

# ORKNEY HARBOURS MASTERPLAN

# Phase 1

Orkney Harbour Authority  
July 2020

KIRKWALL  
HATSTON  
SCAPA PIER  
SCAPAFLOW  
STROMNESS



# Planning For the Future — Investing in Marine Infrastructure

Orkney Harbours is one of the most diverse and successful council-run ports in the UK; it is the preferred location for Ship to Ship (STS) transfers at anchor within Europe's largest natural harbour; and is known as the cruise capital of the UK.

The marine environment plays a fundamental role in Orkney, supporting many key sectors across the Orkney economy. Orkney Harbour Authority believes that now is the time to investment in facilities and infrastructure so that it can meet the needs of changing markets, grow new business and safeguard Orkney's harbours as essential economic drivers and community assets for future generations.

Further diversification and growth in harbour activities will not only safeguard existing jobs at sea and ashore, but create many more and in doing so strengthen the viability and sustainability of the local community for the longer term, making Orkney an attractive place to live, work and do business.

## **The Orkney Harbours Masterplan Phase 1 is forward-looking and transformational**

The Orkney Harbours Masterplan Phase 1 provides a framework for the physical development and transformation of Orkney's harbours over a 20-year period and comprises harbour infrastructure enhancements at five locations on the Orkney Mainland. This is only Phase 1 – Phase 2 will consider infrastructure enhancements relating to smaller piers and harbours throughout the Orkney archipelago.



# Masterplan Proposals

5 Stromness

2 Hatston Pier

3 Kirkwall

4 Scapa Pier

1 Scapa Deep Water Quay

## 1 Scapa Deep Water Quay

New multi user deep water pier and quayside facility with laydown area

## 2 Hatston Pier

New pier and quayside infrastructure, ship lift, fuel facility and land for harbour operations

## 3 Kirkwall

New quayside infrastructure, marina expansion and waterfront development area

## 4 Scapa Pier

Pier extension into deeper water with addition of shoreside area

## 5 Stromness

Marina expansion and dedicated cruise tender pontoon

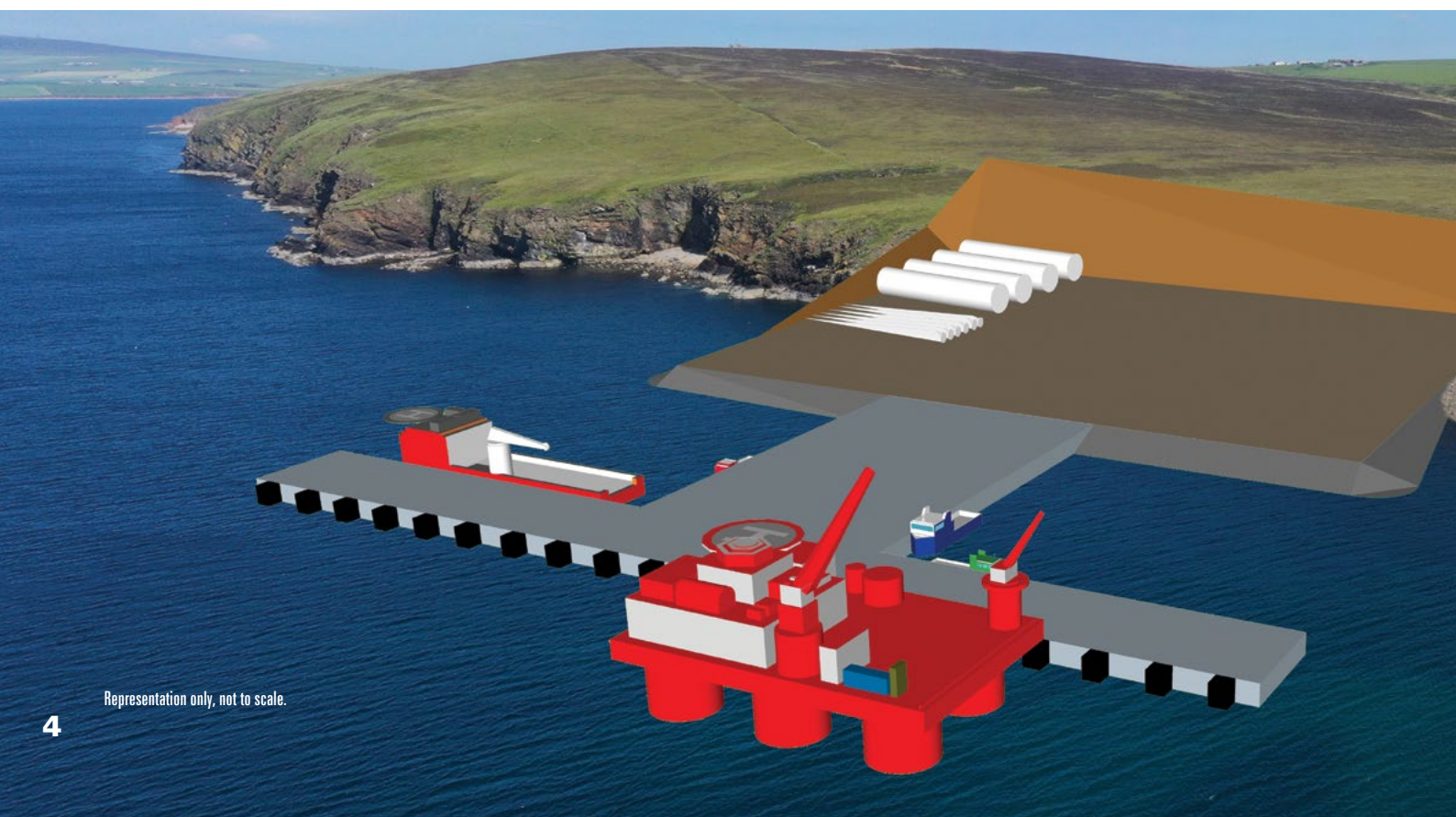


# Scapa Deep Water Quay

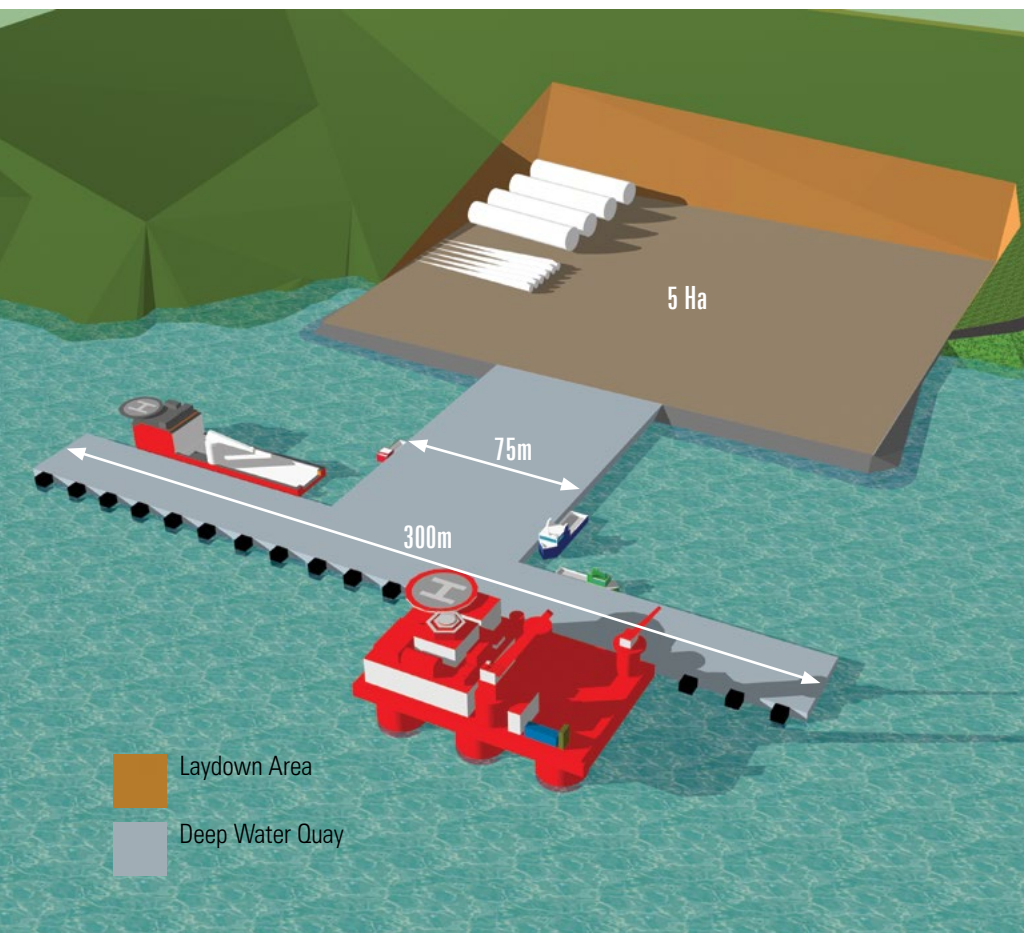
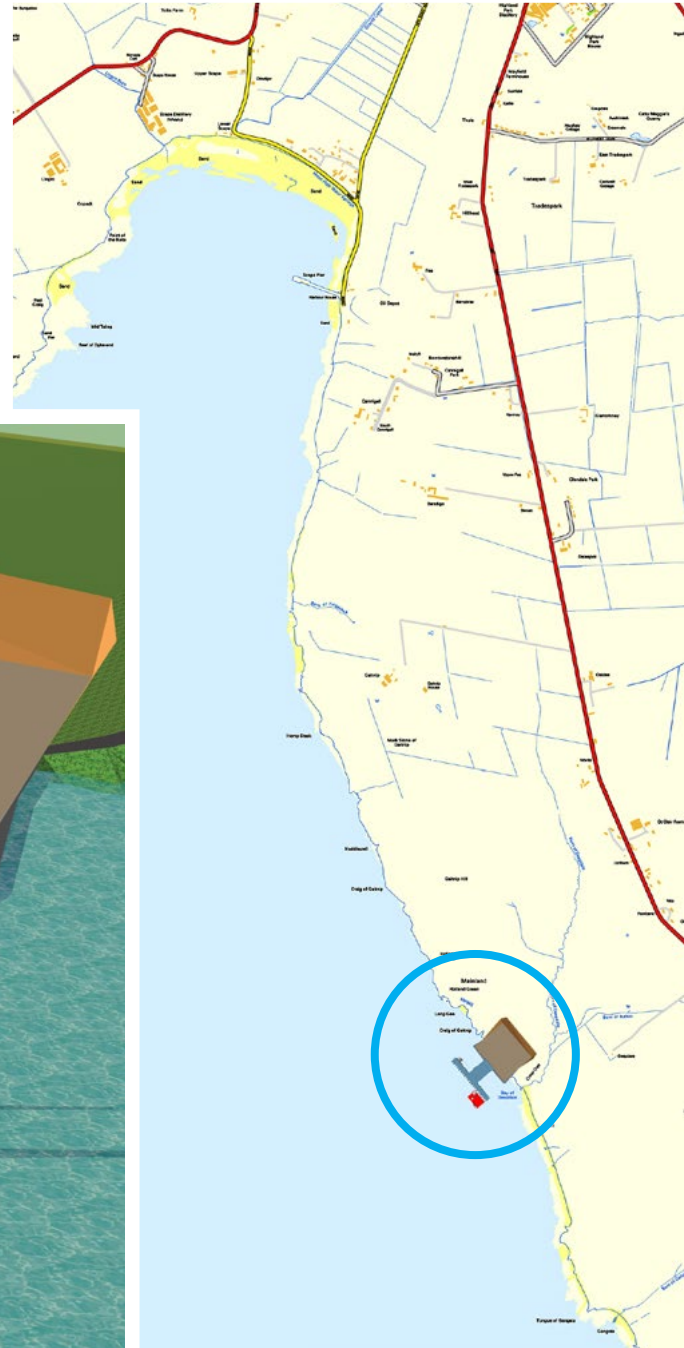
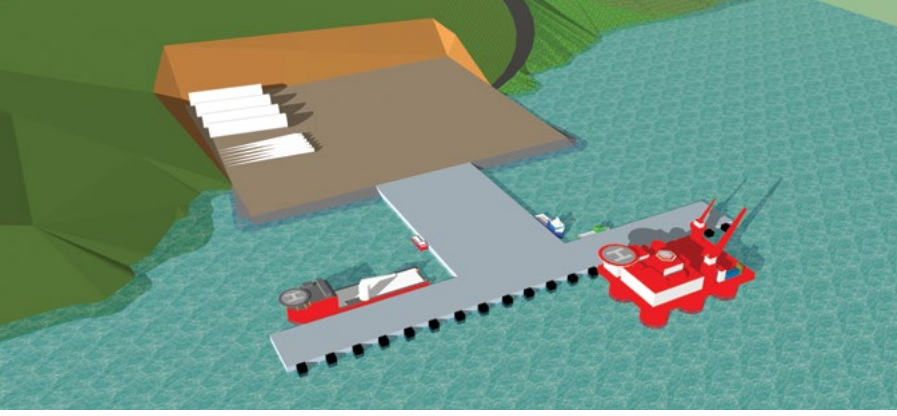
There are few harbours in Scotland that offer deep water quayside facilities. Scapa Deep Water Quay comprises a new quayside facility in Scapa Flow that can accommodate multiple industry activities that require both deep water berthing and large laydown areas. With more than 500m of new quay and a water depth of 20m below Chart Datum this facility will support specific activities in the energy sector, such as maintenance of structures and vessels alongside and the construction, operation and maintenance of offshore wind farm components. Scapa Deep Water Quay is also a potential location for the development of a Liquefied Natural Gas (LNG) storage and supply hub.

## MASTERPLAN PROPOSALS:

- Multi purpose quayside facility with a 300m outer quay and two 110m long inner berths
- Water depth of 20m below Chart Datum
- Minimum of 5 hectares of laydown area
- Dedicated road connection



Representation only, not to scale.



# Hatston Pier

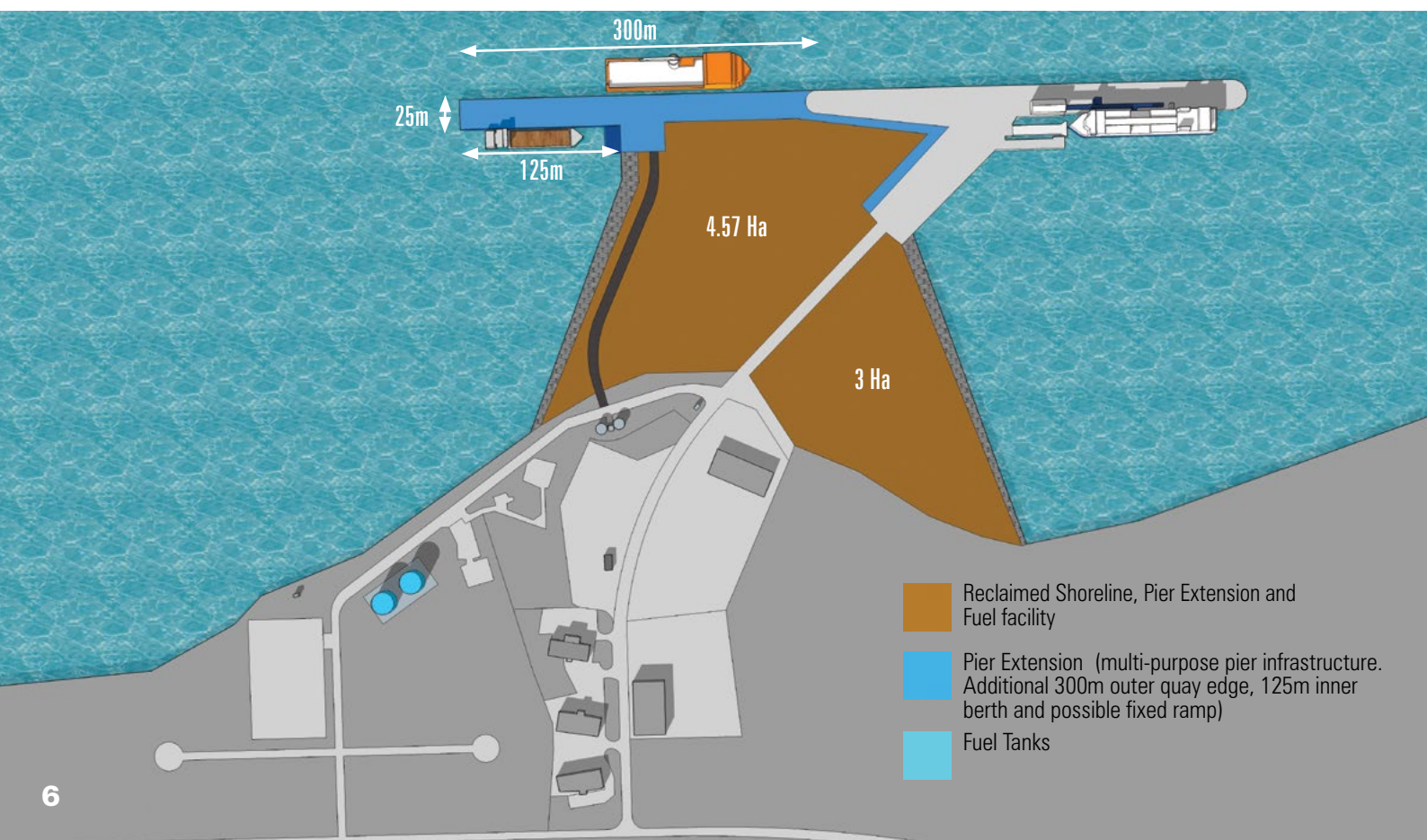
Hatston Pier comprises multi-purpose infrastructure that accommodates a range of operational activities and vessels including cruise liners, oil and gas supply vessels, the deployment and maintenance of renewable energy devices, ferries linking Orkney with Shetland and the Scottish mainland and cargo vessels.



There will be 400m of new berth at a water depth of 10m below Chart Datum and additional reclaimed land next to the existing estate that will create opportunities for equipment laydown, ship lift facility and fixed ramp.

## MASTERPLAN PROPOSALS:

- 300m extension to existing quay and 125m inner berth: water depth of 10m below Chart Datum
- More than 7 hectares of additional land available for operations, laydown, marshalling or storage – opportunity also to reconfigure existing operations landside
- Fuel supply and storage facility in close proximity to pier
- Opportunity to develop a range of facilities at the quayside and in close proximity to the pier

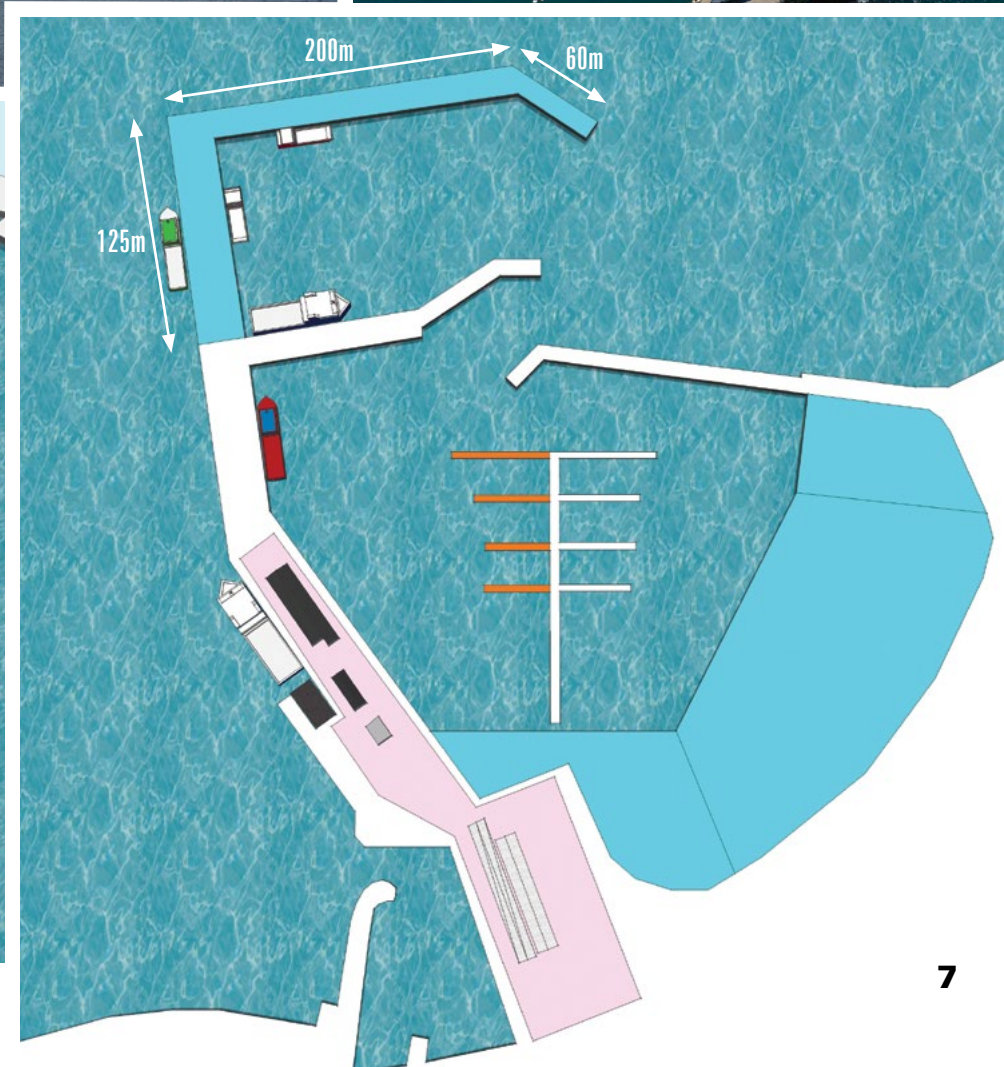


# Kirkwall Pier

Kirkwall Pier sits within the heart of Orkney's largest settlement and is the hub for the inter-isles ferry routes and is home to the largest marina in Orkney. It is also the key port for the inshore fishing fleet, the aquaculture sector and the marine supply chain in general with many commercial boats operating out of Kirkwall. Smaller cruise liners come alongside whilst larger vessels tender in passengers to a pontoon located in the basin close to the town centre.

## MASTERPLAN PROPOSALS:

- Additional 200m of multi-purpose quay constructed to the north of the existing pier with a depth of 6.5m below Chart Datum
- Marina expansion, with up to 95 additional berths
- Mixed use waterfront development area
- Improvements to quayside layout, facilities and traffic management



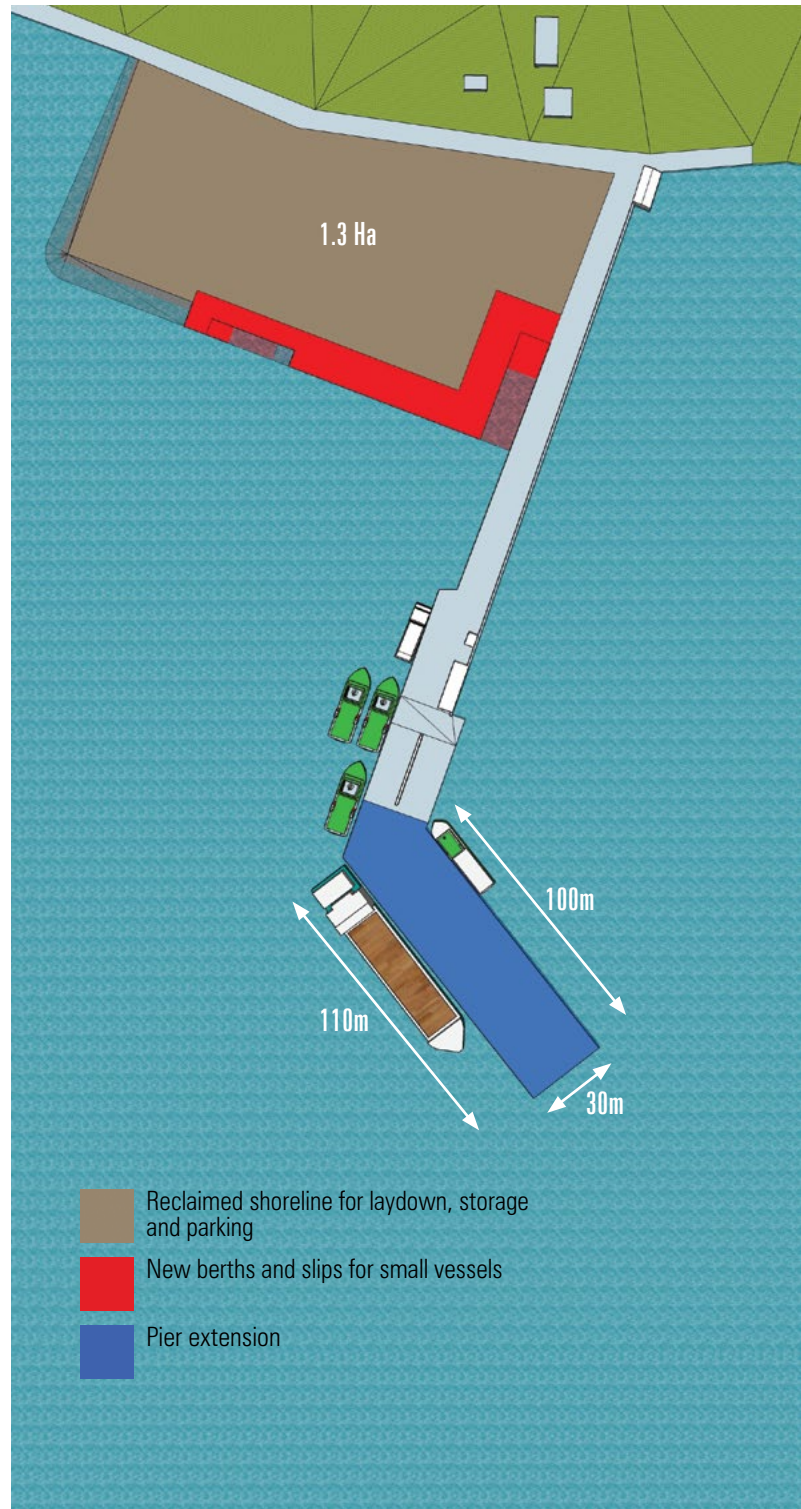
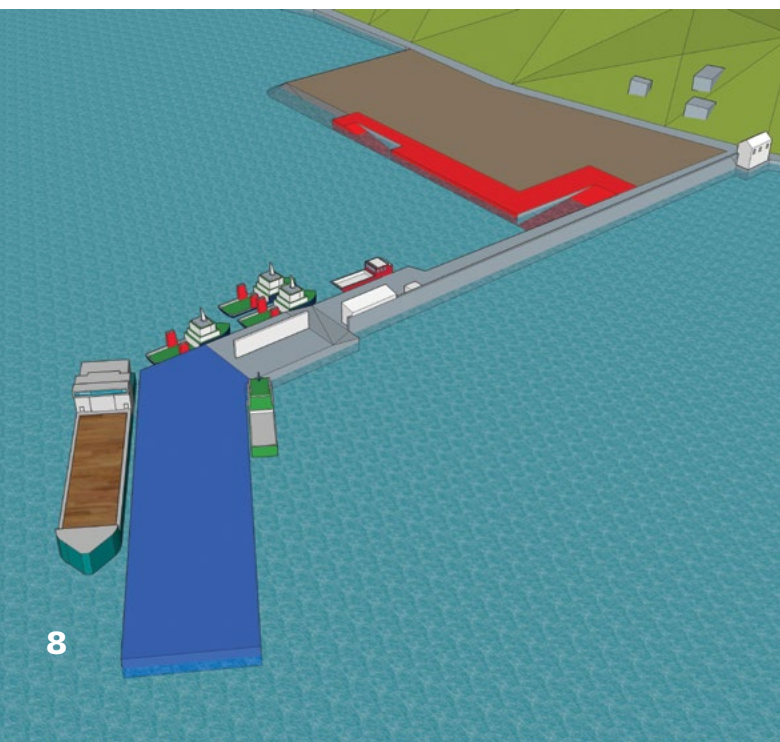
# Scapa Pier

Scapa Pier is a key component of Orkney's critical infrastructure. As well as supporting Flotta Oil Terminal activities, STS and semi-submersible rig maintenance it is the single point of entry for Orkney's entire supply of domestic and commercial hydrocarbon fuels.

The Harbour Authority owns and operates a fleet of tugs and pilot launches which are based at Scapa Pier.

## MASTERPLAN PROPOSALS:

- 110m extension to existing quay, angled and widened, with a water depth of 7.5m below Chart Datum
- Additional berths that can accommodate more and larger vessels
- Improved operational space on the quayside
- Additional landside area shoreside for laydown/storage/parking
- Several small berths and a small slip for marine leisure vessels



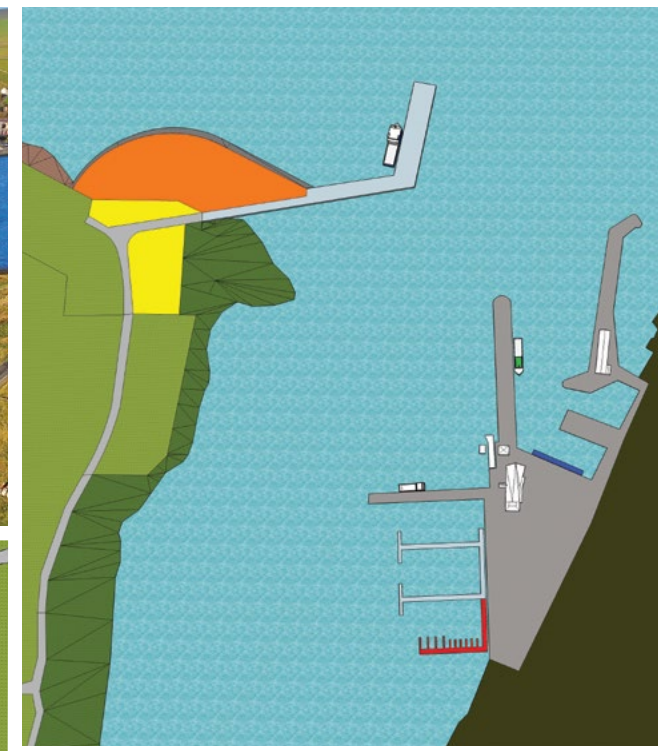


# Stromness

The harbour in Stromness is at the heart of the historic town and this vibrant harbour is a hub for ferry services, inshore fisheries, dive boats, marine leisure, cruise and renewables. Stromness has a world renowned reputation as a centre of excellence for the renewable research, design and test industry with key companies based in the town. The plan for Stromness is focused on improving the flexibility and usability of existing infrastructure, as well as creating capacity and facilities to enable growth.

## MASTERPLAN PROPOSALS:

- Marina expansion
- Dedicated cruise tender pontoon
- Creation of additional operational land at Coplands Dock
- Improvements to shoreside area and traffic management



# Decarbonisation

The Masterplan proposals, in particular the Scapa Deep Water Quay, play a key role in the decarbonisation of shipping and ports as well as the transition of fuels from hydrocarbons to carbon free. Each proposal is a stepping stone in the goal to combat Climate Change by providing world class facilities.



## Offshore Wind

Orkney is in a prime location to support the future developments in the ScotWind auction round of offshore wind.

## Hydrogen

Energy from offshore wind developments can be used to make carbon free fuels.

## Transition Fuels

Storage and bunkering of fuels that reflect the needs of shipping as the industry moves away from hydrocarbons.



**By 2030  
the UK Offshore  
Wind Sector Deal aims  
to increase the Scottish output  
of Offshore Wind to between 8 and 10GW**

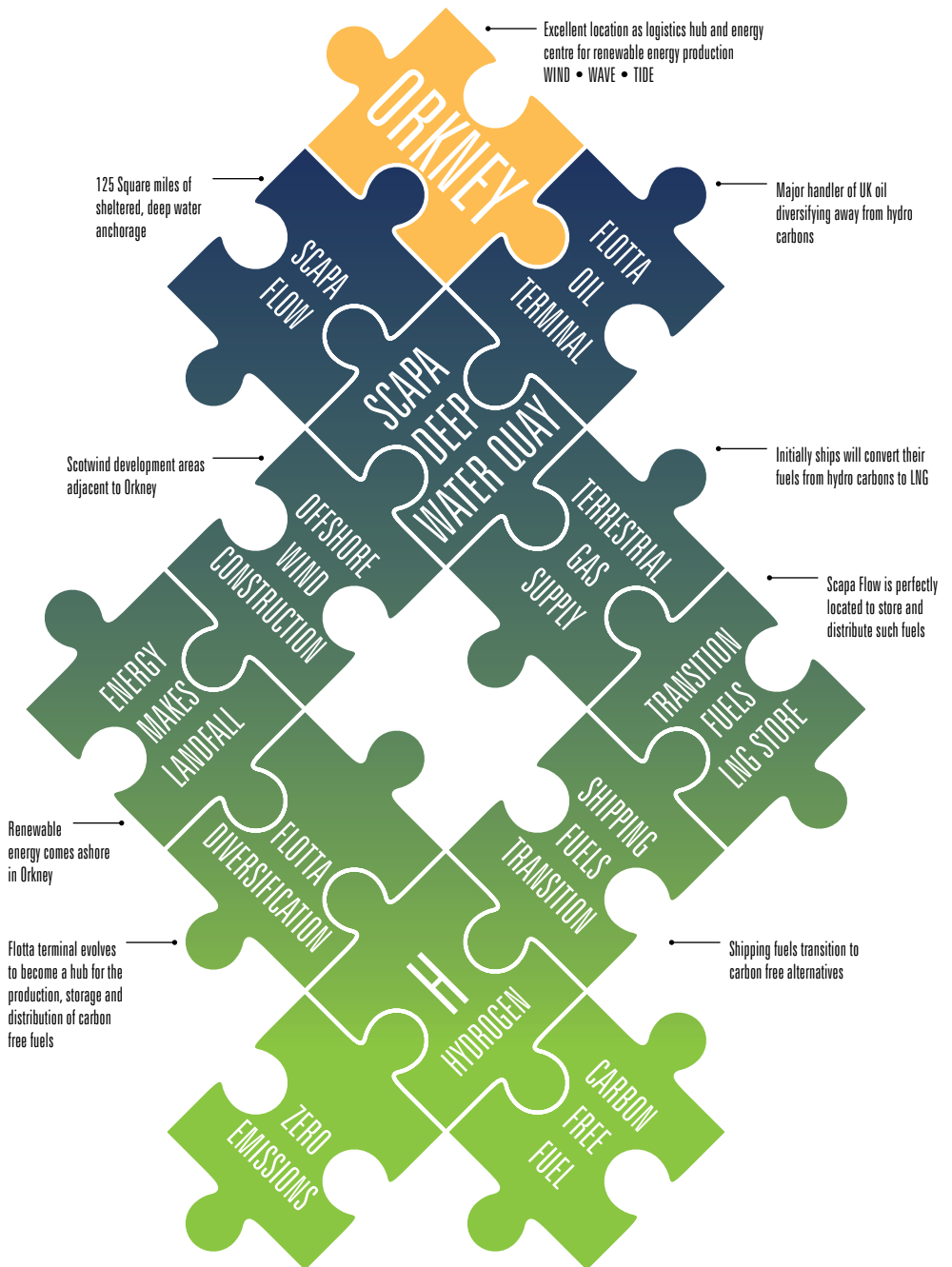
# Shipping Fuel Transition

The Flotta Oil terminal is currently at the heart of the operations in Scapa Flow and was identified as the landfall site for bringing crude oil ashore in the 1970's. With the reduction in output from the oil fields connected to Flotta there is a need to diversify the site to allow it's continued use into the mid 21st century.

The expected transition to carbon free fuels for shipping away from hydro carbons will require a transition fuel such as LNG among newbuilds as the 'dirty' fuels are removed.

With over 160 cruise calls and 8,000 vessels moving around Orkney per year there will be a need for bunkering options for lower carbon fuels that are safe and reliable. It is expected that LNG fuelled vessels will make up the majority of sea going vessels by the 2040's prior to the step towards a truly carbon free industry.

## THE MOVE TO CARBON NEUTRALITY





ORKNEY ISLANDS COUNCIL  
**Marine Services**  
HARBOUR AUTHORITY • TOWAGE SERVICES • FERRY SERVICES

Contact: Paul Olvhoj

T: 01856 873 636

E: HarboursMP@orkney.gov.uk

[www.orkneyharbours.com](http://www.orkneyharbours.com)



*Photography, Illustrations and Design: Colin Nettle • K4 Graphics*