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**ISES**

2022 Empowering Energy Transition

5<sup>th</sup> ISES 2022

**EMPOWERING  
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# Deep-dive Workshop 10

## Views and Insight On UK Regime for CCS Initial And Current Policy Setting

## Initial Policy Settings

### NOVEMBER 18, 2020 – THE TEN POINT PLAN FOR THE GREEN INDUSTRIAL REVOLUTION

#### Point 8 of the Ten Point Plan:

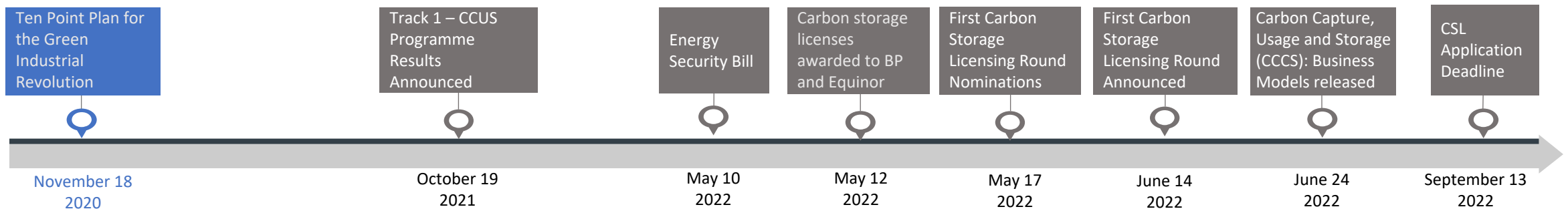
- Investing in carbon capture, usage and storage: UK "ambition is to capture 10 million metric tonnes of CO2 a year by 2030 ... to invest £1 billion to support the establishment of 4 industrial clusters ... North East, the Humber, North West, Scotland and Wales".

#### Of the 4 industrial clusters:

- 2 to be established by the mid-2020s, 4 to be established by 2030, capturing up to 10 million metric tonnes by 2030.

#### £1 billion:

- to be sourced from CCS Infrastructure Fund (CIF), providing industry with the certainty required to deploy CCUS at pace and at scale.



## Current Policy Settings

### MAY 10, 2022 – THE QUEEN’S SPEECH OUTLINED THE ENERGY SECURITY BILL

#### Energy Security Bill

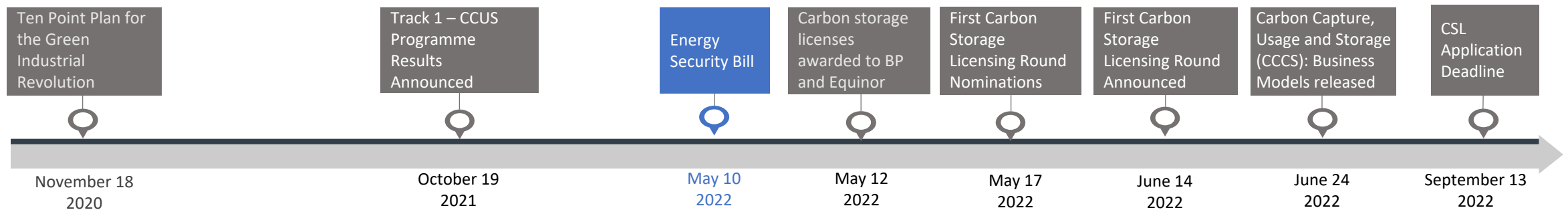
- provides British Energy Security Strategy and means to implement Ten Point Plan for Green Industrial Revolution.

#### Energy Security Bill

- stated to focus on 10 key elements, including the introduction of "state-of-the-art" business models for carbon capture and storage.

#### "State-of-the-art" business models:

- stated to be intended to provide a secure return for those investing in CCUS projects for a number of years.



## The First 2 Industrial Cluster

**OCTOBER 19, 2021 - THE UK GOVERNMENT ANNOUNCED THE RESULTS OF TRACK 1 – CCUS PROGRAMME RUN TO IDENTIFY THE FIRST 2 INDUSTRIAL CLUSTERS**

**Two clusters, one reserve:**

- The **East Coast Cluster** (comprising Zero Carbon Humber and Net-Zero Teesside) and **HyNet North West**, each of which had a participating corporation with a carbon storage licence (**Endurance** and **Liverpool Bay**), and the **Scottish Cluster** was granted “reserve status”, again having a carbon storage licence (**Acorn**).

### Carbon Storage Licences (CSLs)

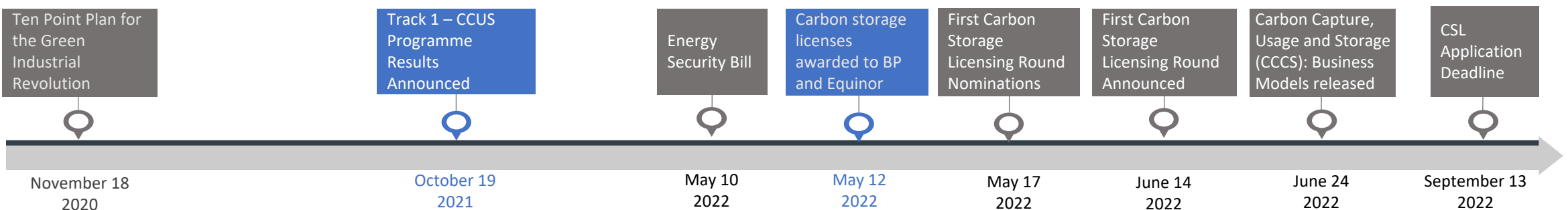
- The **Energy Act 2008** (and amended in 2016) has provided for the issue of CSLs since October 2010. With CSLs granted on an ad-hoc basis. It is estimated that the UK has storage capacity of up to 70 billion metric tonnes of CO<sub>2</sub>, and as such up to a 100 CSLs may be granted.

### May 12 2022 – BP and Equinor each awarded a CSL

- The award will facilitate the development of the **East Coast Cluster**. Following the award of the CSLs to BP and Equinor, the North Sea Transition Authority (NSTA) has six CSLs under its stewardship, the others being Acorn, Endurance and Liverpool Bay, and Viking (held by a consortium shortlisted, but not successful in the Track 1 – CCUS Programme – V NetZero).

### Having a CSLs provides an advantage

- It is clear that having a CSL provides an advantage to consortiums seeking to be selected as the 3rd and 4th industrial cluster.



## NSTA Announces First Carbon Storage Licensing Round

**MAY 17, 2022: FIRST CARBON STORAGE LICENSING ROUND NOMINATIONS CLOSED**

**JUNE 14, 2022: FIRST CARBON STORAGE LICENSING ROUND ANNOUNCED**

### May 17, 2022:

Nominations process closed for sites to be included in the First Carbon Storage Licensing Round – the **NSTA** sought input from the market as to which sites were most sought after.

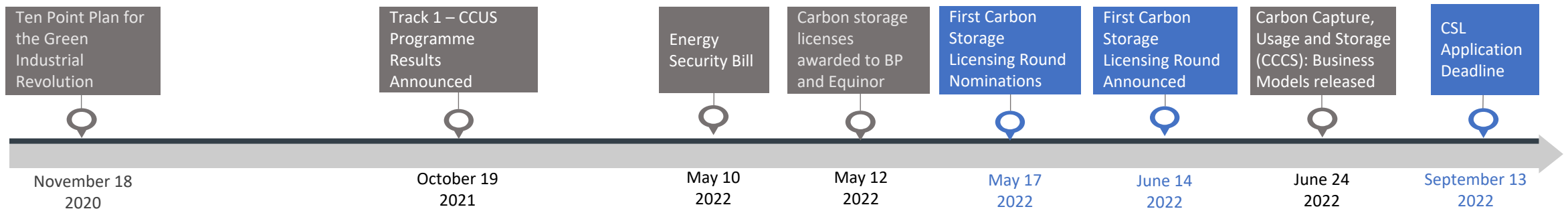
### June 14, 2022:

Informed by the nomination process, **NSTA** announced First Carbon Storage Licensing Round, with **13 sites available** off the coasts of Aberdeen, Liverpool, Lincolnshire and Teesside.

**The NSTA stated:** The First Carbon Storage Licensing Round is in "**response unprecedented levels of interest from companies eager to enter the market**". Also the **NSTA** has noted the findings of the International Panel on Climate Change Working Group III report on Mitigation of Climate Change (link to Edition [38](#) of Low Carbon Pulse), outlining the imperative of carbon dioxide removal now, so as to achieve Paris Agreement outcomes.

### September 13, 2022:

Applications for CSL to be received by the **NSTA**.



## Application and Form of CSLs

[NOTE: THIS SLIDE IS INTENDED TO ANSWER THE SPECIFIC QUESTIONS RAISED]

### **CSL is not all that is needed**

In addition to a CSL to be able to store CO<sub>2</sub> it is necessary to get:

- an agreement for lease and a lease from The Crown Estate (UK other than Scotland) or The Crown Estate Scotland,
- approvals in respect of environmental impact, based on the activities undertaken, and
- a contract with a Transport and Storage Company (T&S Co), with each T&S Co to be licensed (see next slide).

The Crown Estate is able to grant rights to developers for pipelines and storage within the UK (other than Scotland). The right granted can include injection wells, platforms and manifolds, storage sites and other off-shore facilities to allow development of a CCUS project. The Crown Estate will consider applications from developers associated with a full chain CCUS project.

Applicants will need to be able to provide evidence of commitment and capacity to receive CO<sub>2</sub> for storage, and to have an application for a CSL accepted for consideration by the NSTA.

The rights granted by The Crown Estate will be conditional on the NSTA granting a CSL. The Crown Estate Scotland is similar.

The terms and conditions normally set out in a CSL are located at the [NSTA website](#), being terms and conditions on which the NSTA is likely to award a CSL, noting that the actual terms and conditions will reflect that which the NSTA considers appropriate in the specific circumstances, and otherwise in accordance with the Storage of Carbon Dioxide Regulations 2010. As such, while terms and conditions may be expected to be similar, they may not be identical.

### **The CSL is for each phase of the CO<sub>2</sub> storage project**

The CSL will cover the Appraisal Phase, Operational Phase and Post-Closure Period, and as such the term of the CSL will reflect the term of the CO<sub>2</sub> storage project. In determining whether to award a CSL the NSTA must consider whether the applicant is able to appraise, analyse and plan the development of the area in respect of which a CSL is sought, and the capacity of the applicant to undertake storage, and, in due course, to be able to submit a credible application for a Storage Permit. The NSTA will consult with the UK Government for these purposes.

The terms and conditions will reflect the CO<sub>2</sub> to be stored. It should be expected that the duration of the lease from The Crown Estate and The Crown Estate Scotland will match. [Note: This is a developing area.]

## Business Models and T&S Cos

**JUNE 24 2022 – THE UK GOVERNMENT RELEASED THE CARBON CAPTURE, USAGE AND STORAGE (CCCS): BUSINESS MODELS, TOGETHER WITH AN EXPLANATORY NOTE**

**Two basic business models – point of capture and transportation and storage:**

- **Point of capture** – the business model is to contract with the emitter of CO2 based on the long established contract for differences (CfD). A CfD provides the emitter with gap funding to cover the higher costs of CCUS compared to no CCUS.
- **Transportation and Storage** – the business model is to provide a licensing regime for T&S Cos, and the basis upon which they will contract with emitters to transport and to store permanently the CO2 captured by the emitter.

**June 24 2022** – the UK Government released the [Carbon Capture, usage and storage \(CCCS\): business models](#), together with an [explanatory note](#).

Under the regime to license CO2 transportation and storage, it will be unlawful to transport and to store CO2 without a licence (those licensed being **T&SCos**). To obtain a licence a **T&SCo** will have to develop a **CCS Network Code** under which it will contract for access and use by users. The concept of a network code is well-established in the UK (the author having worked on the TransCo Network Code back in the day), providing for true open-access for users.

