

STRATEGIC ISSUES

This section considers the key strategic issues that have informed and shaped the Cockenzie Masterplan. These issues comprise the economic strategy, the infrastructure strategy and the place strategy.

The Cockenzie Masterplan provides the framework to potentially address the following key issues:

- Potential enhanced utilisation of the **rail infrastructure**, particularly with regard the potential opportunities of ‘four tracking’ from Prestonpans to Drem, which would create significant opportunities for additional local (and intercity) rail services on the East Coast Main Line in East Lothian. Also potential options for stations to serve the Blindwells/Cockenzie area;
- Potential opportunities to enhance the **road infrastructure**, such as utilising the Council’s landownership in the vicinity of St. Joseph’s School;
- Potential enhancement of **linkages and connectivity** (pedestrian and cycle network) between Cockenzie and the neighbouring settlements, to promote the uniqueness of the area to promote enhanced activity and use;
- Potential enhancement of the **green infrastructure** utilising the quality of the existing natural assets;
- Potential mitigation of mine water

drainage to facilitate and enable greater Blindwells.

Economic Strategy – ensuring that the Cockenzie Masterplan site becomes an economic driver fundamental to the sustainable economic growth locally, regionally and nationally. The Masterplan recognises that the energy sector will remain a key driver of growth. And the value it creates will drive the demand that will ultimately support other compatible sectors and activities. Successful, resilient and prosperous areas of the size and scale of the Cockenzie Masterplan need to have a diverse range of economic activities – from retail, tourism and recreation to serve the local population, through to a range of businesses that take up office and other commercial space. An economic strategy based on widening the economic role of the area, exploiting the assets of the site and surrounding area which makes this part of East Lothian distinctive and special, will also help to change perceptions and create an even more attractive location for investment, working and living.

Infrastructure Strategy – new and improved infrastructure is key within the overall masterplan strategy, creating the additional capacity required to deliver a range of opportunities linked to economic, community and environmental themes. Utilising the site’s infrastructure assets

can catalyse growth and attract inward investment. This will assist in growing the employment base.

Place Strategy – Cockenzie and the settlements in the surrounding area are rich in distinct heritage, landscape, coastal and natural assets. The ‘place strategy’ for the Cockenzie Masterplan – connections, movement, green infrastructure, quality and identity – aims to promote this uniqueness to a wider audience, and use the local environment to foster more activity and use. The quality of the natural assets is well provided, but their accessibility can be enhanced to enable their full potential to be achieved. A port variant to the Masterplan is also considered in response to both the consultation process where a cruise terminal was raised, as well as the Council’s view that the potential for new build port or harbour facilities at Cockenzie should relate to ‘energy’ development, and not be restricted only to ‘marine renewable energy related development’. The port variant has been considered in terms of its technical requirements, environmental impacts, operational land requirements, the market & feasibility, and potential cost implications.

Economic Strategy – Energy + Mixed Use

Energy

The Masterplan recognises that the energy sector will remain a key driver of growth. It is expected that employment and investment in the former Cockenzie Power Station site will be led by the energy sector (and its supply chain), and the value it creates will drive the demand that will ultimately support other sectors and activities. It is important to recognise that it is not possible to accurately predict the future of the energy sector. It is, however, fair to assume that renewable energy will become an increasingly important component and Cockenzie is well placed to capitalise upon this.

A priority of the Masterplan is to recognise the role the former Cockenzie Power Station site plays in accommodating associated and compatible energy-related uses, including office based jobs in the energy sector. The site can provide the opportunity to potentially support energy-related companies and provide an attractive place for their employees. It involves Cockenzie and its surrounding area becoming an acknowledged centre for innovation and collaboration, as well as a great place, where some of the brightest people both nationally and internationally want to live and work.

Innovation & Smart Specialism – Low Carbon Energy

The site of the former Cockenzie Power Station is considered to be of strategic national significance in respect of energy use. The site contains significant infrastructure assets in the form of a connection to the national grid, a railhead and a pier, which positions Cockenzie in a unique position.

NPF3 passively indicates that the site 'may' present significant opportunities for renewable energy-related investment, including on-shore grid connections for off-shore wind energy developments, such as the interconnector for the Inch Cape Offshore Wind Farm. Such potential investment may provide the opportunity for diversification that not only supports economic growth, but also resilience in the local economy. This masterplan supports the creation of new spaces to encourage collaboration and innovation in Cockenzie.

Skills, Training & Employment

The proximity of Blindwells new settlement to the Cockenzie site, which is the largest employment opportunity site in the region, and within the highly accessible western part of East Lothian, where most of the area's population is, provides an excellent opportunity for a sustainable 'live/work' model to promote future strategic housing, employment and inward investment opportunities. Provision of new jobs, services and potentially further skills and training facilities at Blindwells and Cockenzie would improve their availability and proximity to East Lothian's communities. There is also scope to use the sites to significantly improve public transport provision in the area. All of this could help reduce the need to travel, as well as reduce related CO₂ emissions.

An example of such a Centre of Excellence exists in Witney, Oxfordshire, where a partnership between industry and academia has created a new centre of excellence for offsite construction skills and learning at Stewart Milne Timber Systems Witney factory. Stewart Milne Timber Systems has joined forces with the UK Commission for Employment & Skills, Napier* and Heriot-Watt Universities, and industry partner's CCG Construction Group, to develop an offsite construction Centre of Excellence at their Oxfordshire manufacturing facility.

This offsite construction hub develops industry-focused and interactive training with the ambition of creating a highly skilled offsite construction workforce capable of supporting industry in significantly increasing the use of timber frame building methods across the country. The Centre includes a product gallery, conference centre, and learning centre which gives visitors the chance to visualise the construction process end to end, view training videos, interact with the latest technology and take part in simulations. It also includes a "training rig" to allow hands-on experience of the real-life process of timber system construction. The project is part of a wider national initiative, run by the UK Commission for Employment & Skills, which is looking at innovative ways to tackle the skills shortage in offsite construction. Offsite construction systems using timber frame are more technically advanced due to the inherent quality assurance process of a factory environment and adoption of lean production principles. Bringing these advanced systems together on-site requires a new skill level.

Another example of construction skills training closer to home, is East Lothian's new Construction and Technology Centre, a joint project between East Lothian Council and Edinburgh College, launched on 22nd November 2016 in Musselburgh. The project was facilitated with support from the Scottish Futures Trust.

The project gives school pupils in the region a head start into careers in the industry and helps meet the growing demand for skills.

The project builds on the success of academies run by the college, Queen Margaret University and local authorities including East Lothian Council. The academies – under the South East Scotland Academies Partnership banner – also give school pupils the opportunity to study for qualifications in Hospitality and Tourism, Creative Industries, Food Science and Nutrition and Health and Social Care.

**Edinburgh Napier University has been awarded the Queen's Anniversary Prize for its internationally acclaimed work in timber engineering, sustainable construction and wood science. The prestigious award recognises the global impact of the University's research into construction innovations and reducing the carbon footprint, and its influence on industry and the environment.*

Infrastructure Strategy

New and improved infrastructure plays an essential role in the overall masterplan strategy, creating the additional capacity required to deliver the Masterplan linked to economic, community and environmental themes. A connected Cockenzie site with high quality transportation and utilities infrastructure can catalyse growth and attract inward investment. This will assist in growing Cockenzie and the surrounding area's employment base and ensure East Lothian realises its potential.

The Cockenzie Masterplan consultation process during Stages 1 and 2 recognised that the site is well located and therefore with the appropriate infrastructure enhancements could be a sustainable location. Enhancements could include upgrades to the rail network.

Rail

In terms of rail, the local train services east of Edinburgh have absorbed a 250% growth in passenger numbers over the past fifteen years, way in excess of population growth and with little investment in infrastructure or extra on-train capacity. However, this is starting to change with significant pressure now starting to appear in terms of on-train crowding and also demands for more long distance Intercity trains to pass through the area.

Network Rail published the 'Scotland Route Study' in July 2016 which is the start of the long term planning process for

railway enhancements for the 2020s. In September 2016, the Rail Delivery Group (RDG) published its response to the Study through its publication 'Investing in the Future: Choices for Scotland's Railways 2019 and beyond' and then in February 2017 it published 'Scotland's Rail Infrastructure: the rail industry's advice for 2019 onwards'. These documents provide the evidence base that will inform funders in Scotland when considering rail industry investment choices for Control Periods 6 and 7 between 2019 and 2029.

PBA supported the Council in responding to the Scotland Route Study Consultation to raise the concept of four tracking from Prestonpans to Drem (rather than between Wallyford and Prestonpans as originally proposed by Network Rail). The responses to the Route Study and the subsequent rail industry publications have supported that four track option. Should that be deliverable, it would create significant opportunities for additional local (and intercity) rail services on the East Coast Main Line in East Lothian. There is an opportunity now to work with the rail funders to have this option included within future funding commitments.

This is a critical process binding Network Rail, ScotRail, other train operators, Transport Scotland and The Office of Road and Rail into the decisions about which infrastructure upgrades and what extra capacity should be provided over the next two control periods. This represents a real opportunity for East Lothian Council to influence the railway to deliver what it needs.

The decisions on which rail projects will be funded in Control Period Six (CP6) which runs from 1 April 2019 to 31 March 2024 and CP7 which runs from 2024-2029 will be made soon. The second half of Abellio's ScotRail franchise also starts on 1st April 2019 so this is a key time for introducing change. PBA has reported to the Council that with the LDP and NR Planning processes happening at the same time, there is no doubt that this is a rare conjunction of two separate planning processes, which, if the opportunity is taken, could deliver significantly enhanced rail services to East Lothian and deliver the wider rail industry requirements. With a Cockenzie Masterplan being delivered in broadly the same timeframe, and taking account of the road, rail and Active Travel Plans in the area this is an outstanding opportunity.

PBA's earlier examination of potential options for stations to serve the Blindwells/Cockenzie area reveals that there are many options from relatively minor upgrades to the existing stations at Prestonpans and Longniddry, through relocation of either or both of these two stations, to the construction of an additional new station to directly serve Blindwells and/or Cockenzie.

The rail industry response to the Scotland Route Study identifies 4-tracking between Prestonpans and Drem (including Prestonpans, Longniddry and Drem Stations) as a realistic option. This enhancement option also contributes towards accommodating the 2043 Capacity and Connectivity Conditional Outputs. Taking cognisance of the

anticipated population growth in the East Lothian area and the economic benefit of accessing employment and recreation in Edinburgh, connectivity would be significantly improved in this area of Scotland.

The purpose of the 4-tracking between Prestonpans and Drem is to allow local passenger and freight services to utilise new track between Prestonpans and Drem in order that long distance nonstopping services can overtake slower trains on this section of the East Coast Main Line (ECML). This intervention will substantially increase timetable flexibility and contribute towards additional services, as well as providing regulating capacity for freight services between Drem Junction and Millerhill. This option consists of the provision of two new tracks to form passing loops via new flat junctions between Prestonpans and Drem stations. Prestonpans, Longniddry and Drem stations would be relocated on the new loops. This scheme could be delivered as the first of several interventions required on the East Coast Main Line to achieve the 2043 Capacity and Connectivity Conditional Outputs. In conjunction with a change to the timetable, this enhancement provides the opportunity to run additional local services and the capability for nonstopping passenger services to overtake freight trains.

If the 4-tracking between Prestonpans and Drem can be delivered, there is an immediate opportunity to create a new station to serve Blindwells/Cockenzie. This would add to the time the local

stopping trains run in the loop, allowing more time for the overtaking inter-city trains to get clear, thus giving greater flexibility to the timetabling. It would also allow more scope to reduce the impact of late running northbound long distance services, which are a performance risk at present.

We have considered these issues in proposing options to serve the Blindwells/Cockenzie area, options which now form a key part of the Masterplan. Importantly, our discussions with Network Rail, who have also participated in the Cockenzie Masterplan Stage 1 and Stage 2 Consultation Workshops, have highlighted what can't be done. A passenger station located on the branch into the former Power Station would cause too much disruption to ECML trains and so these tracks could only be used for freight. But a station at either Meadowmill, or east or west Blindwells offers many significant benefits, including strong links to Cockenzie.

Potential rail interventions that have been considered as part of the Cockenzie Masterplan process, include:

- **Relocate Prestonpans station to Meadowmill** - this would involve the construction of a modern station at the Meadowmill roundabout and demolition of the existing station. It would provide fully DDA compliant access and car parking accessible from both sides of the railway. Construct new access roads and foot/cycle paths from both the new development and the existing village.

Retain and upgrade Longniddry station. As NR has decided to provide a four track railway through Prestonpans (and almost no matter where the four tracking is located Prestonpans is likely to be on it) then relocation may be a cheaper and less disruptive solution than trying to rebuild in situ. This site could also serve any development on the site of the former Cockenzie Power Station and will also better serve Tranent and Macmerrie and may expand the station's catchment area. It may also provide a better Park and Ride site serving the A1 east of Tranent.

- **A new station at the Prestonpans end of the Blindwells site** – this would involve providing a new two platform station with full accessibility, accessed primarily from the south side of the railway to the east of Meadowmill roundabout either approximately one and a half kilometres to the east of Prestonpans station or slightly further east. Significant car parking provision would ideally be provided. This option might be better than relocating and closing the existing Prestonpans station as it will better serve Blindwells and there will be no detriment to the existing users other than the extension in journey times.

A green/blue infrastructure strategy provides the potential opportunity of redirecting mine water utilising landscape strategy at Cockenzie, thereby potentially expediting the minewater issue for greater Blindwells, subject to further investigations.

Strategic Drainage

The Cockenzie Masterplan provides the opportunity for a strategic approach to be adopted in mitigating potential drainage impacts of development in the Cockenzie, Blindwells and Tranent strategic area, particularly with regard the issue of minewater.

Minewater was an issue for consideration by the Council in recently granting consent in March 2017 at Blindwells (Phase 1) for planning permission in principle for remediation of the site and creation of new settlement comprising residential, employment, education and commercial uses with park and ride and rail halt facilities and associated works (14/00768/PPM). Minewater as a result of the previous mineral extraction of the application site was the issue. On this matter, the Coal Authority advised that minewater within the site was currently controlled by the Coal Authority under a CAR license issued by SEPA. The Coal Authority has the powers to carry out this treatment, which is driven by the Water Framework Directive. They advised that should mine water management cease then there would be localised flooding. There may also be ground stability issues. However, the Coal Authority have no intention of ceasing the management of minewater at Blindwells. The Coal Authority advised that “in the unlikely event that the Coal Authority ceased to exist or did not receive funding for this type of work then central government would have to decide how such work continued to be funded and managed”.

The Proposed ELLDP safeguards a potential Blindwells Expansion Area. However, an appropriate comprehensive solution that could deliver the Council's vision for a larger single new settlement at Blindwells has not yet been found and this will continue to be sought during the life of the Plan. If such a solution is found, it will be set out in Supplementary Guidance that, if adopted by the Council, would lift the safeguard designation and provide the context to allow an appropriate proposal for a single larger new settlement to be developed. Finding an appropriate comprehensive solution with an appropriate phasing and timing of development and provision of infrastructure, services and facilities will be essential if expansion beyond the current allocation is to be justified. The Cockenzie Masterplan provides such an opportunity to develop a strategic drainage strategy for Cockenzie/Blindwells/Tranent to potentially assist in unlocking the housing potential in the area and deliver much needed housing and employment.

Place Strategy

Cockenzie and the settlements in the surrounding area are rich in distinct heritage, landscape, coastal and natural assets. The 'place strategy' for the Cockenzie Masterplan – connections, movement, green infrastructure and network, quality and identity – aims to promote this uniqueness to a wider audience, and use the local environment to foster more activity and use. The quality of the natural assets is well provided, but their accessibility can be enhanced to enable their full potential to be achieved.

The natural and cultural assets, including John Muir Way, the Waggonway, the Battle of Prestonpans are used in the Masterplan as the thread to connect the 'zones' within the site, as well as connect the site to the surrounding paths and networks.

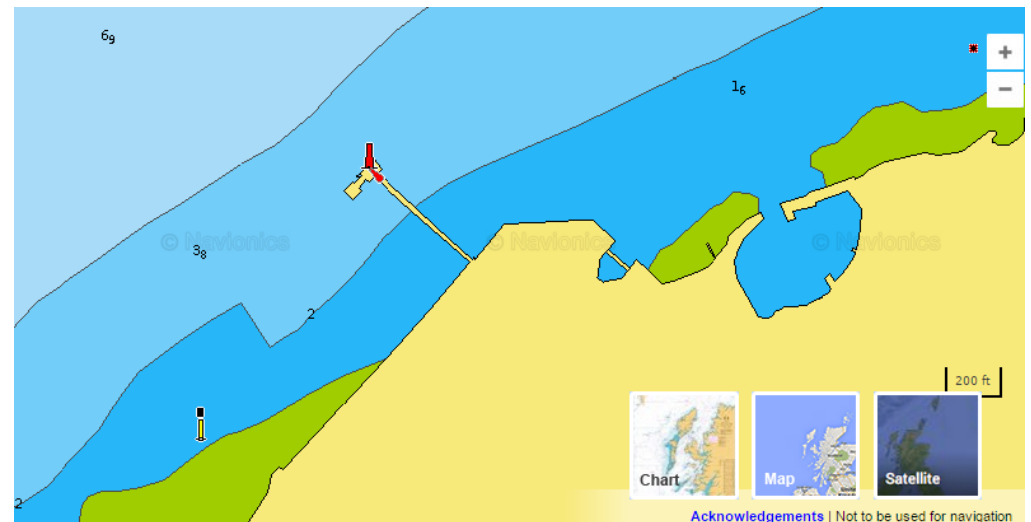
Strategic Green Network opportunities are considered in the Masterplan to ensure Cockenzie, Prestonpans, Tranent and Blindwells retain their separate identities. This will provide active travel opportunities to link communities, growth areas and places beyond them together. Opportunities for recreation and habitat creation and connection are also considered as part of a multifunctional Green Network.

Port Variant

A port variant to the Masterplan is considered in response to both the consultation process where a cruise terminal was raised, as well as the Council's view that the potential for new build port or harbour facilities at Cockenzie should relate to 'energy' development, and not be restricted only to 'marine renewable energy related development'. The port variant has been considered in terms of its technical requirements, environmental impacts, operational land requirements, the market & feasibility, and potential cost implications.

Ports and their associated trade are economic drivers. Trade development is rightly considered a central pillar of the Scottish Government's economic strategy. The role of ports is critical to the impact on trade development. Investment in new modern port infrastructure is vital in order to allow trade to expand. As Professor Alf Baird (Consultant in Maritime Economics) succinctly states in his paper, entitled 'Increased trade and economic growth won't happen in Scotland till we sort out our ports' (January 2016).

'...ongoing technological advances mean the needs of international shipping and logistics firms have fundamentally altered, and continue to change. This requires ports to adapt and modernise, demanding significant investments in new port infrastructure...'



Source: extract from Sail Scotland

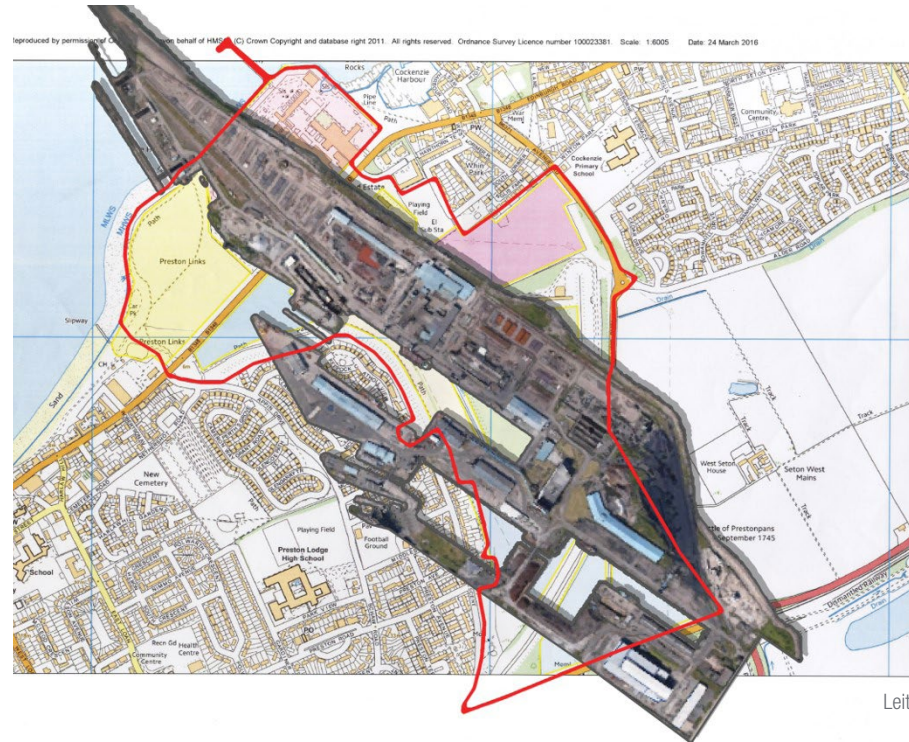
Design, Operation & Logistics

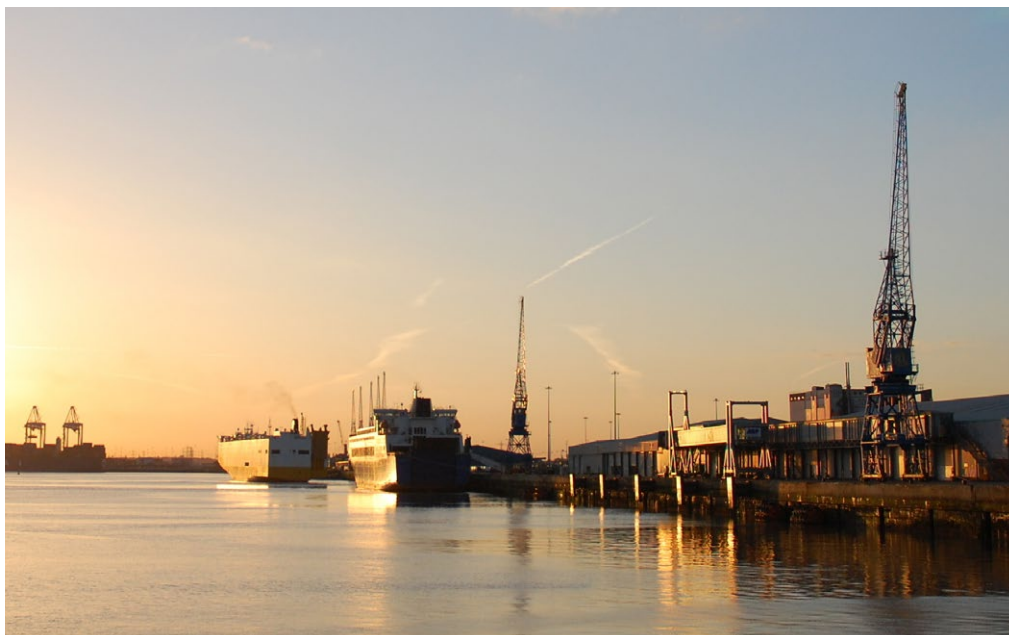
Port operations require significant land, particularly multi-functional ports combining cruise, ferry, freight, container and logistics. The majority of ports operate on a multi-facility basis to be cost effective and sustainable.

The images on the right illustrate the land take required at Cockenzie of existing port operations at Leith and Grangemouth.

With regard to international security requirements, international trading is carefully controlled. There are requirements for the transportation of goods. International Ship and Port Facility Security (ISPS) protocol provides a framework in which ports trade internationally and securely. ISPS ports are preferred by vessel operators as there are delays associated with non ISPS ports; where ports do not have ISPS in place, vessels are required to set out detailed proof of their recent stops. Ports are required to receive waste and check for vessel defects. Vessel defects are required to be reported to the Maritime and Coastguard Authority. ISPS ports have stringent security requirements, including security fenced boundary and a prohibition on public access.

These requirements would likely require careful consideration on how we reroute the John Muir Way and manage port use/public access to the foreshore in the context of a port environment.





Southampton Docks, England



Hanstholm, Denmark

Market & Feasibility

In terms of the cruise market there needs to be sufficient sea depth to be able to accommodate vessels with a draft of 9 metres. Cruise operators prefer city locations. If good transport links to Edinburgh are provided then the site would be advantageous. Vessels do not consistently call at the same locations – the cruise industry is cyclical with a limited pool of customers who want to go to different destinations. There are very few global locations which can sustain a dedicated cruise terminal. Passengers tend not to want to stay locally and part of a cruise operator's business is the sale of tours further afield from its berthing location. For example, cruise vessels have berthed at Dundee for the Open at Carnoustie, however this event has a limited occurrence. Parallels can be drawn here with East Lothian and one off events (e.g. a golf tournament) cannot sustain the construction of a port facility and its operation.

In terms of the ferry market, passenger ferries to Europe are not considered to be commercially viable as proven by the cessation of the passenger ferry at Rosyth, which is already an established port with all necessary infrastructure in place. Despite previous trials it has not been possible to commence a commercially viable ferry service between Fife and Edinburgh, where a larger customer base already exists.

In terms of the Tall Ships, the event prefers city centre locations, as experienced when Newcastle hosted the event where

locations closer to the mouth of the Tyne were not considered acceptable to the event's organisers. In addition, there can be concerns regarding the logistics of such events and managing commercial traffic at the same time. The Tall Ships event would not be sufficient to sustain a port operation on its own. In terms of rail connections, for direct rail connections into ports to be viable a high volume of goods is required to be moved on a regular basis. Passengers for ferry / cruise do not tend to use rail services as the frequency cannot sustain the infrastructure costs.

Cost & Finance

The cost of dredging to accommodate cruise or other vessels could be in excess of £25 million, assuming disposal at sea was acceptable. Alternative disposal costs could be higher. Further maintenance dredging would be required which again could be a significant on-going cost. Cost sharing between different port related uses could potentially make such an investment viable and could be explored.

Port Comparators

Kirkwall

Kirkwall Pier is located in the heart of Orkney's capital and is the main hub for the interisland ferry routes, fishing and dive vessels. It is home of Orkneys largest Marina and the second commercial hub for Orkney. The pier infrastructure offers

over 970 metres of quay edge including the ‘basin’ area with up to 6 metre drafts.

Hatston

Located just outside Kirkwall. The original pier was built in 2002 and the 160 metre extension was completed in 2013. The longest berth is 385 metres and offering 10.5 metre draft. In total there is 884 metres of quay side available for multi-purpose use. The berths are used primarily for the arrival of passenger and freight vessels, cruise ships, North Sea supply vessels and vessels supporting the marine renewables industry.

Southampton

A major dredging programme ensures that 15.5m draft vessels - the biggest currently afloat - can access the port on most days of the year. ABP Southampton handles around 14 million tonnes of cargo each year. The port supports 15,000 jobs and contributes around £1 billion to the UK economy. The port acreage is approximately 726 acres. The port is less than two miles from the M27 and has direct rail links to the main railway network for both freight and passenger trains. The Port of Southampton is served by Southampton International Airport, while Gatwick and Heathrow airports are within easy reach.

Hanstholm

Hanstholm Port is based in Denmark. It consists of an outer port and 8 basins. Basins 1-3 are fishing and traffic port basins. Basins 4-8 are dedicated fishing

port basins. Due to sand movements on the seabed, the given depths cannot always be expected in front of the port, in the outer port basin or anywhere in the port basins. As far as possible, efforts are made to keep the approach in the lighted area dredged to 9.0m during average spring low tide.

Conclusion

Ports and trade are economic drivers. However, ports require ongoing investment to ensure that they respond to technological changes and remain competitive. Without this, it becomes potentially difficult to generate sufficient trade to sustain the viability of ports. Ports to be competitive require certain basics – appropriate sea depth, length of pier, number of berths, land requirement to service multi-functional ports and accessibility.

A port at Cockenzie, albeit technically feasible, would require substantial frontend investment to achieve appropriate sea depths – potentially several hundred million pounds. In addition, it is not clear whether there would be a sufficient market hinterland to sustain a port at Cockenzie. There is also the issue of whether there would be sufficient additional land once the ‘energy requirement’ of the site is fulfilled in accordance with NPF3, for a multi-functional port facility, aside from the issue of compatibility of such uses, bearing in mind stringent legal and port operational requirements.



Hatston Pier, Kirkwall