportunities for CCS network with life cycle costs.	Considerable potential for storage combines with federal and state support.	Finalizing plans for appraisal of storage site and to obtain Declaration of Storage and a CO ₂ Injection License by 2020.
Gorgon CO ₂ Injection Project	Yes	Target is 3½-4 Mt per year.	Updates to selected groups (CSLF and IEA) at milestones.	No technical barriers but costly.	Willingness of Partnership + some minor Federal funding.	Continued construction and commissioning with targeted start-up 3Q 2017.
South West Hub Project	Yes	N/A	Numerous technical reports and summaries of community engagement activities.	Modeling indicates that commercial amounts of CO ₂ can be stored by residual trapping.	Federal and state funding support, collaboration with industry, community service.	Additional laboratory and desktop analysis over the next 6-12 months.

Canada

Project	Active?	Amount of CO ₂ captured/stored	Information produced	Outcomes	Factors that resulted in progress / Why did it end?	Future plans
Alberta Carbon Trunk Line	Yes	N/A	Non-technical video (available at Enhance Energy website).	N/A	Continued federal and provincial support.	Finalize financing, start construction for project completion by end 2017.
Boundary Dam Integrated CCS Project	Yes	>1 Mt (from Oct. 2014 through Feb. 2017).	Monthly progress reports on operations of capture facility.	Significant lessons learned on capture at coal-fired power plants that may reduce costs up to 30% on future plants.	Not specified.	Operation continues.
CANMET Energy Technology Centre (CETC) R&D Oxyfuel Combustion for CO ₂ Capture	No (ended Dec. 2009)	N/A	Mostly confidential but some results presented at several international conferences and published in proceedings	Unique data for pilot-scale oxyfuel combustion; development of new burners, proof-of-concept and several patents. Follow-on further research on new generation oxyfuel combustion with focus on high pressure oxyfuel combustion processes.	Work programme completed in Dec. 2009. Technology judged to have reached level of maturity for pre-commercial field demonstration.	Project has ended.
Quest	Yes	Up to 1.2 Mt per year from start in Nov. 2015.	Much information, including engineering and subsurface details (available at Alberta Energy website).	Overall success of the fully integrated project, capture efficiency and reservoir performance better than expected. A range of monitoring technologies deployed. No microseismic	Financial support from federal and provincial sources; operational success the first year of operations.	Continued capture, injection, collection of MMMV data; update reservoir model and revise