



Green Energy – Green Jobs

Sean Chenery
Galloper Wind Farm
General Manager

RWE



Introductions!

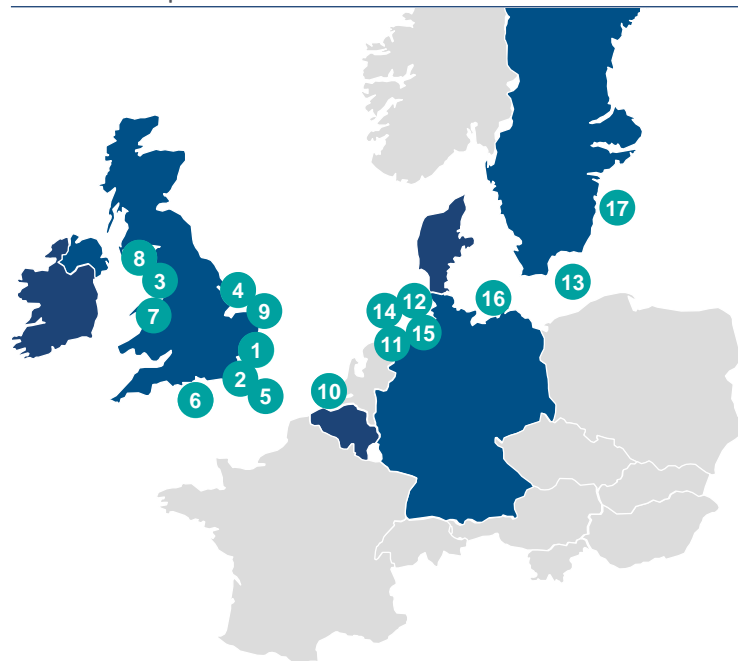
- Sean Chenery, General Manager
- Galloper Offshore Wind Farm - 6 years
- Time Served Apprentice
- Held many different roles in the Power industry, Nuclear, Gas & Wind
- RWE, one of the world's leading energy companies
- Developed, built and operate the wind farm on behalf of project partners



RWE offshore wind assets

In operation

2.4 GW² in operation



In operation

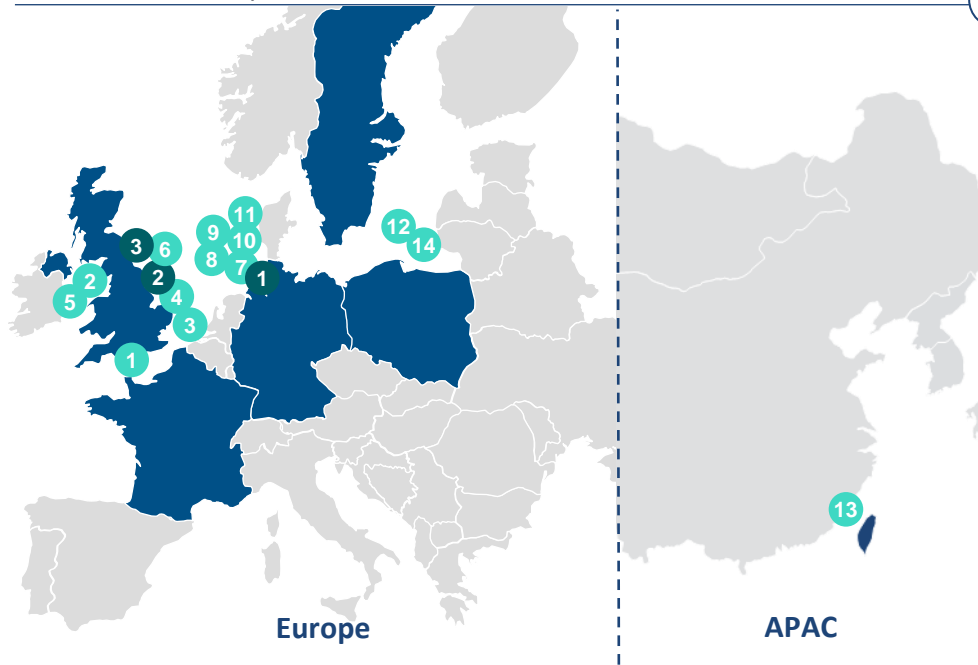
- | | |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 Galloper
UK, 352.8 MW ¹ (88 MW ²) | 10 Thornton Bank
BE, 325 MW ¹ (87 MW ²) |
| 2 Greater Gabbard
UK, 504 MW ¹ (252 MW ²) | 11 Alpha Ventus
DE, 60 MW ¹ (16 MW ²) |
| 3 Gwynt y Môr
UK, 576 MW ¹ (288 MW ²) | 12 Amrumbank West
DE, 302 MW ^{1,2} |
| 4 Humber
UK, 219 MW ¹ (112 MW ²) | 13 Arkona
DE, 385 MW ¹ (193 MW ²) |
| 5 London Array
UK, 629 MW ¹ (189 MW ²) | 14 Nordsee One
DE, 332 MW ¹ (45 MW ²) |
| 6 Rampion
UK, 400 MW ¹ (120 MW ²) | 15 Nordsee Ost
DE, 295 MW ^{1,2} |
| 7 Rhyl Flats
UK, 90 MW ¹ (45 MW ²) | 16 Rødsand 2
DK, 207 MW ¹ (41 MW ²) |
| 8 Robin Rigg
UK, 174 MW ^{1,2} | 17 Kårehamn
SE, 48 MW ^{1,2} |
| 9 Scroby Sands
UK, 60 MW ^{1,2} | |

¹ Total installed capacity | ² Owned renewables capacity as of March 2021. Pro rata capacity.

RWE offshore wind projects

In development & under construction

13.8 GW¹ in development & under construction



In development

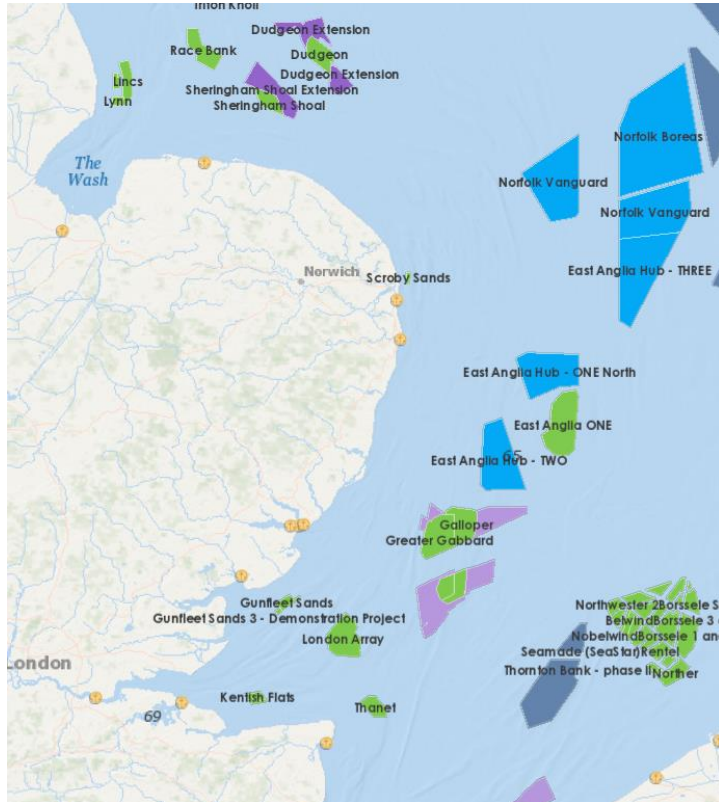
- | | |
|------------------------------------------------------------------------------------|--------------------------------------------------------------------------|
| 1 Rampion 2
UK, 1,200 MW ¹ (601 MW ²) | 8 Nordsee Two
DE, 433 MW ¹ (221 MW ²) |
| 2 Awel y Môr
UK, 576 MW ¹ (346 MW ²) | 9 Nordsee Three
DE, 420 MW ¹ (214 MW ²) |
| 3 Five Estuaries
UK, 353 MW ¹ (88 MW ²) | 10 Godewind 4b
DE, 225 MW ¹ |
| 4 North Falls
UK, 504 MW ¹ (252 MW ²) | 11 Thor
DK, ~1,000 MW ¹ |
| 5 Dublin Array
IE, 600 MW ¹ (450 MW ²) | 12 Södra Midsjöbanken
SE, 1,600 MW ¹ |
| 6 Dogger Bank South
UK, 3,000 MW ^{1,2} | 13 Chu Feng
TWN, 448 MW ¹ |
| 7 Delta Nordsee 1 & 2
DE, 480 MW ¹ (245 MW ²) | 14 FEW Baltic II
PL, 350 MW ^{1,2} |

Under construction

- | |
|-------------------------------------------------------------------------|
| 1 Kaskasi
DE, 342 MW ^{1,2} |
| 2 Triton Knoll
UK, 857 MW ¹ (506 MW ²) |
| 3 Sofia
UK, 1,400 MW ^{1,2} |

¹ Total installed capacity | ² Owned renewables capacity as of January 2022. Pro rata capacity.

The South North Sea area



East Anglia is a hot spot for Offshore Wind with a large number of wind farms in operation, under construction or in development stages

Requirements for construction workers, vessel operations, port facilities, long term operations personnel,

Gallopers location and bases

- Galloper field is 27km off the coast of Suffolk
- Turbine assembly base was in Great Yarmouth
- Offshore Construction Coordination Base in Lowestoft
- Galloper Onshore Substation in Sizewell
- Operations & Maintenance Base in Harwich

Jobs and investment benefits shared all along the East coast



Local extension projects

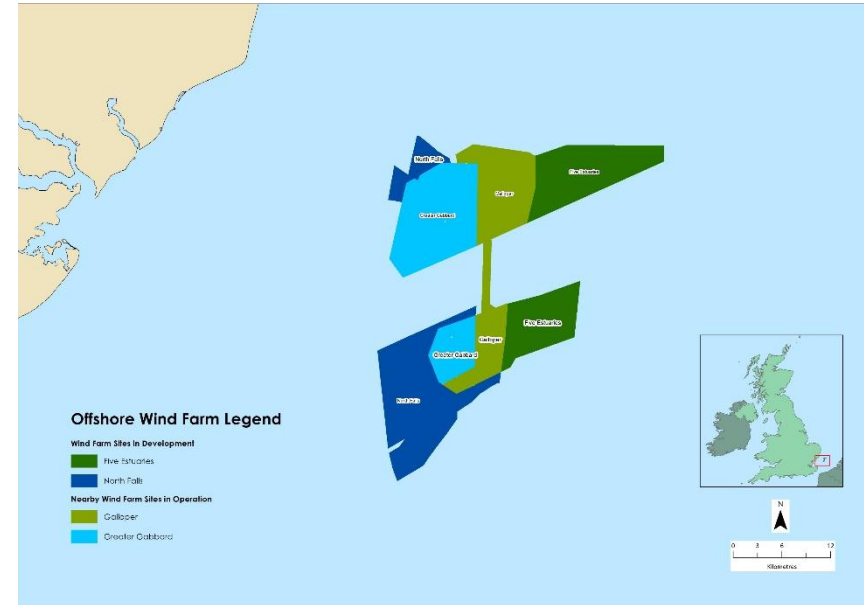
North Falls

- 20 kilometres off the UK coast in the southern North Sea, covering 150 km²
- Current capacity and grid offer is for 504MW
- North Falls is being developed by a joint venture company owned equally 50/50 by SSE Renewables and RWE.

Five Estuaries

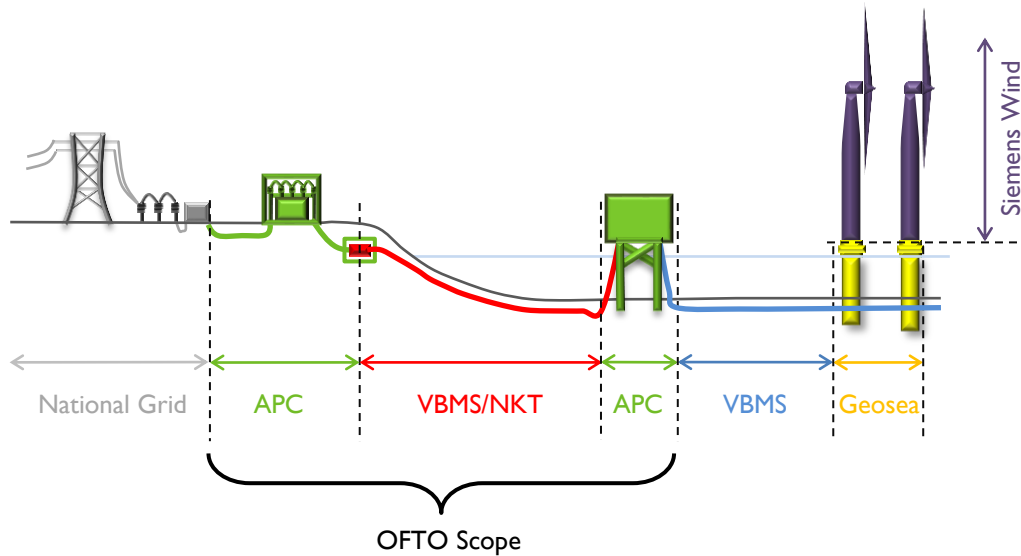
- 37km closest distance to shore off the coast of Suffolk and located adjacent to the Galloper Wind Farm and with a seabed area of 149km²
- Project partners are: a Macquarie-led consortium, RWE, Siemens Financial Services, ESB and Sumitomo Corporation. RWE is leading the development of the project.

Both projects are preparing for preliminary survey work as well as assessing project constraints and engaging with stakeholders
The development consent order application and supporting environmental data is currently scheduled for submission in 2023



Galloper Wind Farm Technology Summary

The Galloper Wind Farm infrastructure and main contractors responsible for installing that infrastructure included the following:



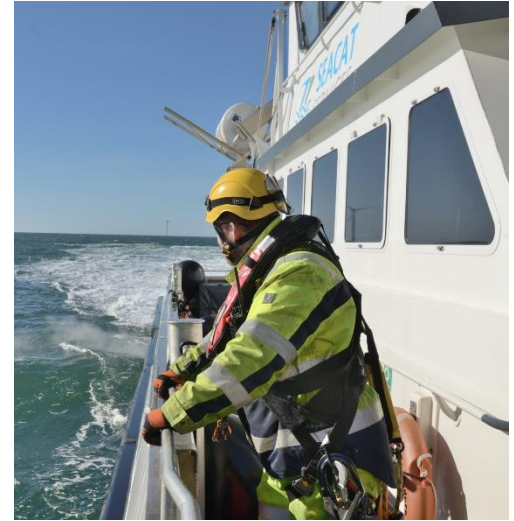
Operations & Maintenance Base

- 23 year life-span to support Galloper Wind Farm
- Employ many local people
- Work closely to support local initiatives and work with young people, schools and organisations
- We now have 5 apprentices working with the team (year 1, 2 & 4)

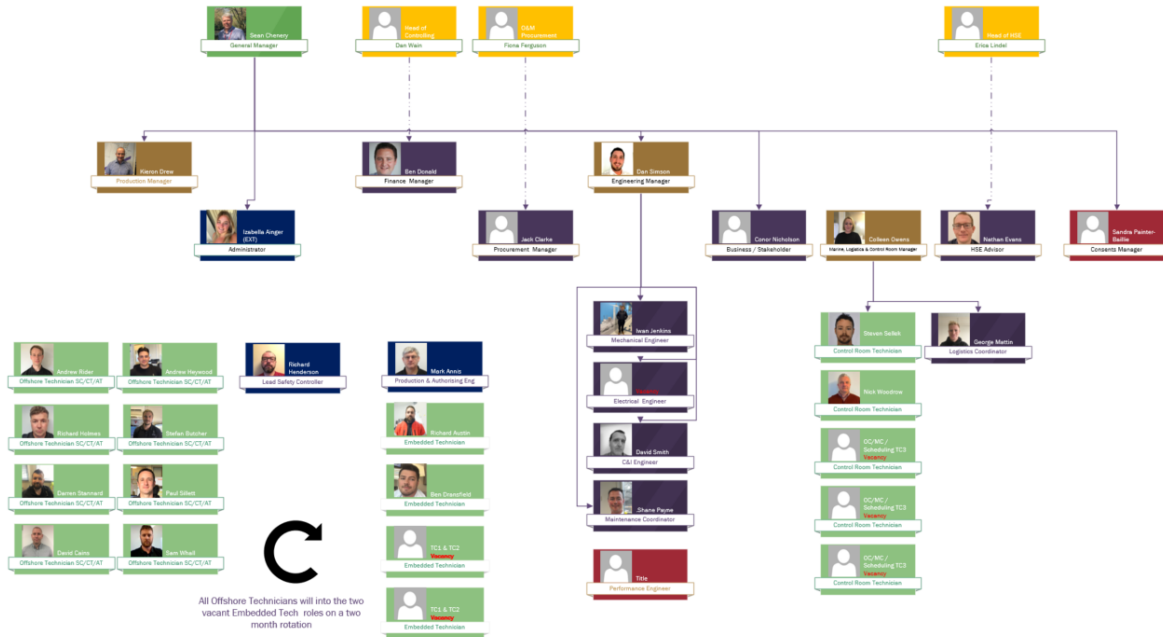


Technician careers in offshore wind

- Offshore Technicians and Apprentices will have studied to GCSE Math, English, Science, Physics, Chemistry and Electronics.
- Technicians will further study to BTEC, C&G NVQ Level 2 and C&G NVQ Level 3 Diploma in Wind Turbine Maintenance .
- Engineers will further study A level (Maths, Science) and degree level in Electrics, Mechanics, Environmental and Surveying.
- Other roles include Planners (IT Excel, MS Projects) Procurement, Administrators (Business studies) and Logistics and H&S (IOSH, NEBOSH) and there's PR, HR and administrative roles.
- Recruit from other industries and the military with internal career development paths to management.



The Galloper Operational team



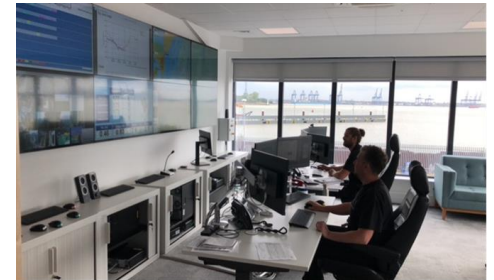
30 Full time local roles for RWE (site operator) supported by 30 full time roles with SGRE (service and maintenance provider)

Local teams are supported by teams of specialists from both RWE and SGRE

The site team's previous experience

We have built the local team by enhancing their transferable skills from other industries with specific offshore wind knowledge. We have team members from the following sectors;

- Military – Army, Air Force, Royal Navy
- Thermal power stations
- Domestic services – Electrical Installations
- Port Facilities
- Manufacturing and Fabrication
- Building Facilities and Construction
- Steel works
- Industrial Maintenance / Engineering
- Apprenticeships



Roles required within Offshore Operations

Performance Management – Technical & Business

Health, Safety and Environmental specialists

Procurement / Contract Management

Warehousing

Vessels and Logistics

Planning & Project Management

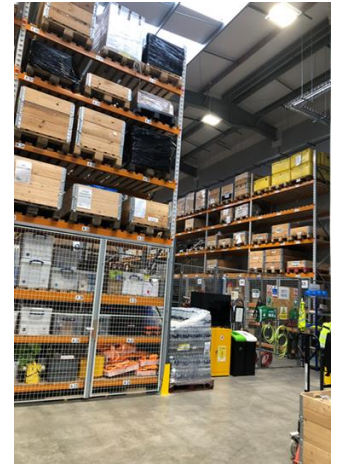
Stakeholder Management

Financial Accounting

Engineering – Reactive, Compliance, Innovation and Improvements

Offshore Technician

Consents experts



Roles required within UK Offshore Wind

TODAYS
WORKFORCE

31,082 

Total UK Offshore Wind Workforce

19,591 
Direct Jobs

11,491 
Indirect Jobs

(X3)

TOMORROWS
WORKFORCE



By **2030**, UK Offshore Wind is forecast to employ

97,465

jobs. 61,361 direct jobs and 36,104 indirect jobs.

In March 2019 the Sector Deal set a target of 30GW of Offshore Wind by 2030

The 30GW target was then stretched to 40GW

The UK Government further increased this target to 50GW in 2022 effectively quadrupling the planned capacity in the next 8 years

Community Benefits



Litter picking along
Dovercourt Seafront
followed by Fish &
Chips at Ha'penny Pier



Supporters of the Parkeston Residents
and Welfare Park Association Christmas
Party

Supporting The Big Green Internet &
Market Fields Farm in the
establishment for habitats for the
door mouse



Rolf CofE Primary school
were able to restore their
pond with the donations
from the Galloper
Community Fund

Galloper Wind Farm has supported many local good causes annually through its work with
the Essex Community Foundation Fund

Supporting Education



STEM Ambassadors attending Career Fair, highlighting the opportunities and roles within renewable energy and offshore wind

Galloper supports Harwich & Dovercourt High School in their community art project. This ongoing art project is for the Galloper O&M base reception area will also be exhibited at the Harwich Arts & Heritage Centre in Dovercourt



Octavius is now in full view at the O&M base, painted by a local young artist for the Octopus Ahoy trail to celebrate the Mayflower 400



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