

The Role of Emitters in the Danish CCS Value Chain

Market status and emitter business Case



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The Danish CCS market today

Danish CCS tender concluded with Aalborg Portland as sole winner, and Project Gaia rejecting role as marginal bidder

Significant costs spent on project development among Danish emitters – not all emitters willing to commit more Devex

CRCF regulation in place – while Microsoft has paused its CDR credit purchases

Significant uncertainty exists in the market regarding the future Danish support and subsidy framework

On-shore storage projects are developing - however, no FID has been reached yet

Across several value chain participants, focus is currently shifting towards Sweden and Germany

Typical risks - emitter's perspective

Key risks



Unmature value chain – including interface risks



Difficult to find large buyers of CDR-credits with long commitment periods



Design, construction and integration



Providing finance for capture facility – both equity and debt



Complex contract structures



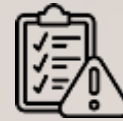
Lack of experience developing similar highly complex projects



Planning and permits



Uncertainty of avoided costs



Tender-specific risks



Stakeholder management

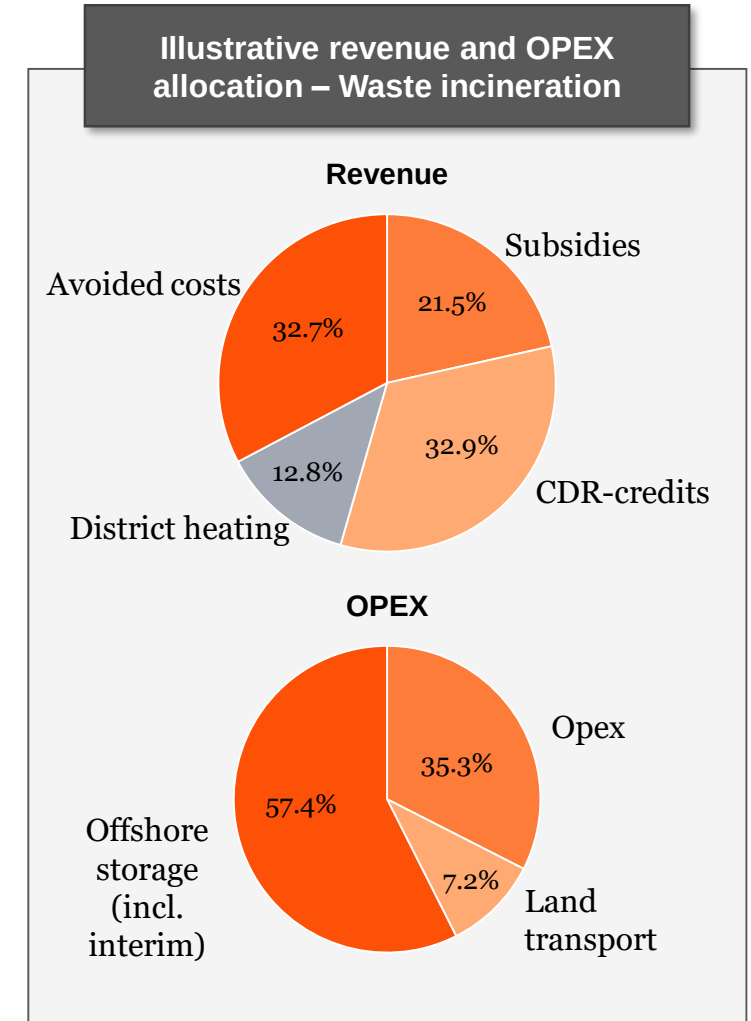


Difficult to align project milestones – with value chain and tender specific milestones

Business case drivers across different emitter archetypes

- *Avoided costs are not a central driver for all emitters*
- *Access to subsidies is a necessary condition to reach FID*
- *Difficult to secure financing due to immature value chain and new revenue streams*

Overview of key revenue and cost drivers – DK emitters				
	Waste incineration plants	Biogas plants	Cement- and lime producers	Biomass
Avoided costs				
Emission tax	✓		✓	
CO ₂ tax	✓		✓	
EU ETS costs	✓		✓	
Revenue				
CDR-credits	✓	✓	[✓]	✓
Price premium		✓	✓	
District heating	✓		✓	✓
Subsidies (operations)	✓	✓	✓	✓
OPEX				
Electricity	✓	✓	✓	✓
District heating	✓		✓	✓
O&M	✓	✓	✓	✓
Other OPEX	✓	✓	✓	✓
CAPEX				
CAPEX	✓	✓	✓	✓
Subsidies (CAPEX)	✓	✓	✓	✓



Q&A

Who am I?



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