

Explainer

Edinburgh Port of Leith | What are those yellow things – by Vicky Allan

From multiple different angles across Scotland’s capital, and across the Forth, you can see them. The rows of yellow lattice towers and giant barrels have taken up home, like a defensive line, along the edge of Leith since the start of this year.

But what are they, these Tripod and Minion-like forms? What are they doing at the Port of Leith? What is happening to them down at those docks? And why are they so brilliantly yellow?

The simple answer is that they are elements in the construction of a 1.1 gigawatt Inch Cape offshore wind farm, involving 72 turbines, which is in the process of being installed 15 to 22 kilometres off the Angus coastline, to the east of the Firth of Tay. But there is, of course, much more to what they are than that.



Inch Cape jackets and transition pieces in the Port of Leith (*Image: Peter Devlin*)

What are the giant yellow Minions?

Though the enormous yellow barrels are so reminiscent of Despicable Me characters that, on a recent visit I made to the port, one of the staff at Inch Cape even referred to them as Minions, that is, of course, not their technical name..

For those who like a bit of industry geekery, these are transition pieces, around 28 metres tall, roughly the height of an eight-storey building. Each, according to Inch Cape, is “individually designed and engineered” specifically for a “corresponding monopile foundation” which will be rooted in the seabed.

Hang on. What's a monopile?

Nothing to do with board games, but rather an enormous metal cylinder that forms the base of the structure.

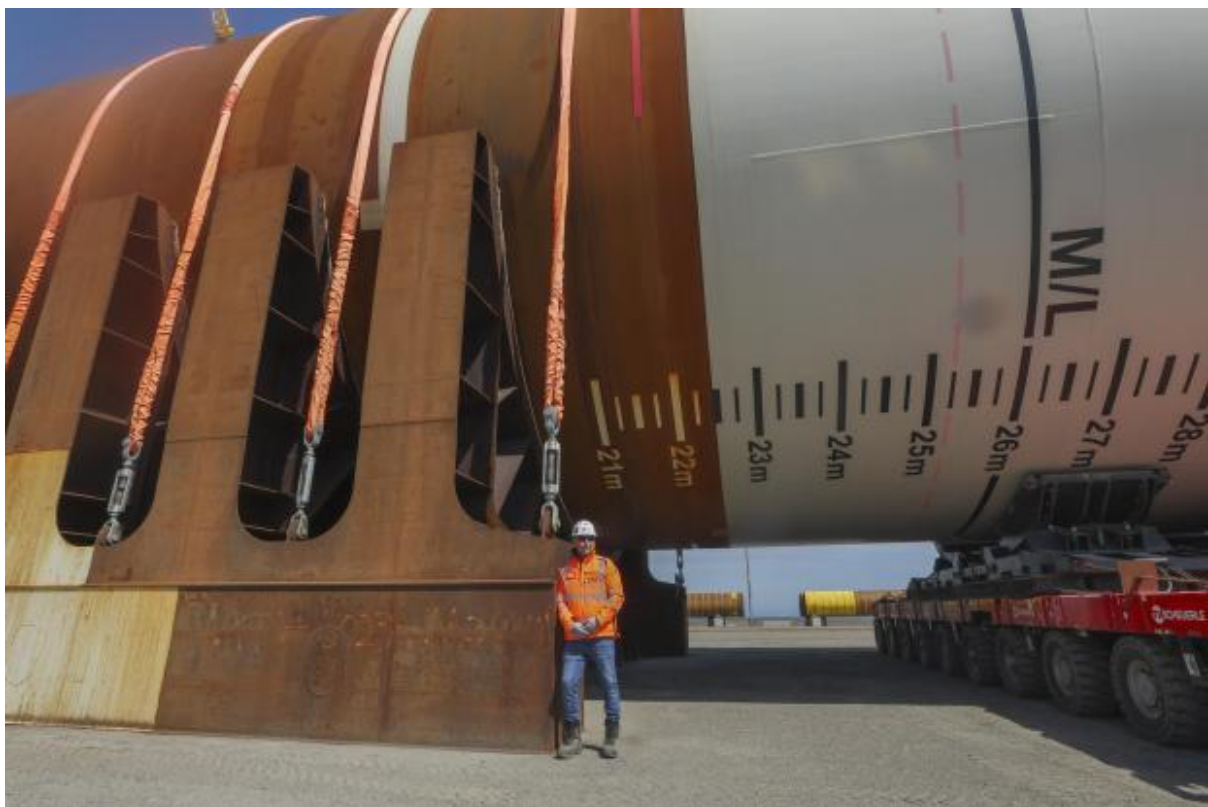
The first XXL monopiles arrived at the Port of Leith in October 2025. They are up to 102 metres long, weighing around 2300 tonnes and with diameters of 11.5 metres.

Steve Calderwood, logistics and marshalling harbour coordinator at the site, told me, "We believe, though we're still trying to qualify it, that we've installed the biggest monopile in the world today."

The transition pieces are the connection between these super-sized foundations which root the structure in the seabed, and the wind turbine towers on top. They are secured together using bolts and grout.

The wind turbine tower will then be installed with more bolting to secure it on top. They provide a stable interface between the project's monopiles and the wind turbine towers.

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Head of project operations Mike Roberts in front of a monopile (*Image: GordonTerry/Herald&Times*)

What's the little ladder on the side of the transition pieces?

“The transition pieces,” Inch Cape’s website explains, “feature a boat landing system, access ladder and external work platform enabling Inch Cape’s technicians and engineers to enter the wind turbine tower for maintenance activity during the operational phase of the project.”

And what are the yellow things that look like Tripods from War of the Worlds?

These, in fact, are not Wellsian fighting machines, but what are called jackets. They are a lattice steel framework with three legs and an integral transition piece that the wind turbine tower will be bolted to.

These are typically used where water depths are above 55 metres and each one of the 18 used by Inch Cape is designed to suit its specific location based on water depth, soil conditions and turbine size.

Once on site, the jacket foundations are lowered individually onto the seabed and secured in place on the pre-installed pin piles, one for each leg.

Those jackets look bigger than any of the buildings in Edinburgh. Are they?

Not quite. The tallest building in [Edinburgh](#) (not a city renowned for its skyscrapers) is St Mary’s Episcopal cathedral at 90 metres tall. Inch Cape’s jackets are varying sizes up to 89 metres tall each, and they weigh between 2,050 tonnes and 2,250 tonnes. But nevertheless you would be forgiven for thinking, given the view from the Firth of Forth, in which they seem to obscure most of Edinburgh, that they were cumulatively the biggest series of structures around.

Jackets and pin piles. How do they fit together?

Each jacket foundation requires three pin piles – one for each leg – to fix it to the seabed. The pin piles are installed first - requiring stringent accuracy using a specially designed and fabricated pile installation frame. The jacket foundation is then lowered onto the pin piles. Pile grippers at the base of each jacket leg grip the pile (hence the name) to secure the jacket and keep it stable and level while grouting takes place.

Where were the transition pieces made?

These barrels were fabricated by two separate Chinese fabricators. COOEC-Fluor Heavy Industries (COOEC-FHI) fabricated 24 transition pieces and CWHI fabricated 30 transition pieces.

The first batch of CWHI-fabricated transition pieces were transported by the heavy-lift vessel Hua Sheng Long and arrived at the Port of Leith on 5 January. Since then more arrived. They are now being installed at sea by marine contractor Seaway7 using the vessel Alfa Lift .

What about the jackets? Where were they made?

China again, manufactured by COOEC-Fluor Heavy Industries (COOEC-FHI) at their fabrication base in Zhuhai, China. These were, according to the People's Daily China "the largest single-unit-capacity offshore wind turbine jackets" China has exported.

And the monopiles?

CNOOD-Wenchong Heavy Industries (CWHI) manufactured 32 of the monopiles at their yard in Qinzhou, China. Dajin Heavy Industry manufactured the remaining 22 monopiles at their facility in Penglai, China.

What about the turbines?

The turbines themselves are being pre-assembled and marshalled by the Danish company Vestas in Dundee.

Who is behind Inch Cape offshore wind farm?

Inch Cape Offshore Ltd is a 50/50 joint venture between Edinburgh-based Red Rock Power, which is the European subsidiary of SDIC Power, a global energy company based in Beijing and the Ireland's state-owned electricity company ESB.

SDIC Power is a listed company on the Shanghai Stock Exchange, majority owned by China's State Development and Investment Group Co.

So what exactly do they bring financially to Scotland?

Jobs at the port and in installation and maintenance, energy-generating infrastructure that will help us decarbonise our grid and supply enough electricity to power over half of Scotland's homes.

Earlier this year, a report, prepared by BIGGAR Economics and titled "Socio economic benefits of Inch Cape Offshore Wind Farm," was published. It said: "The project represents a total investment of around £8.4 billion. Of this, approximately 56%, or £4.7bn, is expected to be spent within the UK."

That 56% is slightly below the UK Government target of 60% UK content in offshore wind projects by 2030. But it is also an improvement on Inch Cape's initial commitment to 50% of spending in the UK.

£2.7bn of that investment, according to a report, is in Scotland and £1bn, just over an eighth, in the eastern Scotland region.

Why is everything yellow?

Both jackets and transition pieces are painted an industry-standard bright-yellow to ensure visibility at sea, with Inch Cape's particular tone known as traffic yellow RAL 1023.

The boats are very impressive too

They certainly are. For those who have been watching the port, one of the wow-factors has been the sheer scale of the vessels that bring them in or take them out to be installed at sea. Among them is heavy lift vessel Les Alizés and 218-metre Seaway Alfa Lift, one of the longest vessels to ever use the port's new Charles Hammond Berth.

Over recent months Jan De Nul's heavy-lift vessel, Les Alizés has been carrying monopiles out to their positions off the Angus coast. All the monopiles are now installed so Les Alizés has moved on to another job.

It features a 5,000-tonne crane, a 61,000-tonne dead weight capacity and 9,300 m² of deck space and is, according to its owners, "able to load out, transport and install multiple units of the largest and heaviest wind turbine foundations whilst floating". Jan De Nul says, "Les Alizés is one of the first seaworthy installation vessels in the world with extremely low emissions, a so-called Ultra-Low Emission vessel or ULEv."

When will the yellow show be over?

Inch Cape predict that the installation will be done by the end of the year, and therefore all the yellow towers will be gone by then. However, Forth Ports are already looking to line up their next offshore wind client for the space when Inch Cape is done. This is the work for which the port has been upgraded – with already £150 million invested in Port of Leith infrastructure to deliver facilities for this purpose, including the Charles Hammond deep berth

What are the best spots in Edinburgh to view the yellow things from?

Where do I start? There is no end to the possible locations. The Port of Leith distillery bar, John Lewis's cafe, Platinum Point at Western Harbour, walking down Easter Road, even Kinghorn in Fife or from the train heading south through Fife.

But perhaps you have your own favourite spot. If you'd like to share a photograph, please do send to vicky.allan@heraldandtimes.co.uk. I'm always on the lookout for a new view on the yellow visitors.