

# Regulating for a North Sea transition: challenges and opportunities

Westminster Energy Forum

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### **NSTA** – What we do

North Sea Transition Authority

- NSTA regulates and influences the oil and gas, offshore hydrogen, and carbon storage industries
- We drive the North Sea's transition to realise the significant potential of the UKCS as a critical energy and carbon abatement resource
- · We hold industry to account on halving upstream emissions by 2030

Infrastructure reuse Skills, supply chain **Accelerating the energy transition** 

Integration Carbon storage and hydrogen Co-location and spatial Digital and data Cost-effective decommissioning

**Energy production & security** 

Economic recovery of O&G Storage: Natural gas and H<sub>2</sub> Capital

Licence to operate

**Emissions reduction** 

Clean power generation Flaring and venting Efficiencies Technology

# North Sea transition – UK's growth opportunity



## **Industrial potential**

Infrastructure

**Natural resources** 

£170bn expenditure to 2030

£85bn £7bn Oil and gas<sup>1</sup> CCS<sup>2</sup>

**£76bn £4bn** Offshore wind² Hydrogen²



100+
pipelines with
repurposing
potential



**78GT** of CO<sub>2</sub> storage potential<sup>4</sup>



200,000+ Good, skilled jobs<sup>2</sup>



250+ subsea installations



~3.75bn barrels of oil and gas<sup>1</sup>



Existing world
class energy
supply chain from
oil and gas sector

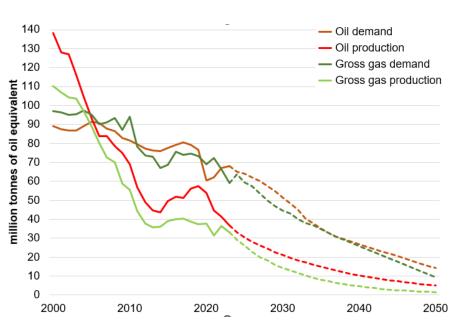




**50GW** fixed and floating offshore wind<sup>3</sup>

#### Domestic production will continue to be important, but industry needs to play its part in meeting UK Net Zero targets

#### **Domestic Production vs. Demand Forecasts**



All sectors need to reduce emissions to help the UK achieve net-zero by 2050





GHG emissions from upstream oil and gas activity accounted for **3%** of UK's total GHG emissions in 2022<sup>†</sup>

#### NSTA acknowledges wider environment, including policy and fiscal developments

#### Current government consultation

 assessing effects of scope 3 emissions from offshore oil and gas projects – closes 8 January 2025

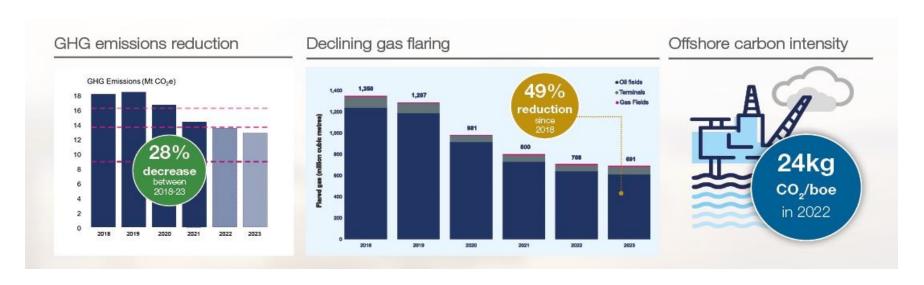
#### Forthcoming government consultations

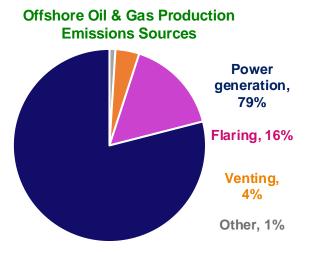
- implementation of manifesto position on licensing
- explore how oil and gas tax regime will respond to price shocks once EPL ends in 2030

# What is NSTA doing about emissions?



NSTA is overseeing emissions reduction progress and taking a robust approach, utilising OGA Plan. More progress is needed.





#### **OGA Emissions Reduction Plan - Overview**

#### Flaring and venting

Zero routine flaring and venting for all developments by 2030. Flaring currently accounts for 1/6 GHG emissions from production

#### Inventory

More focus on planned decom, scrutiny of high emissions intensity assets. Closure of low-producing, carbon-intensive installations may allow cleaner production

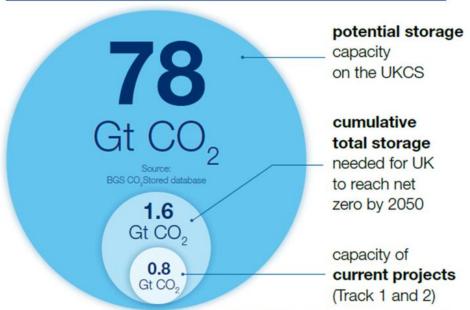
#### **Electrification and low carbon power**

Power generation is largest contributor to GHG emissions from o/g production. Electrification required, with other low carbon power options also considered

#### Investment and efficiency

Investment in GHG emissions reduction should be made by industry

#### **UKCS** potential



The graphic shown is for indicative purposes only.

- 20-30 Mtpa CO<sub>2</sub> by 2030 (Government ambition)
  - **75-175** Mtpa CO<sub>2</sub> by 2050 (CCC estimate)
- 100 estimated number of appraised carbon stores needed to reach net zero

#### **Progress**

As of December 2024, the NSTA

- is ready to take decisions on the UK's **first two carbon storage permits** for projects in government's Track 1 cluster programme
- has issued the UK's first extended well consent for a carbon dioxide injection test
- is stewarding <u>27 carbon storage licences</u> towards storage permit application and carbon dioxide injection on UKCS
- has run the UK's first ever carbon storage licensing round, awarding 21 licences

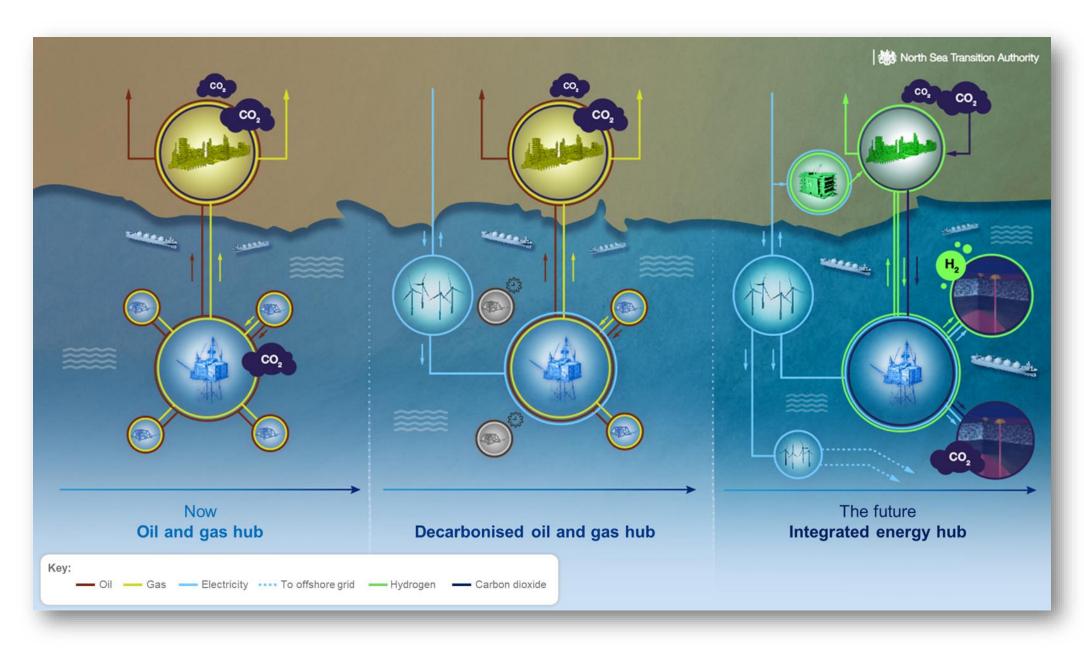








# **Hub evolution?**





# Thank you