

Current Meeting Action Items and Next Steps

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Action Plan 1: Technology Gaps Closure



Lead:	Task Force to Assess Progress on Technical Issues Affecting CCS	
Action:	The Technical Group will identify and monitor key CCS technology gaps and related issues and recommend any R&D and demonstration activities that address these gaps and issues.	
Outcome:	Identification of all key technology gaps/issues and determination of the effectiveness of ongoing CCS RD&D for addressing these gaps/issues.	
Milestones:	Review of CCS technology gaps and related issues	Yearly
	Update of CSLF Technology Roadmap (Module 3)	Yearly/Biannually
	Thematic reports on the status of CCS technology gaps/issues	TBD 2012-2016



Action Plan 2: Best-Practice Knowledge Sharing



Lead:	Projects Interaction and Review Team	
Action:	The Technical Group will facilitate the sharing of knowledge, information, and lessons learned from CSLF-recognized projects and other CCS RD&D. <i>(note: This activity could also be linked with the Capacity Building Task Force.)</i>	
Outcome:	Development of interactive references for assisting next-generation commercial CCS projects, which will include links with other CCS entities.	
Milestones:	Thematic interactive projects “lessons learned” workshops	TBD 2012-2016
	Update of CSLF Technology Roadmap (Modules 1, 2, and 4)	Yearly
	Thematic reports on lessons learned	TBD 2012-2016
	Development of interactive “lessons learned” references *	TBD 2015-2016

* jointly with Communications Task Force



Action Plan 3: Energy Penalty Reduction



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will identify technological progress and any new research needs for reducing the energy penalty for CCS, both for traditional CO ₂ capture processes and new breakthrough technologies.	
Outcome:	Identification of opportunities for process improvements and increased efficiency from experiences of “early mover” projects.	
Milestones:	Workshop to document knowledge and experiences of “early mover” projects	TBD 2013
	Report on successful trends and breakthroughs	TBD 2014





Action Plan 4: CCS with Industrial Emissions Sources



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will document the progress and application of CCS for industrial emissions sources and will identify and recommend demonstration opportunities for CSLF Members.	
Outcome:	Identification of opportunities for CCS with industrial sources. Identification and attempted resolution of technology-related issues (including integration) unique to this type of application.	
Milestones:	Technology workshops on CCS for industrial sources.	TBD 2013-2016
	Outreach activities for CO ₂ -intensive industries	TBD 2012-2016
	Reports on progress and issues unique to CCS with industrial sources	TBD 2013-2016



Action Plan 5: CO₂ Compression and Transport



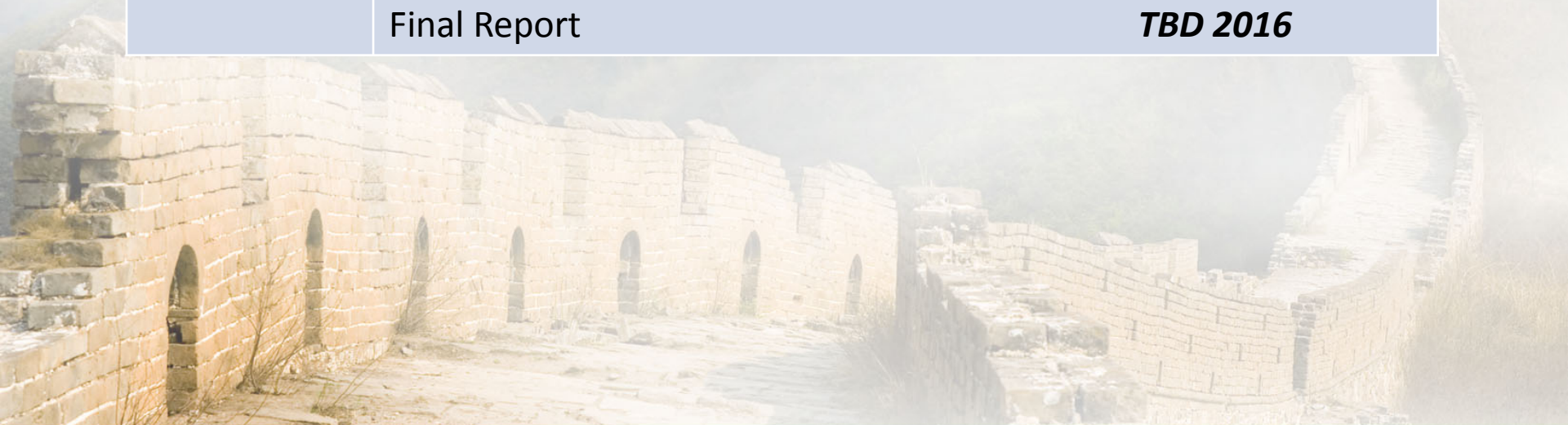
Lead:	Technical Group / New or Existing Task Force or Working Group	
Action:	The Technical Group will review technologies and assess pipeline standards for CO ₂ transport, in particular in relation to impurities in the CO ₂ stream. Issues such as thermodynamics, fluid dynamics, and materials of construction, will be considered. Alternatives to pipelines, such as ship transport, will also be assessed.	
Outcomes:	Identification of optimum technical CO ₂ transport strategies, both for pipeline and non-pipeline alternatives. Assessment of purity issues as they apply to CO ₂ transport. Identification of optimal compression options and alternatives.	
Milestones:	CO ₂ transport workshop	TBD 2014
	Interim Report	TBD 2015
	Final Report	TBD 2016



Action Plan 6: Storage and Monitoring for Commercial Projects



Lead:	Technical Group / New or Existing Task Force or Working Group	
Action:	The Technical Group will identify, review, and recommend standards for CO ₂ storage and monitoring.	
Outcome:	Recommendations of standards for storage and monitoring of injected CO ₂ . The application of such standards should inform CO ₂ crediting mechanisms.	
Milestones:	Interim Report	TBD 2015
	Final Report	TBD 2016

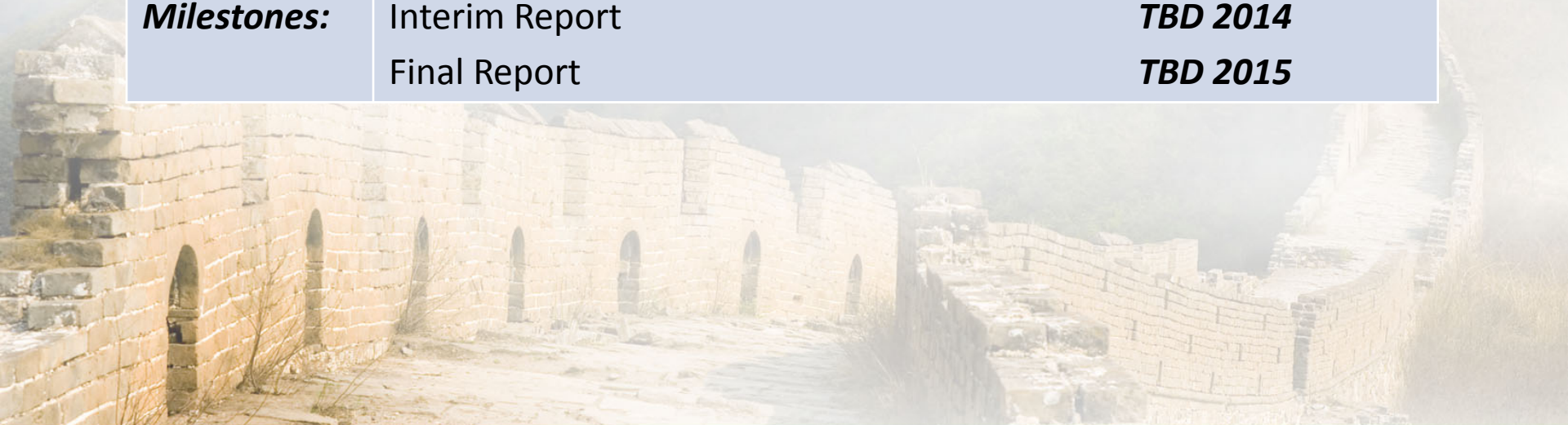




Action Plan 7: Technical Challenges for Conversion of CO₂ EOR to CCS



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will determine technical and economic aspects that can affect moving from enhanced oil recovery (EOR) to carbon storage.	
Outcome:	Identification and recommendation of permitting, monitoring, and reporting requirements for CO ₂ EOR applications that apply for CO ₂ credits.	
Milestones:	Interim Report	TBD 2014
	Final Report	TBD 2015

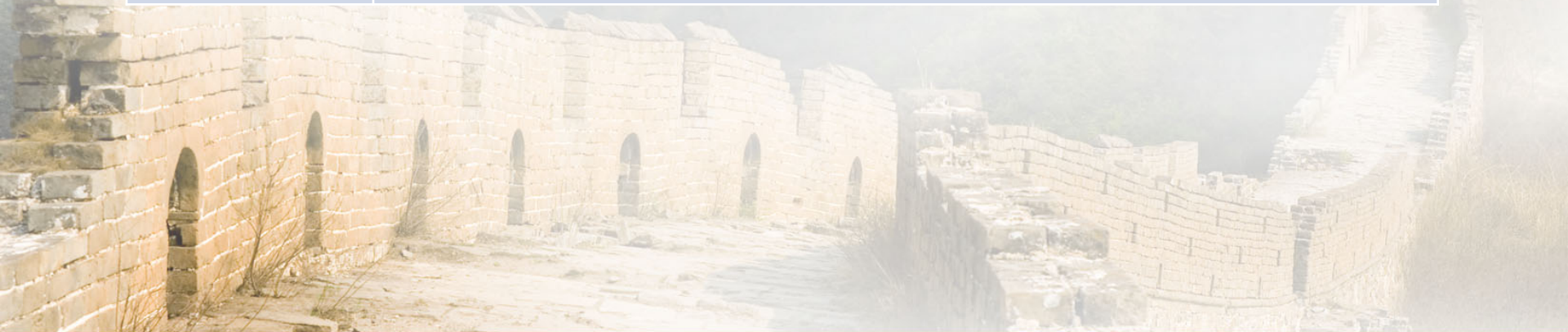




Action Plan 8: Competition of CCS with Other Resources



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will examine criteria for assessing competing development priorities between CCS (particularly CO ₂ storage) and other economic resources. <i>(note: This could be undertaken as a Joint Policy and Technical Group activity.)</i>	
Outcome:	Identification and recommendation of criteria for determining relative economic viability of CO ₂ storage sites.	
Milestones:	Interim Report	TBD 2014
	Final Report	TBD 2015





Action Plan 9: Life Cycle Assessment and Environmental Footprint of CCS



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will identify and review methodologies for Life Cycle Assessment (LCA) for CCS, including life cycle inventory analysis, life cycle impact assessment, and interpretation of results.	
Outcome:	Identification and recommendation of criteria for determining the full range of environmental effects for CCS technologies.	
Milestones:	CCS LCA technical workshops	TBD 2014-2015
	Interim Report	TBD 2015
	Final Report	TBD 2016





Action Plan 10: Risk and Liability



Lead:	Risk Assessment Task Force (or participation in new joint Policy-Technical Task Force)	
Action:	The Technical Group will identify and assess links between technology-related risks and liability.	
Outcome:	Development of proposed guidelines for addressing long-term technology-related risks with respect to potential liabilities.	
Milestones:	Risk and liability workshops	TBD 2013-2014
	Thematic report with proposed guidelines	TBD 2015

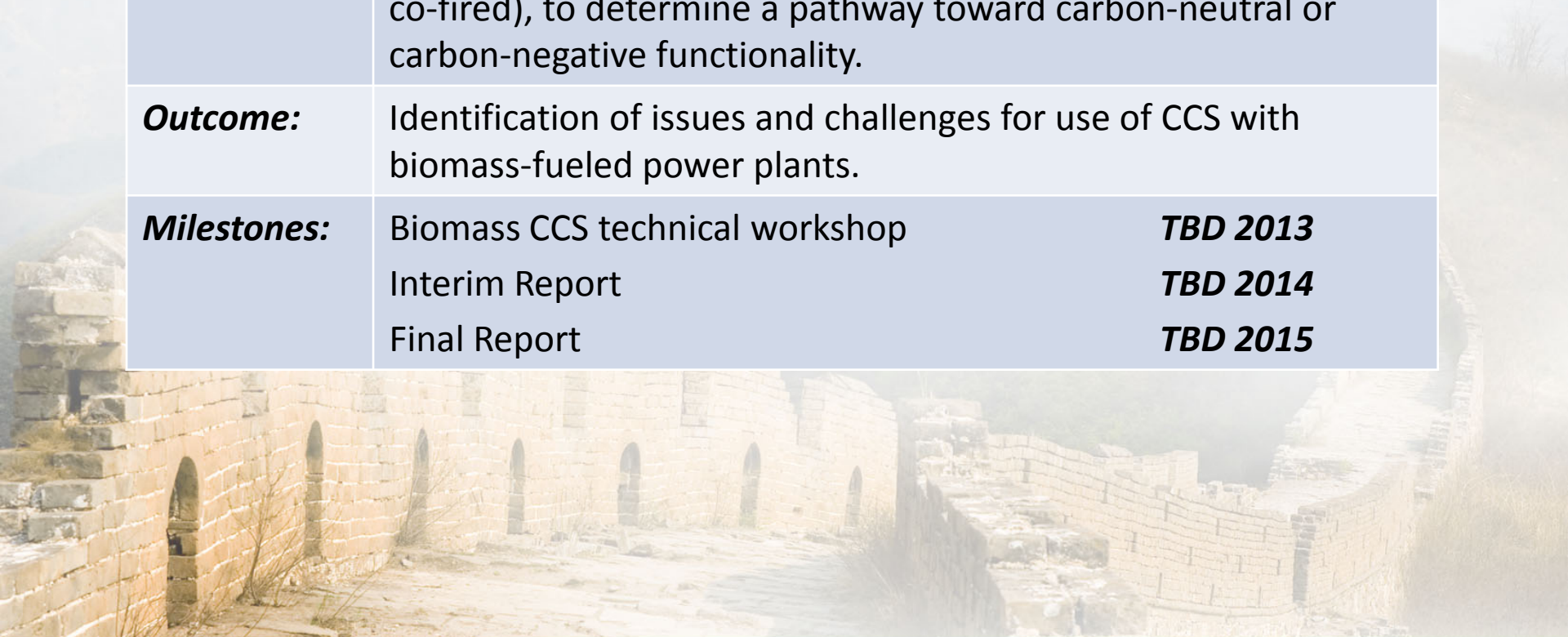




Action Plan 11: Carbon-neutral and Carbon-negative CCS



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will investigate technical challenges in use of CCS with power plants that utilize biomass (either pure or co-fired), to determine a pathway toward carbon-neutral or carbon-negative functionality.	
Outcome:	Identification of issues and challenges for use of CCS with biomass-fueled power plants.	
Milestones:	Biomass CCS technical workshop	TBD 2013
	Interim Report	TBD 2014
	Final Report	TBD 2015

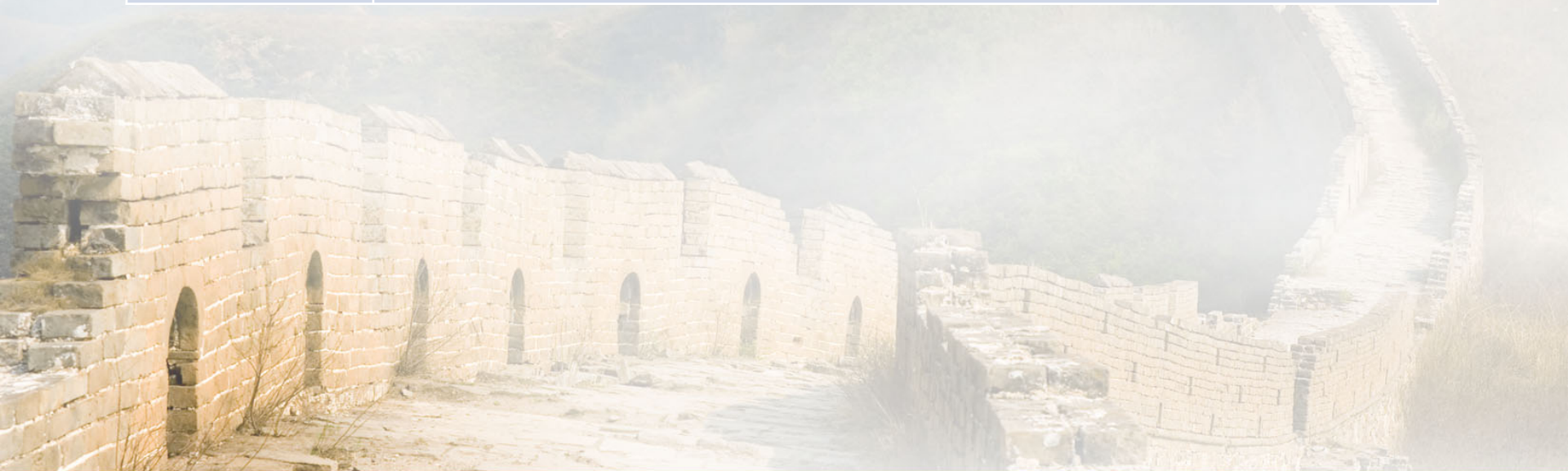




Action Plan 12: CO₂ Utilization Options



Lead:	Technical Group / New Task Force or Working Group	
Action:	The Technical Group will investigate CO ₂ utilization options.	
Outcome:	Identification of most economically attractive CO ₂ utilization options.	
Milestones:	Interim Report	TBD 2013
	Final Report	TBD 2014





THANK YOU!