

## Rampion Windfarm presentation by Chris Tomlinson, EOn

### Rampion Offshore Wind Farm



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### Presentation Overview :

1. The story so far
2. Consenting the Project
3. Scope of consented Project
4. Planning for construction
5. Construction
6. Operations & Maintenance
7. Benefits of the Project
8. Opportunities for local businesses and training
9. Indicative Project timetable



## 1. The story so far

### 2010-11: Formulating draft proposals

- Engineering & environmental surveys and environmental impact assessment inform early draft proposals for statutory and community consultation

### 2012: Consultation

- Combined total of 20 weeks, 14 public exhibitions, 4,700 people, 1,500 responses
- Onshore feedback - potential temporary impacts on Public Rights of Way (PRoW), hedgerows and semi-natural ancient woodland, chalk grasslands (especially Tottington Mount) and the South Downs National Park
- Onshore substation feedback - the exact location and footprint, potential visual impact and need for landscaping / screening, potential temporary impacts of construction traffic on Bob Lane, lorries turning, muddy roads, lighting and noise
- Offshore feedback - visual impact from Heritage Coast, impacts on commercial fishing and on wave height, potential impacts of piling noise on marine environment

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## The story so far...

### 2013: Onshore design changes and mitigations for DCO submission

- Minor realignments of the cable route to avoid ecologically sensitive areas
- Tailored construction method for Tottington Mount to reduce impacts
- Commitment to undertaking an arboricultural survey ahead of construction
- Ducting method of installation
- Commitment to a PRoW Comms Strategy
- Commitment to investigate buried archaeology along the cable route and a method statement for crossing the Scheduled Monument
- Avoiding construction access from Bob Lane
- Use of planting to screen the substation site
- Construction Traffic Management Plan to include dedicated routes and one way systems, road safety signage and wheel washing facility

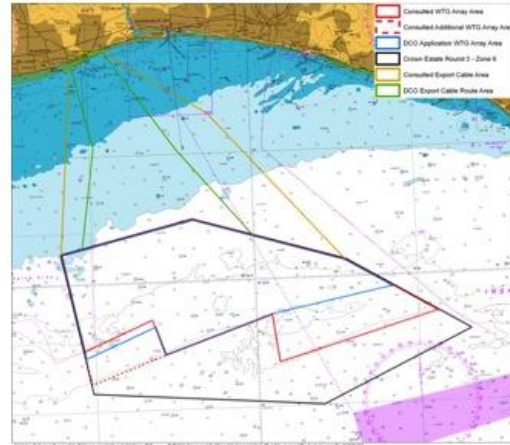


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## The story so far...

### 2013: Offshore design changes and mitigations for DCO submission

- Reduction in offshore wind farm site area by 24% from 167km<sup>2</sup> to 139km<sup>2</sup>
- Reduction in maximum number of turbines by 20, from 195 to 175
- Narrowed export cable corridor to avoid Shoreham Port anchorage area
- Mitigation proposals to reduce impact on marine ecology, e.g. soft start piling
- Reduced potential gravity base foundations to avoid affecting wave climate



March 2013: DCO submission to the Planning Inspectorate



5

## 2. Consenting the Project

### Consent process

- July 2013 - January 2014: Plans formally examined by the Examining Authority (ExA), appointed by the Planning Inspectorate (PINS)
- 14 days of public hearings with local councils, statutory bodies and key stakeholders
- Examination resulted in further reduction in offshore site area and cable route corridor:
  - lessening the visual impact from the Heritage Coast;
  - minimising disruption to commercial fishing;
  - minimising disruption to vessels using the route from English Channel to Shoreham Port

### Consent granted

The Secretary of State for Energy & Climate Change granted consent for Rampion, the first wind farm of the south coast of England, 16<sup>th</sup> July 2014



6



### 3. Scope of Rampion project Offshore

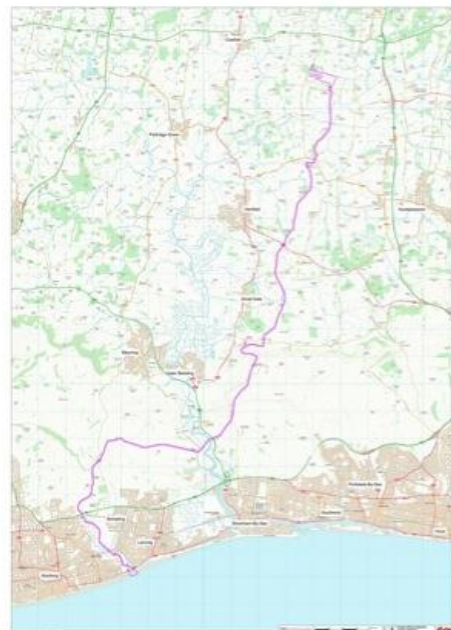
- 122km<sup>2</sup> wind farm site area
- 13km - 20km off Sussex coast
- Water depths between 20-40m
- Up to 175 turbines
- Inter array cables linking the turbines to one or two offshore substations
- Subsea export cables will transport the electricity to shore
- Capacity up to 700MW
- *Potential for further reduction in site area following final site optimisation*



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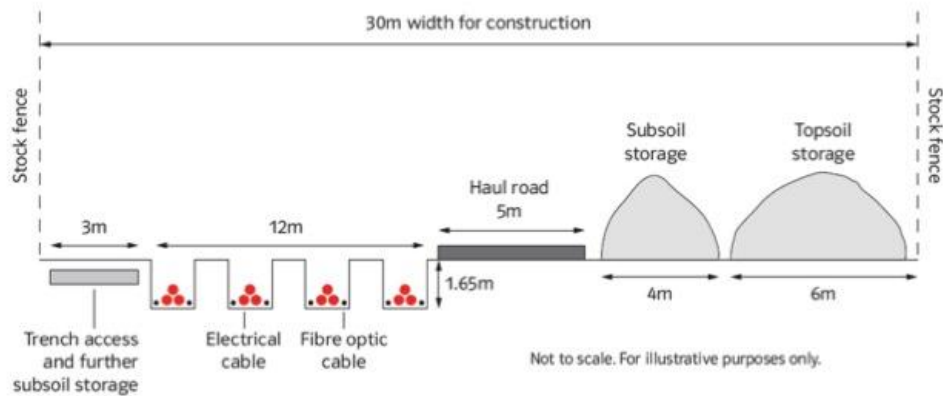
### Scope of Rampion Project Onshore

- Landfall at Brooklands, East Worthing
- 27km long cable route
- Buried underground for entire route
- New substation at Bolney
- Connection into Bolney 400kV
- No 'easy'/straight connection route
- Up to 4 x 132/150kV circuits
- 30m working width / 15m easement
- 50+ land agreements (owners, tenants, occupiers)
- Includes Local Authorities, National Grid, Network Rail and National Trust



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## Indicative cross section of the onshore cable route



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9

## 4. Preparing for construction - final design

Onshore cable route engineering surveys to inform:

- the final 30 metre wide working width
- Horizontal direction drill locations and crossing methodologies
- Micrositing to protect ecologically sensitive areas, trees etc

Offshore geotechnical site investigations and two years of wind data to inform:

- turbine size and numbers
- foundation design
- precise turbine locations
- turbine layout a regular grid matrix with a minimum spacing of 600m

*Final layout and construction methodologies to be agreed with relevant marine authorities*

We will communicate the final Project design in Autumn

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10

## Preparing for construction - DCO Requirements

- DCO includes Requirements (similar to planning conditions)
- Requirements must be adhered to during pre-construction & construction
- Includes a suite of mitigation plans:

### Construction Traffic Management Plan (CTMP)

- developed with, and for approval by WSCC Highways
- manage traffic and reduce impact on local communities, e.g. HGV routes, wheel washing facilities, limiting access points, holding area

### Construction Noise Management Plan (CNMP)

- developed with, and for approval by WSCC Highways
- noise and vibration management including noise barriers, timing of noisy works to avoid the most sensitive times of day, where possible

### Ecology and Landscape Management Plan

- details of ecological mitigation and enhancements (e.g. habitat creation)
- specific species method statements (e.g. Great Crested Newts)
- seed collection method statement for rare species (e.g. grassland)
- scheme for the restoration of the chalk grasslands
- Hedgerow Management and Arboricultural surveys



## Preparing for construction - tenders for lead contracts

- Preparing tender documents for our lead contractors
- Currently in the tender process and still in negotiations
- Expect to award first contracts in early 2015 to enable construction to commence in Spring 2015

## Preparing for construction - communication & engagement

- Project Liaison Groups
- Fisheries Working Groups
- Local Liaison Group for residents around the onshore substation
- PRoW workshop
- Cable route events to raise awareness
- [www.sussexwindenergy.org.uk](http://www.sussexwindenergy.org.uk)





## 5. Construction - Offshore

- 3 year construction period commencing Q1 2016
- 250-300 jobs in the workforce during offshore construction

### Project Management Facility for construction located at Newhaven Port:

- Provides portside availability, flexibility of space and ease of access to site
- Offers continuity throughout construction into operation
- Temporary portakabins until O&M base is complete
- Newhaven hub of activity creating up to 40 jobs and utilising local vessels



### We will seek to minimise disruption by:

- Employing Fishing Industry Reps
- Having Offshore Fishing Liaison Officers on construction vessels
- Issuing Notices to Mariners re 500m exclusion zones

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## Construction - Onshore cable route

- 2 year construction commencing Q2 2015
- 60-100 in workforce during onshore construction

### We will seek to minimise disruption by:

- Ducting installation method - trench and backfill sections of approximately 1km over 3 - 4 weeks
- Horizontal Directional Drill (HDD) roads & railway
- Tailored construction methodology for Tottington Mt
- Keeping 9 hole 'Par 3' golf course open at Brooklands during the works



- Working with SDNPA & WSCC and engaging with local communities along the route for the duration of construction

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## Construction - onshore substation

- 2.5 year construction period commencing Spring 2015
- 40-60 in workforce during construction

### Construction elements

- Scope of works includes civil/enabling, electrical build and commissioning
- Transforms power up to 400kV and conditions power prior to entry into transmission system
- Max height (transformers) 10.5m tall



### We will seek to minimise disruption by:

- Construction Traffic Management Plan (CTMP) and Construction Noise Management Plan to be agreed and enforced by WSCC
- Communication with local residents and continuing regular engagement with the dedicated Local Liaison Group



15

## 6. Operations & Maintenance

Operations Base located at Newhaven Port, to include control room, office, warehouse and quayside infrastructure, benefiting the local economy by:

- Triggering regeneration plans for NPP (already encouraged new tenants)
- Creating opportunities for indirect local employment in the form of up to 30 support service contracts and other local expenditure
- Creating up to 65 full time, permanent jobs

### Operation Base development process:

2014 - in discussions with Lewes District Council regarding the planning process

2015 - design proposals

2016 - construction commences

2017 - O&M base complete (used for PM)



16



## Operations Facility at Newhaven



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## 7. Benefits of the Rampion Project

**Power output** - Based on 700MW, the site could generate enough electricity each year to power the equivalent of 450,000 homes, more than two-thirds of the homes in Sussex. Once we have concluded the final project design, we will be able to confirm the power output.

**CO<sub>2</sub> savings** - Based on a scheme of 700MW, Rampion could avoid the emission of over 920,000 tonnes of CO<sub>2</sub> each year for the lifetime of the project. Once we have concluded the final project design, we will confirm the CO<sub>2</sub> saving

**Boosting the local economy** - Rampion could create up to 65 full time permanent jobs (the majority to be recruited locally), create opportunities for local companies and services to bid for contracts and may also enhance tourism.

**Marine ecology** - Anecdotal evidence from environmental studies at operating wind farms shows that foundations can act as a natural reef, potentially attracting species to the structures.

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## Benefits of the Rampion Project

### Visitor Centre

- Committed to opening a Rampion Visitor Centre on the Sussex coast
- Help support the local tourist economy
- Scroby Sands Visitor Centre in Norfolk attracts 40,000 visitors each year.



### Community Benefits

- Supported community funds / local projects from all our wind farms to date
- Currently producing a Community Benefit Strategy
- Committed to a community benefit fund for the local community who live in close proximity to the onshore substation

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19

## 8. Opportunities for local businesses and training

- Steering Group partnership with local authorities
- Identified 600 local businesses with capability to supply products/services
- Meet the Buyer Event, Amex, Feb 2014, attracted almost 300 suppliers
- Potential contractors encouraged to identify proposed UK & local suppliers
- [www.sussexwindenergy.org.uk](http://www.sussexwindenergy.org.uk) launched September 2013
- Local suppliers encouraged to register details on Suppliers Database
- Contracts already placed with local suppliers (met mast, geotech, survey and guard vessels, FIR, OFLO, PR, ecology, development manager)
- Employment Workforce Training Plan identifying skills gaps / develop courses
- Wind Turbine Maintenance Technician Apprenticeship Programme
- Support for Newhaven University Technical College



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20

## 9. Indicative project timetable

| YEAR | PERIOD  | MILESTONE  |
|------|---------|--|
| 2014 | July    | Consent decision awarded from Secretary of State (DECC)  |
|      | Autumn  | Final project design announced   |
|      | Ongoing | Finalise mitigation documents, work with appointed contractor & WSCC to discharge DCO requirements |
| 2015 | Q1      | First lead contractors appointed   |
|      | Spring  | Onshore construction expected to start   |
|      | Q4      | Operations Base construction expected to start   |
| 2016 | Q1      | Offshore construction expected to start  |
|      | Q3      | Operations Base expected to be complete  |
| 2017 | Q1      | First turbines start generating electricity  |
| 2018 | TBC     | Rampion fully commissioned & generating electricity  |



21

Thank you for listening



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22