

# Stakeholder Event

Doncaster Hydrogen Report



**Market Infra**



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Doncaster  
Council



# Introduction: Market Infra Overview

We are a specialist infrastructure consultancy business, supporting and delivering major projects across the UK.

We deliver Work Winning and Project Management solutions.

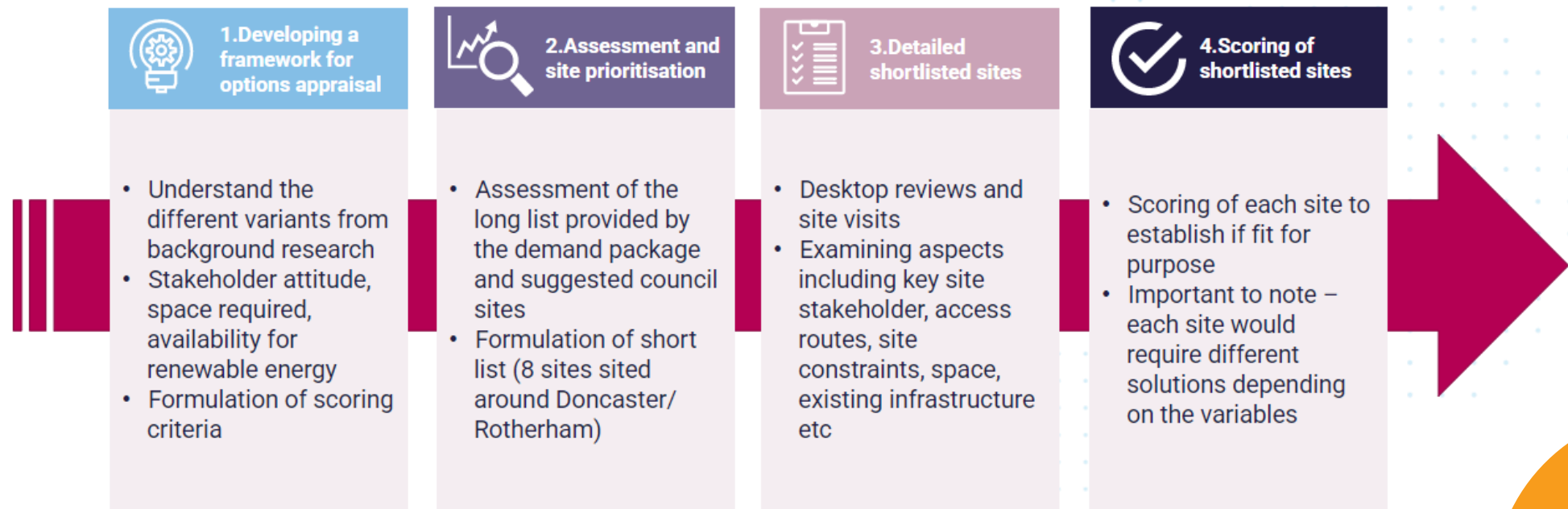
We integrate fully with our clients and become part of their core team, providing them with committed and ongoing support.

We have the highest standards and add value through our specialist knowledge.

We have a network of specialist associates that we can draw on for skills such commercial management, estimating, and planning.

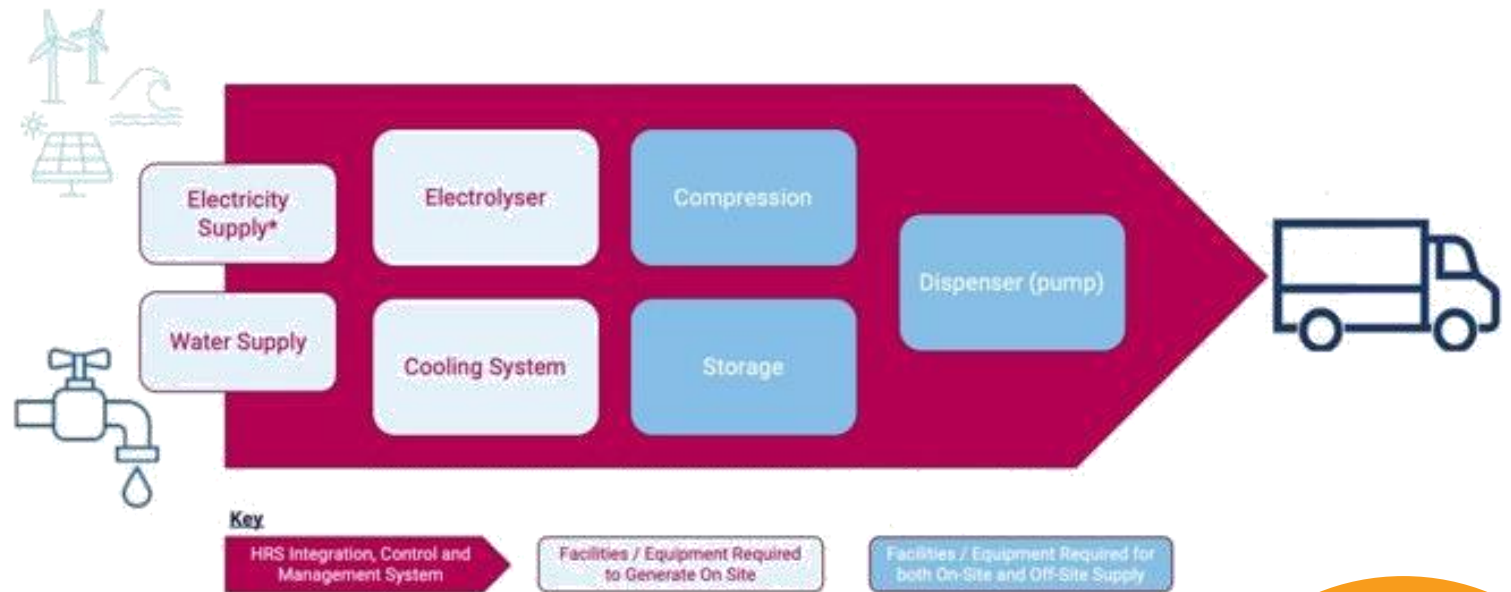


# Finding a Site: Process for Site Assessment



# Setting up a Refuelling Station: The Options

-  Sessions with key hydrogen suppliers
-  Establish planning application process
-  Research potential site layouts and establishment
-  Standards and codes of practice
-  Hydrogen generation options
-  Potential operating models



# Setting up a Refuelling Station: Establishing a Site

Activity	Duration	Year 1												Year 2												Year 3											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Site Commercial Model Established and Contracts Signed	Milestone																																				
Funding Secured	Milestone																																				
Design	6 months																																				
Planning Approval - Pre-Application	1 month																																				
Planning Approval - Main Application	3 months																																				
Place Equipment Orders	Milestone																																				
Manufacturing Lead Time -																																					
Manufacturing Lead Time -																																					
Compression, Storage & Dispenser	15 months																																				
Manufacturing Lead Time - Other																																					
Site Clearance Works	1 month																																				
Security Fencing and Site Protection	1 month																																				
DNO Connection	1 month																																				
Install Equipment On Site	1 month																																				
Test and Commission	2 months																																				
Site Operational	Milestone																																				







# Finding a Site: The Long List

Name	Post code	Comment	RAG Status
JMS of Doncaster	DN6 7BA	<ul style="list-style-type: none"> <li>Brown field space available around the site.</li> <li>c. 2 miles of 'B road' through residential areas to the SRN, so only suitable for companies already in the area (rather than as a destination site for other companies)</li> <li>No companies in the area are likely to be 'early adopters' of hydrogen</li> </ul>	Yellow
Fenwick Haulage	DN6 7DU	<ul style="list-style-type: none"> <li>Brown field space available around the site.</li> <li>c. 2 miles of 'B road' through residential areas to the SRN, so only suitable for companies already in the area (rather than as a destination site for other companies)</li> <li>No companies in the area are likely to be 'early adopters' of hydrogen</li> </ul>	Yellow
EMMS Transport & Training	DN12 1BS	<ul style="list-style-type: none"> <li>Brown field space available around the site.</li> <li>c. 1 miles of 'B road' through residential areas to the SRN, so only suitable for companies already in the area (rather than as a destination site for other companies)</li> <li>No other HGV companies in the area likely to use a station in this area</li> </ul>	Red
McGregor Logistics	DN4 9LS	<ul style="list-style-type: none"> <li>Fully developed site</li> <li>Limited customer base in the area for a station</li> </ul>	Red
Anthony Robson	DN6 7AW	<ul style="list-style-type: none"> <li>Brownfield space seems available around the site</li> <li>Limited customer base in the area for a station</li> </ul>	Red
DHL Supply Chain Base	DN11 9HE	<ul style="list-style-type: none"> <li>Fully developed site (surrounded by greenfield).</li> <li>Limited customer base in the area for a station</li> </ul>	Red
Teesdale Transport	DN7 6BB	<ul style="list-style-type: none"> <li>Small depot with limited access and space</li> <li>Surrounded by greenfield</li> <li>Limited customer base in the area for a station</li> </ul>	Red
iPort	DN11 0BQ	<ul style="list-style-type: none"> <li>Space on site for a station</li> <li>Excellent potential customer base on site (e.g., Amazon and Maritime)</li> <li>Excellent access to the SRN</li> </ul>	Green

Gateway 4	DN3 3FB	<ul style="list-style-type: none"> <li>Space on site for a station</li> <li>Excellent potential customer base on site (e.g., Ikea and Next)</li> <li>Excellent access to the SRN</li> </ul>	Green
Thorne North	DN8 4HT	<ul style="list-style-type: none"> <li>A new site (at planning stage)</li> <li>Excellent access to the SRN</li> <li>Once constructed, this site is likely to have an excellent potential customer base</li> </ul>	Green
Unity	DN8 5GS	<ul style="list-style-type: none"> <li>A new site (currently under construction)</li> <li>Excellent access to the SRN</li> <li>Once complete, this site is likely to have an excellent potential customer base</li> </ul>	Green
DSA Gateway East (Doncaster Sheffield Airport)		<ul style="list-style-type: none"> <li>Ample space for a station</li> <li>Limited scope for HGVs to travel to the site to refuel (due to congestion at the M18 J3 roundabout). However, anticipated to be sufficient demand from the 'ground fleet' permanently based at the site</li> </ul>	Green
Redhouse Interchange	DN6 7FB	<ul style="list-style-type: none"> <li>Limited 'new' space on site for a station. It would require an occupier to convert existing space</li> <li>Excellent potential customer base on site (e.g., B&amp;Q)</li> <li>Excellent access to the SRN</li> </ul>	Green
Symmetry Park	S81 8HH	<ul style="list-style-type: none"> <li>A new site (at planning stage)</li> <li>Excellent access to the SRN</li> <li>Once constructed, this site is likely to have an excellent potential customer base</li> </ul>	Green
Polypipe	DN12 1ES	<ul style="list-style-type: none"> <li>Fully developed site so would require an existing space to be converted</li> <li>Strong potential customer on site</li> </ul>	Yellow
Doncaster First	DN2 6DZ	<ul style="list-style-type: none"> <li>Brown field space seems to be available around the site.</li> <li>c. 2 miles of 'B road' through residential areas to the SRN, so probably only suitable for companies already in the area (rather than as a destination site for other companies)</li> <li>Strong potential customer on site</li> </ul>	Yellow
Micklebring	S66 7RN	<ul style="list-style-type: none"> <li>Space on site for a station near The Truckstop</li> <li>Source of renewable energy - planned solar farm</li> <li>Excellent potential customer base - Great Bear, Clipper, Pawson</li> <li>Excellent access to the SRN</li> </ul>	Green

- 17 Sites Across Doncaster Assessed as 'Red, Amber or Green'
- 8 'Green' sites taken forward for additional investigation
- 4 'Amber' sites that could be investigated in a late of HRS roll out
- Engagement with council to identify council owned land





# Finding a Site: The Short List



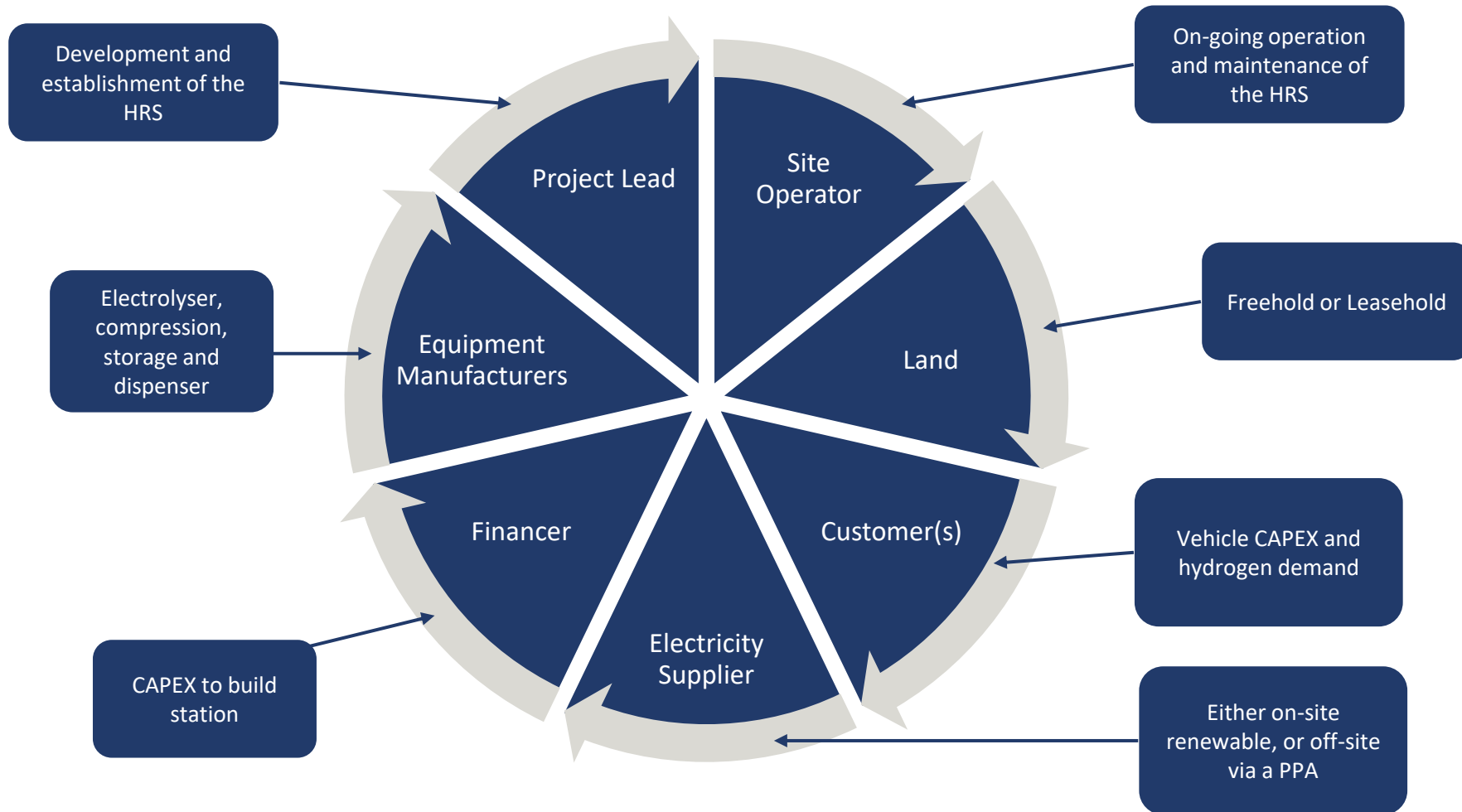
## All sites:

- Are viable
- Are close to the SRN
- Have space available and potential for scalability
- Have potential demand
- Have existing infrastructure

There is Council owned land at some of these locations, which could potentially be used.



# Stakeholder Input



# Finding the Best Option for Doncaster: Developing an Outline Business Case

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## **CAPEX**

C. £5m investment for  
a 2MW site

## **Timescales**

24 Months

## **Additional Revenue Streams**

- Heat
- Hot Water
- Oxygen
- RFTOs
- Renewable Energy Subsidies

## **Production of Hydrogen**

£5.50 per kg, to be  
competitive against  
diesel

## **Customer Demand**

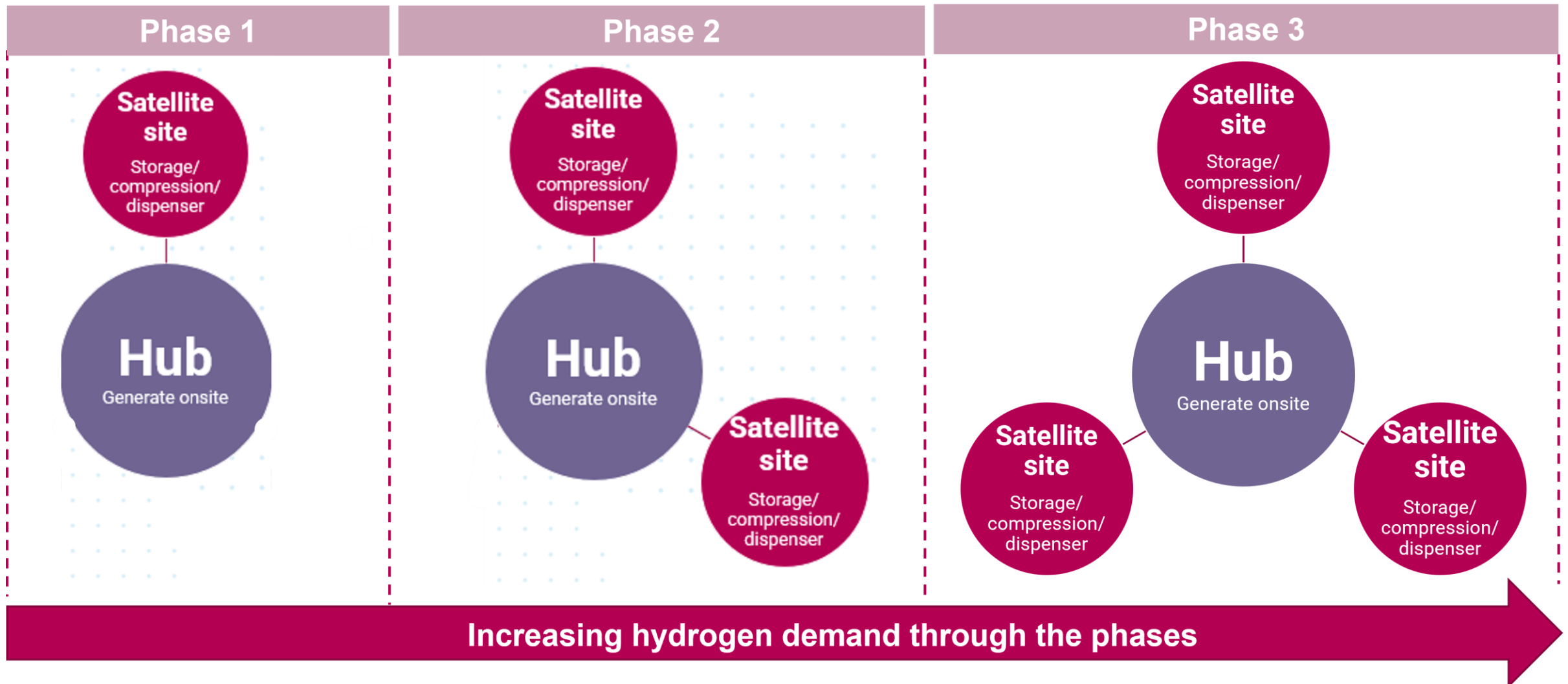
Hydrogen vehicle  
CAPEX and OPEX

## **Future Proofing**

A Modular Design



# Finding the Best Option for Doncaster: A Hub and Spoke Model?





# Finding the Best Option for Doncaster: A Hub and Spoke Model?







# Thank you for listening

Any questions?