



# **HIL update on HAR process**

## **N-Gen Energy Solutions Ltd**

**David Gill – Business Development Director**



## Ownership



CKI Holdings  
(International)

CK William UK  
Holdings Limited



N-Gen Energy  
Solutions Ltd  
(UK)

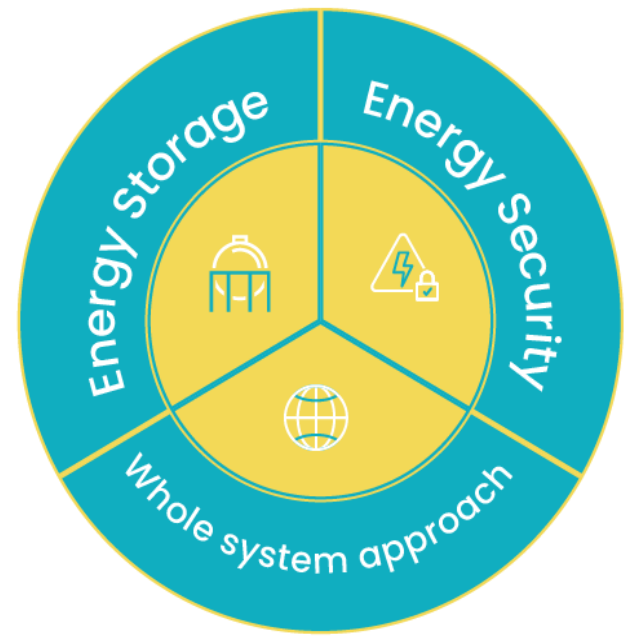
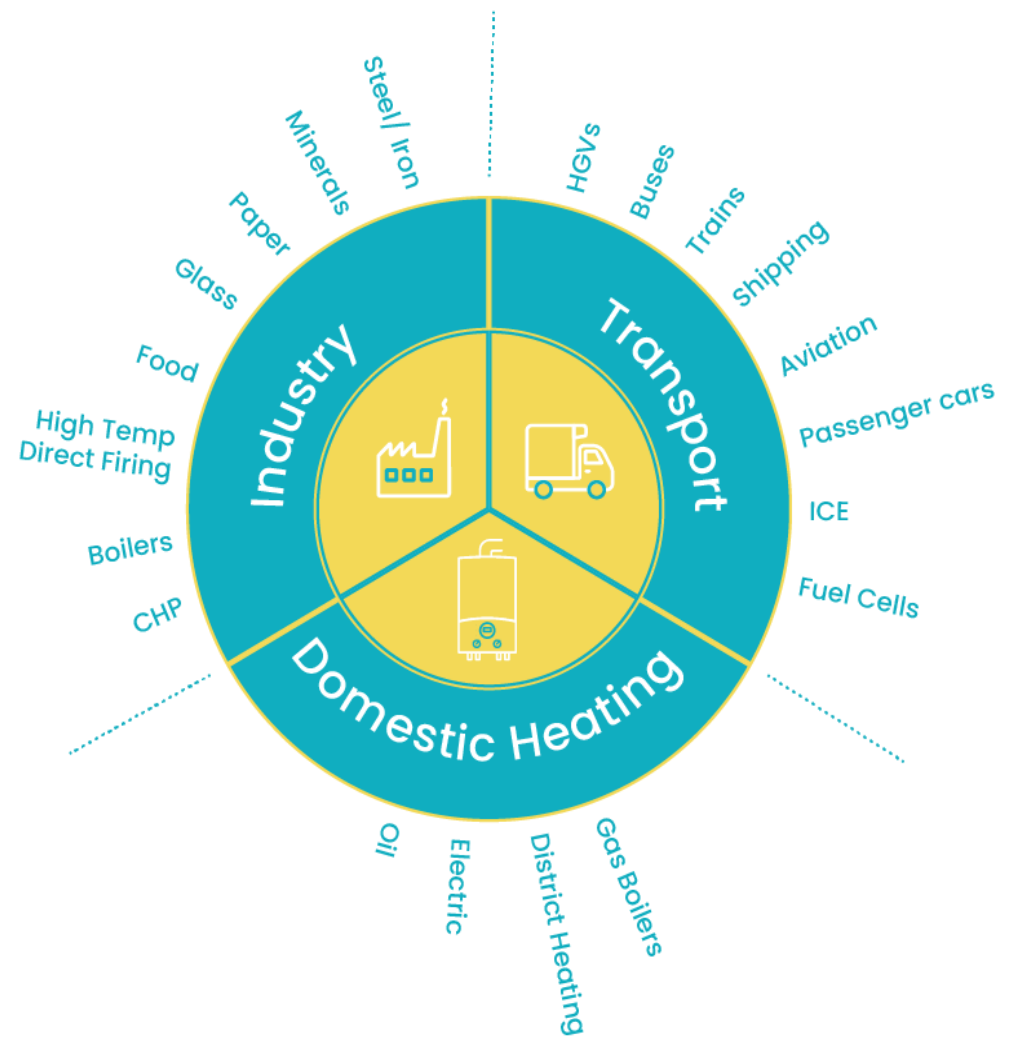
# Our unique investment outlook and expertise

1. Long-term infrastructure investor with diverse energy portfolio, strong credit rating and capital to deploy
2. Global owner and operator of energy assets
3. Strategic solutions to fit your need
4. Experience of designing and optimising energy
5. Meaningful stakeholder engagement

# The case for hydrogen

**DESNZ – c250-460 TWh of Hydrogen needed by 2050. That's 20-35% of UK energy consumption**

**Use 'abated' electricity as part of an integrated energy system to produce Hydrogen. Key to energy independence and the net zero transition**



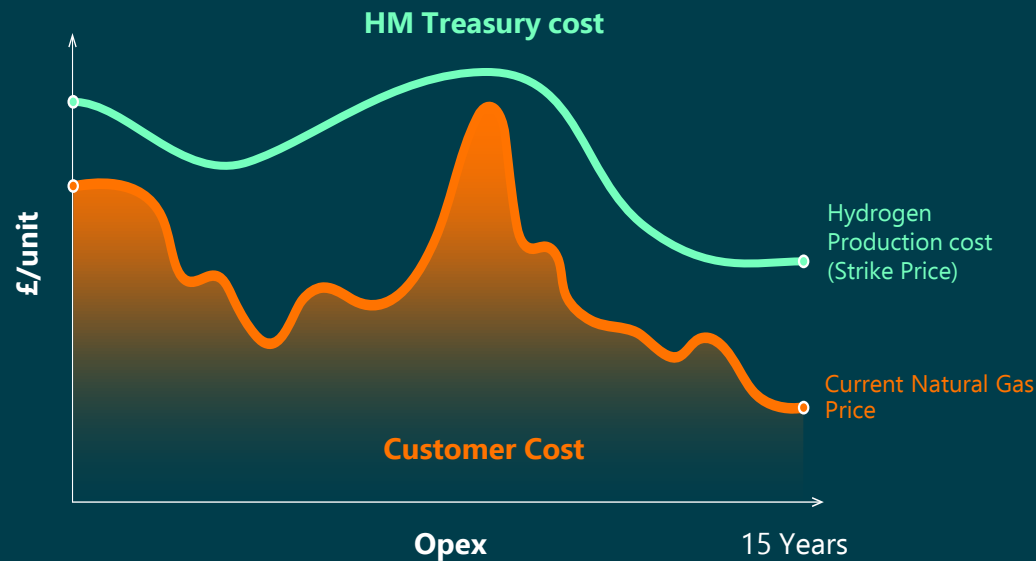
**Hydrogen will play a key role in the UK's future energy mix**



# Government ambition to have 10GW of Green hydrogen production capacity by 2030

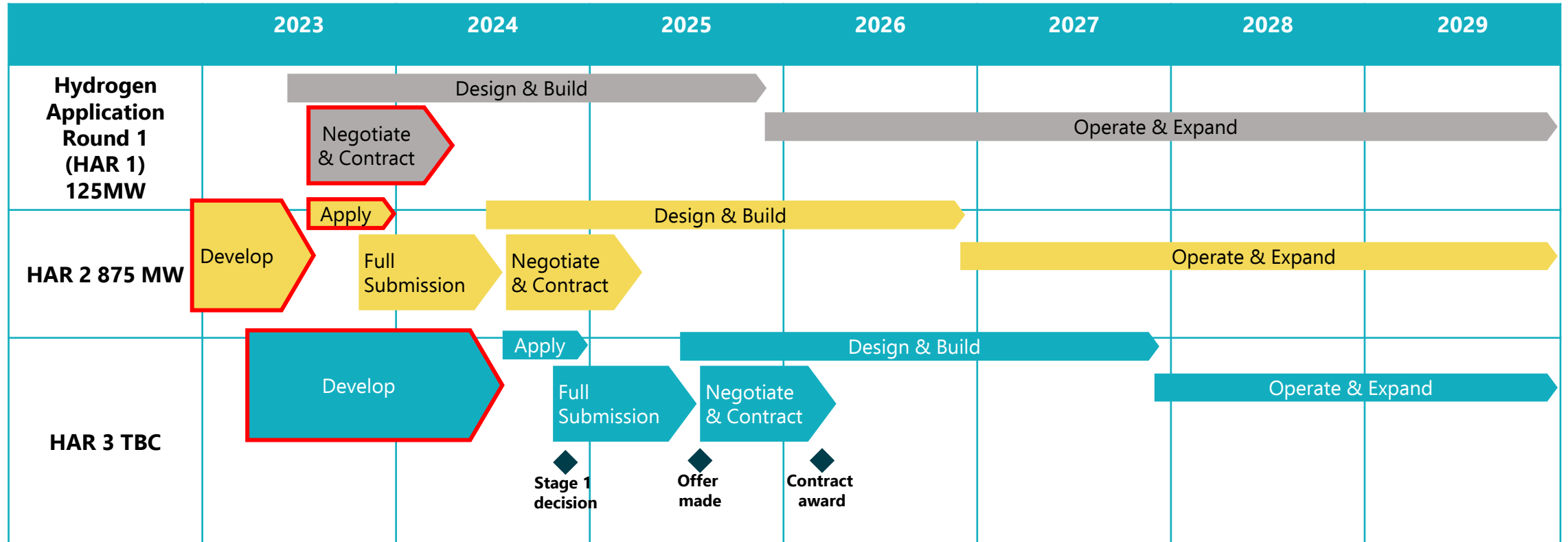
## Green hydrogen cost is matched to natural gas prices

### Hydrogen Production Business Model



- Subsidy available for production schemes over 5MW
- Criteria – good certainty of offtake, land, planning application, infrastructure and customers
- 15-year contract with the government
- 15-year contract with Offtaker

# Hydrogen Allocation Round (HAR) timescales



# Our 35MW green hydrogen production facility in Bradford



- **The biggest scheme to receive funding in the government's HAR 1 funding**
- **Using electrolysis, to produce circa 12.5 tonnes of low hydrogen daily**
- **Enough hydrogen to fuel 800 buses**
- **On-site hydrogen storage**
- **Delivery of hydrogen to operators of fleet and large industrial users of gas in West Yorkshire**
- **Site Commissioning and production commences 2027**



# East Coast Hydrogen



**Connect hydrogen supply with hydrogen demand** across multiple customers commencing with industrials fuel switching to hydrogen



**Transport hydrogen** through repurposed and new build pipelines to industrial users first



**Build resilience** with the interconnectivity of the Humber and Teesside industrial clusters and storage facilities across the East Coast Hydrogen region

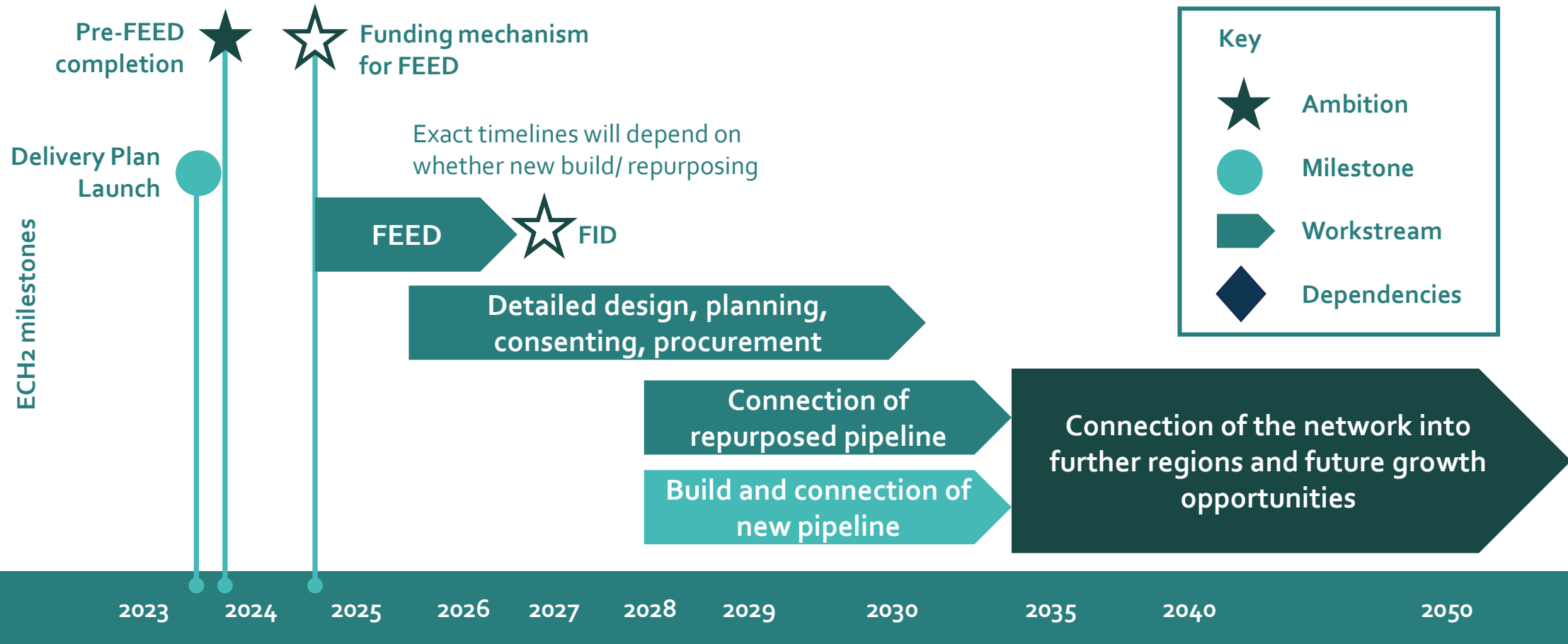


**Support efficient market growth** by balancing supply and demand and enabling connections across the East Coast Hydrogen region











Note: Network configuration includes new build and repurposed pipelines and is indicative and subject to change

# The next step for all networks is FEED; the target date for re-purposed transmission lines is 2028 with first new build phases live around 2030







-  National Gas Feeder 7
-  NGN ECH<sub>2</sub> repurposed pipelines
-  NGN ECH<sub>2</sub> new pipelines
-  Private lines
-  Indicative Humber National Gas pipeline
-  Indicative 3<sup>rd</sup> party pipelines
-  Green hydrogen production projects
-  Blue hydrogen production projects

# So – process is going well but...

## ***Projects:***

- ***Understand if offtaker is an early mover***
- ***Engage with stakeholders early in project***
- ***Be clear with offtaker on who does what –Inc. 15 year offtake***
- ***Understand and secure key elements early -grid connection early***
- ***Planning early***
- ***Have a weather eye on ECH***

## ***What we can all do:***

- ***Coalesce on important issues***
  - ***Grid capacity – NESO National important schemes***
  - ***How do we make sure market is investible – reduce investor risk ?***
    - ***More than one offtaker?***
    - ***Blending?***

***Government has doubled down on these critical infrastructure projects so let's help DESNZ achieve the goal - Policy***

