

THE CCUS HUB PLAYBOOK

A guide for regulators, industrial
emitters and hub developers

POLITICAL DECISION-MAKERS



4. GETTING STARTED

4.1 POLITICAL DECISION-MAKERS

As net zero targets become mainstream, government officials at national, regional and local levels need solutions for decarbonizing existing heavy industry, as well as infrastructure for new clean industries to thrive. CCUS hubs can play an important role help industrial regions to keep existing jobs and attract new ones, accelerate the adoption of low carbon hydrogen across many

sectors and create the infrastructure for carbon removal technologies. With momentum picking up in countries around the North Sea, in North America and Asia, what was once seen as an expensive, unproven technology is becoming a cost-effective decarbonization option for industries that have few alternatives currently available to them.

WHAT DO YOU NEED TO KNOW ABOUT CCUS HUBS BEFORE YOU START?

All the technologies required in the CCUS hub value chain are functional and in use. Developing the market and the business models are the main challenges in these early hub developments.

For now, government support is required to tackle four main challenges:

- Incentivize emitters to invest in capturing their carbon dioxide emissions so they can maintain competitiveness until the carbon value is high enough to create a level playing field.
- Incentivize potential carbon transport and storage operators to invest in infrastructure – providing a business case despite the lack of a sufficiently high and stable carbon price.
- Address challenges throughout the CCUS value chain like performance risk and counterparty risk.
- Establish the permission space for a CCUS hub.

In the absence of sufficiently high carbon prices or mandates, governments are using a range of tools in different combinations to support CCUS hubs. These include feasibility study grants, capital grants, tax incentives, contracts for difference, regulated assets base, low carbon standards and public procurement requirements.

READ MORE

- › Why should governments support CCUS hubs?
- › Why do CCUS hubs need government support?
- › What kind of policy enablers can support CCUS hubs?
- › What are the policy support models used in early hubs?



WHAT ARE THE POLICY LESSONS LEARNED SO FAR?

Understand and align objectives

- Be clear why are you doing the project
- Make sure that the goals of government, emitters and hub developers are all moving in the same direction
- Establish priority objectives and build your policy framework around them
- Establish clear no-goes or boundaries; be flexible on things that are less important

Define roles

- Be clear on the different roles in the project – for example, the state as enabler sharing costs and risks, letting companies do what they are good at, such as selecting technologies

Build trust

- Create a forum to bring together government, emitters and storage service providers
- Co-develop national CCUS strategies
- Build confidence with a step-by-step process, showing good faith in feasibility studies, negotiations and other project stages, and articulating progress made

Design incentives

- Don't force industry to get on board, encourage them with incentives
- Understand companies' business models in order to incentivize them effectively
- Develop commercial models with industry up front so that the major risks are allocated before negotiations start
- Make sure incentives enable a long-term business rather than being purely subsidy dependent
- Get the incentives right, then let industry make their own decisions – they are making huge investments and things can change, so they need flexibility
- Look forward – ensure that policies incentivize scaling
- Align incentives with industrial strategy

Take care of regulations

- Work to harmonise international regulations (such as the London Protocol on transporting carbon dioxide), so they are appropriate for CCUS
- Be aware of changing protocols, standards and emerging regulations

- Broaden regulations on transport and storage to deal with the multiple emitters and carbon dioxide streams involved in hubs – existing regulations were developed for point-to-point CCUS
- Develop regulations to deal with cross-border transport of carbon dioxide, including carbon accounting systems – for example, how to account for emissions captured in one country but stored in another

Public and political support

- The right narratives are critical for gaining political and broad societal support. Emphasise that CCUS hubs are addressing climate change in a constructive way. They are needed to deal with heavy industry, not a fig leaf for polluting forms of energy
- Don't present CCUS as an alternative to other approaches – all tools are needed and some work better in specific contexts
- Consistent political support is vital, spanning a sequence of governments
- Prove the [value](#) of CCUS hubs. For example, NZT Power employed independent consultants to analyse the value of the project to the country's electrical power system

Keep communicating

- Maintain good communication between government and industry, explaining the different processes involved in business and the state. Forums such as the CCUS Advisory Group in the UK can help play this role
- Give decision makers the relevant information – not too much information
- As policy direction is often evolving in parallel with hub projects, industry needs to be consulted on policy development
- To help state and industry understand each other, it can be useful to have an agency in the middle, such as Gassnova in Norway, or a specialist CCS agency, such as the CCSA in the UK

READ MORE

- [Designing effective policies for CCUS hubs](#)
- [Developing effective regulations for CCUS hubs](#)



WHAT QUESTIONS SHOULD POLICYMAKERS ASK THEMSELVES WHEN DEVELOPING POLICIES AND REGULATIONS FOR CCUS HUBS?

Objectives

- What are our objectives? For example:
- reduce national emissions, to meet or beat NDCs
- preserve industrial activity and jobs
- stimulate a domestic CCUS industry, including equipment manufacturers and service companies
- catalyse global CCUS investment at scale
- How do our CCUS-specific objectives align with our climate targets and industrial strategy?
- What policies can reflect our objectives?
- Who can we learn from: other jurisdictions, other CCUS projects, other industries?

Working together

- What are the objectives of other project stakeholders: industry, local and national government, politicians, local communities, trade unions and NGOs?
- What are industry's risks, and why do they want to get involved in CCUS?
- How can we build and retain trust between state and industry during the process of setting up a hub?
- How do we make hubs sustainable so that the transport & storage service provider can expand as demand grows?
- What are the formal project development processes used in industry, and how can they work alongside the different processes of the state?
- How do we allocate risk and reward when expectations regarding return on investment vary?
- How do we understand the risk profile of different emitters?
- Which issues need compromises?
- How do we retain political and public support?

Policy design

- What market failures do we need to address?
- What are the key risks that government has to take on?
- How can we incentivize cost reductions?
- How can we incentivize scaling, for example incentivise sharing of project lessons?
- Where we are providing subsidies, what return can we allow commercial participants and how do we match it to risk and requirements for additional investment?
- Are commercial models clear for both the emitter and transport and storage side?
- How long should support last? What are the conditions to scale down and stop funding?
- What types of support are needed at different stages, such as concept definition, FEED, execution, operation?
- How do we create a robust policy mechanism, insulated from changes in government?
- Are we looking to work with other countries/ states, and what are the policy implications?
- Have we addressed global industrial competitiveness, for example through carbon border mechanisms?

Legal framework and regulations

- Do we have an appropriate legal and regulatory framework for CCS?
- Can CCUS be regulated under or adapted from current regulations for oil and gas?
- What is the reporting landscape for a CCUS project? What permits do they need and from whom?
- How do our CCS policies and regulations work together?
- Which other government departments should we be working with?
- Are there any international or regional legal obligations we need to consider, for example the 1996 London Protocol on export of carbon dioxide?