



# Awel y Môr Offshore Wind Farm

## Category 6: Environmental Statement

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# UK Offshore Wind Farms and Local Seaside Tourism Economies – Employment Evidence

A Note by Hatch  
February 2022



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February 2022



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# Introduction

- 1.1 This report presents tourism sector-based employment data for seaside towns located within 30km of seven selected operational UK wind farms. The report presents data on employment in the tourism sector prior to the construction of the wind farm, during construction, and employment once the wind farm was fully commissioned. Thus, allowing a comparison of tourism employment prior to development of a wind farm compared to the period during which the wind farm was under construction and then fully operational.
- 1.2 The reason for undertaking this analysis is to provide supplementary evidence of tourism trends in close proximity to relevant UK offshore wind farms and hence to supplement the evidence examining the relationships between offshore wind farms and the tourism sector. This has helped to inform the Awel Y Môr ES chapter tourism impacts evidence base.

## Approach, limitations and caveats

- 1.3 A number of parameters were applied to the '4C offshore database of wind farm developments' in the UK in order to derive a list of offshore wind farms which were the most appropriate to the requirements of this research. The parameters used are listed below in Table 1.2. This long list of wind farms was further narrowed down to wind farms which were located near to well established seaside towns (within 30 km offshore and hence visible in good weather conditions). The seaside towns are based on a list published by the Office for National Statistics (ONS) of 108 seaside towns in England and Wales. The ONS define seaside towns as coastal towns with a tourist beach and associated visitor attractions rather than other coastal towns which are focused on other activities such as being a port town or a town with an industrial heritage.<sup>1</sup>
- 1.4 Tourism sector employment data was collected from the ONS Business Register and Employment Survey (BRES) at Lower Super Output Area (LSOA) level. LSOAs generally have populations of around 1,500 people. This allows for custom LSOA-based urban areas to be constructed based on ONS BUA/BUASD<sup>2</sup> areas for coastal towns within 30 km of the central point of the selected wind farms. The employment data is for full time employees (FTEs) which was estimated based on the assumption that 1 full time employee represents 1 FTE and 1 part time employee represents 0.5 FTEs<sup>3</sup>. The employment data is shown in Table 1.5 – Table 1.9.
- 1.5 The BRES data required for this level of analysis is available back to 2009. Therefore, a number of wind farms were omitted from the selection of wind farms included in the analysis due to a lack of employment data for the required time periods. Caution is also needed when comparing data from 2009-2014 as PAYE<sup>4</sup> based businesses were included in figures provided between 2015-2020<sup>5</sup>. This will therefore cause slight differences in the data. In addition, BRES data is not available for the UK and therefore Great Britain (GB) is used as a national comparator.
- 1.6 The definition of tourism used in this report is based on Standard Industrial Classification (SIC codes) defined by the United Nations World Tourism Organization (UNWTO) for tourism

<sup>1</sup> <https://www.ons.gov.uk/businessindustryandtrade/tourismindustry/articles/coastaltownsinenglandandwales/2020-10-06>.

<sup>2</sup> BUA = Build Up Area, BUASD = Build Up Area Subdivision.

<sup>3</sup> Total FTEs = Total full time employees + (0.5 \* part time employees)

<sup>4</sup> PAYE = Pay As You Earn

<sup>5</sup> Business Register and Employment Survey (BRES), 2016 Provisional and 2015 Revised Estimates Released, 2017, [REDACTED]

industries. Note that this definition is broader than the definition of the accommodation and food services sector. The definition is shown in Table 1.10.

- 1.7 The research does not assume the development of a wind farm is the only factor (or the most important factor) that causes changes in tourism and the associated business activity and the employment its supports. Changes will be influenced by longer term trends in domestic and international tourism, the investment and appeal of domestic destination, consumer tastes and fashions, the level of marketing and promotional activity for particular destinations, etc. The aim of this report is to identify whether there are any changes to tourism employment following the development of an offshore wind farm however it this research does not provide an assessment of the causation of the changes in tourism employment.

# UK Offshore Wind Farms

- 1.8 According to the 4C Offshore wind farm database, there are currently 40 fully commissioned and operational offshore wind farms in the UK (listed in Table 1.1). These vary in distance from the shore from 0.04km (Levenmouth demonstration turbine) to 120km (Hornsea One). 21 of these wind farms are located more than 10 kms from shore and 19 wind farms are located less than 10 kms from shore. It is important to note that this is actually fewer when an allowance is made for the extension of the existing wind farms.

**Table 1.1 Operational UK offshore wind farms**

Wind Farm	Region	Offshore Construction Start	Full Commissioning	Capacity MW (Max)	Distance From Shore (km)
Levenmouth demonstration turbine	Scotland, Forth and Tay	25-Sep-2013	01-Jan-2015	7	0.04
Teesside	England, North East	06-Feb-2012	16-Apr-2014	62.1	1.5
Scroby Sands	England, East of England	01-Oct-2003	14-Dec-2004	60	2.3
Aberdeen (EOWDC)	Scotland, North East	25-Jan-2018	25-Jul-2018	93.2	2.4
Lynn	England, East Midlands	01-Jan-2007	01-Mar-2009	97.2	5
Inner Dowsing	England, East Midlands	01-Jan-2007	01-Mar-2009	97.2	5
Blyth Offshore Demonstrator - phase 1	England, North East	11-Jul-2017	22-Jun-2018	41.5	5.7
Burbo Bank Extension	England, North West	06-Jun-2016	01-Apr-2017	254.2	6
Burbo Bank	England, North West	10-Jun-2006	18-Oct-2007	90	6.4
Gunfleet Sands	England, East of England	01-Apr-2008	15-Jun-2010	172.8	7
North Hoyle	Wales, North	03-Apr-2003	01-Jun-2004	60	7.2
Barrow	England, North West	01-May-2005	22-Sep-2006	90	7.5
Gunfleet Sands 3 - Demonstration Project	England, East of England	19-Sep-2012	12-Sep-2013	12	8
Lincs	England, East Midlands	10-Mar-2011	27-Sep-2013	270	8
Rhyl Flats	Wales, North	29-Apr-2008	02-Dec-2009	90	8
Westermoor Rough	England, Yorkshire & the Humber	21-Jan-2014	26-May-2015	210	8
Kentish Flats	England, South East	22-Aug-2004	01-Dec-2005	90	8.5
Kentish Flats Extension	England, South East	25-Apr-2015	02-Dec-2015	49.5	8.5
Ormonde	England, North West	29-Jul-2010	22-Feb-2012	150	9.5
Humber Gateway	England, Yorkshire & the Humber	19-Jul-2013	31-May-2015	219	10
Robin Rigg	Scotland, Solway	15-Sep-2007	15-Sep-2010	174	11
Thanet	England, South East	19-Mar-2009	23-Sep-2010	300	12
Rampion	England, South East	25-Jan-2016	30-Nov-2018	400.2	13
Beatrice	Scotland, North East	27-Mar-2017	31-May-2019	588	13.5
Walney - phase 1	England, North West	10-Mar-2010	12-Jul-2011	183.6	14
Walney - phase 2	England, North West	09-Apr-2011	14-Jun-2012	183.6	14
Kincardine - phase 1	Scotland, North East	22-Jul-2018	24-Oct-2018	2	15
Kincardine - phase 2	Scotland, North East	19-Jul-2020	23-Aug-2021	48	15
West of Duddon Sands	England, North West	30-Mar-2013	30-Oct-2014	389	15
Gwynt y Môr	Wales, North	08-May-2012	18-Jun-2015	576	16
Walney Extension	England, North West	02-Mar-2017	06-Sep-2018	659	19
London Array	England, South East	08-Mar-2011	06-Apr-2013	630	20
Sheringham Shoal	England, East of England	23-Oct-2009	19-Apr-2013	316.8	23
Hywind Scotland Pilot Park	Scotland, North East	22-Apr-2017	18-Oct-2017	30	25
Gallopier	England, East of England	07-Sep-2016	03-Apr-2018	353	27
Race Bank	England, East of England	01-May-2016	01-Feb-2018	573.3	27
Dudgeon	England, East of England	17-Mar-2016	04-Oct-2017	402	32
Greater Gabbard	England, East of England	01-Jul-2009	07-Aug-2013	504	36
East Anglia ONE	England, East of England	11-Apr-2018	27-Jul-2020	714	45.4
Hornsea Project One	England, Yorkshire & the Humber	23-Jan-2018	31-Dec-2019	1218	120

Source: 4C Offshore, 2021.



## Selected Wind Farms

- 1.9 The selection of wind farms included in the study is based on the distance to shore, size of the wind farm (in terms of installed capacity), construction and operational start date, and proximity to coastal tourism destinations. The following specific parameters were used to identify the wind farms used in this study:

Table 1.2 Parameters used to define the selected wind farms		
Variable	Parameter	Reason
Distance from shore	Less than 20 km	at more the 20km the wind farms visibility is dramatically reduced
Year Construction Started	Construction began in 2009 or later	detailed employment data for LSOAs is only available back to 2009

Source: ONS, BRES, 2021.

- 1.10 Using the parameters in the table above, several wind farms were assessed to see if there were any seaside towns within 30 km of the centre point of the wind farm, some of which had no nearby seaside towns in which the wind farm would be visible from. As such the following wind farms are not included in this research<sup>6</sup> for this reason:
- Beatrice OWF– the area is very remote and there are no towns within 30 km which support significant amounts of tourism activity.
  - Walney phase 1 and phase 2, West of Duddon Sands and Ormonde OWFs– Fleetwood and Morecambe are the nearest seaside town (of which only the latter has a significant tourism sector) but the wind farms are more than 30km from these towns.
- 1.11 Gunfleet Sands 3 - Demonstration Project has been excluded from the analysis. The Non-Technical Summary for that project stated that for socio-economics and tourism “the socio-economic effects are likely to be small”<sup>7</sup> and the fact the wind farm has just 2 6MW turbines located 8km from shore and so the visual impacts are not comparable to the potential visual impacts of Awel y Môr. Levenmouth and Kincadrine were excluded for similar reasons. London Array was also excluded as it was felt other wind farms within reasonably close proximity would have a greater potential for impact on coastal tourism whilst Burbo Bank extension was excluded as it was felt the nearby wind farm of Gwynt y Môr (GyM) is a more insightful case study with Burbo Bank extension unlikely to provide any meaningful difference in the data.
- 1.12 However, there are several wind farms which fit the parameters set out in the table above and have seaside towns within 30 km of the wind farm, which are visible from the wind farm.
- GyM
  - Humber Gateway
  - Westernmost Rough
  - Lincs
  - Rampion I

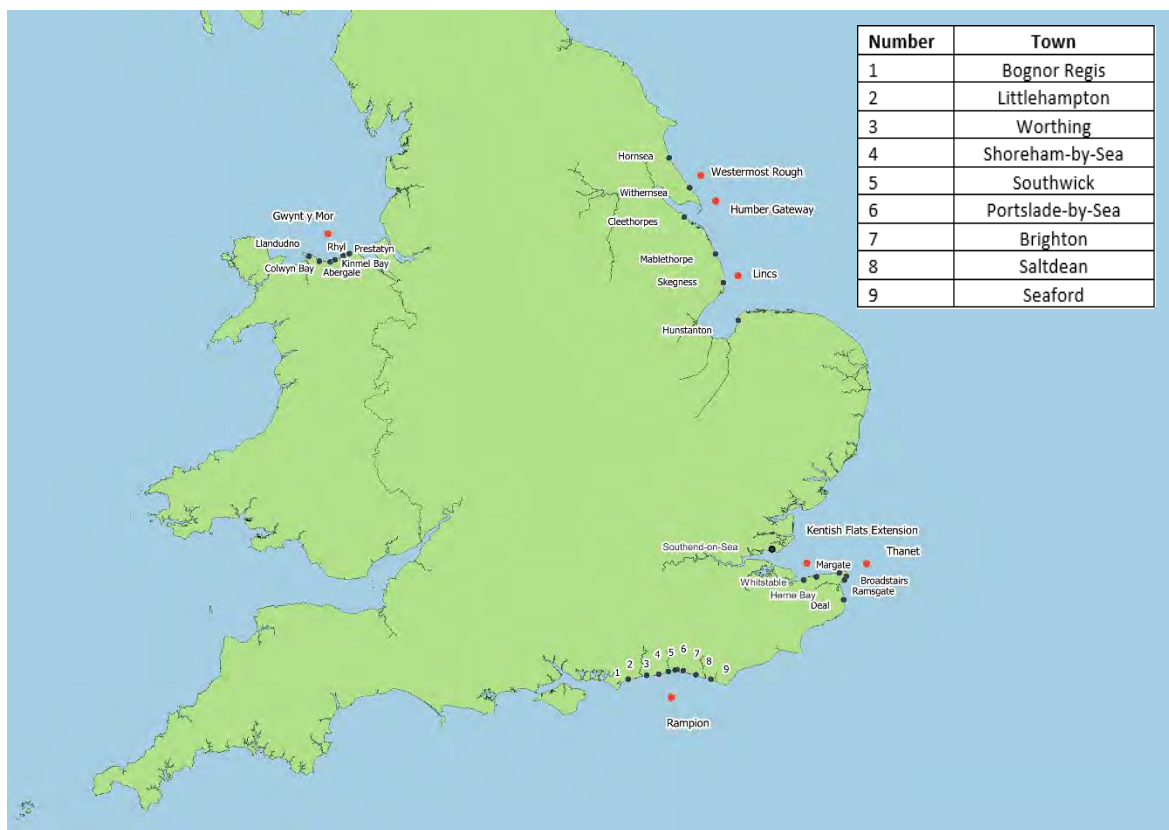
<sup>6</sup> Seaside towns are defined by ONS for England and Wales in the following link <https://www.ons.gov.uk/businessindustryandtrade/tourismindustry/articles/coastaltownsineEnglandandWales/2020-10-06>. Desk based research has been used to identify Seaside Towns in Scotland.

<sup>7</sup> [REDACTED] - Note that the ES chapter is not publicly available.

- Thanet
- Kentish Flats Extension.

- 1.13 The map below shows the location of the wind farms used in this research and proximity to coastal seaside towns located within 30km of the central point of the wind farm.
- 1.14 Although several wind farms such as Rhyl Flats (constructed 2007, distance from shore 11km) and Robin Rigg (constructed 2008, distance from shore 11km) fit the parameters for distance from shore, due to limited data available back to 2009 it is not possible to provide analysis for these wind farm's preconstruction and construction phases.

Figure 1.1 Proximity of seaside towns to selected wind farms.



Hatch, 2022.

## Comparison of seaside towns to Llandudno

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- 1.15 Llandudno is the largest holiday resort in Wales and is uniquely situated between the Great and Little Ormes with two beaches, the iconic North Shore, with its sweeping bay and the quiet, sand-duned West Shore.
- 1.16 Llandudno has been referred to as the “Queen of the Welsh Resorts”, as it is the biggest seaside resort town in Wales. It is characterised by its long promenade which is overlooked by rows of Victorian buildings that make up the South Parade and its pier. Llandudno’s Promenade is one of Europe’s longest urban promenades. The nearly mile-long prom was built between 1858 and 1863. It winds its way from the Great Orme to the Little Orme, past cafes, restaurants, shops and even an aquarium. There are also many opportunities for scenic photographs of sweeping views of the Irish Sea <sup>8</sup>.
- 1.17 A number of other seaside towns included this analysis also share Llandudno’s Victorian characteristics in terms of the period the towns were developed and grew, including its architecture and tourism attraction. These towns include:
- Brighton and Worthing
  - Withernsea, Mablethorpe, Cleethorpes and Skegness
  - Herne Bay, Broadstairs, Margate and Deal.
- 1.18 A number of these seaside resorts have developed into more significant economic centres and have become less dependent on seaside tourism than Llandudno is today. A number of the Victorian seaside towns, such as Brighton and Worthing, have been influenced by their proximity to London and a significant commuting population. These centres are therefore far more diverse and less dependent on seaside related tourism.

<sup>8</sup> [10 Awesome Things to do in Llandudno - Llandudno.com](https://www.llandudno.com/10-awesome-things-to-do-in-llandudno/)

## Findings for each Offshore Wind Farm

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- 1.20 This section presents tourism employment trends for the seaside towns and districts within 30 km of the centre of each wind farm, as well as regional and national comparators.

### Gwynt y Môr

- GyM is a 576 MW offshore wind farm located 16 km off the coast of North Wales and is one of the largest operating offshore windfarms in the world.
  - GyM began construction in 2012 and was fully commissioned by 2015. This was the longest construction period of any of the wind farms analysed in this note.
- 1.21 Six seaside towns sit within 30kms from the centre of the wind farm:
- Llandudno
  - Colwyn Bay
  - Abergele
  - Rhyl
  - Kinmel Bay, and
  - Prestatyn.

Figure 1.2 Image of GyM from the North Wales Coast



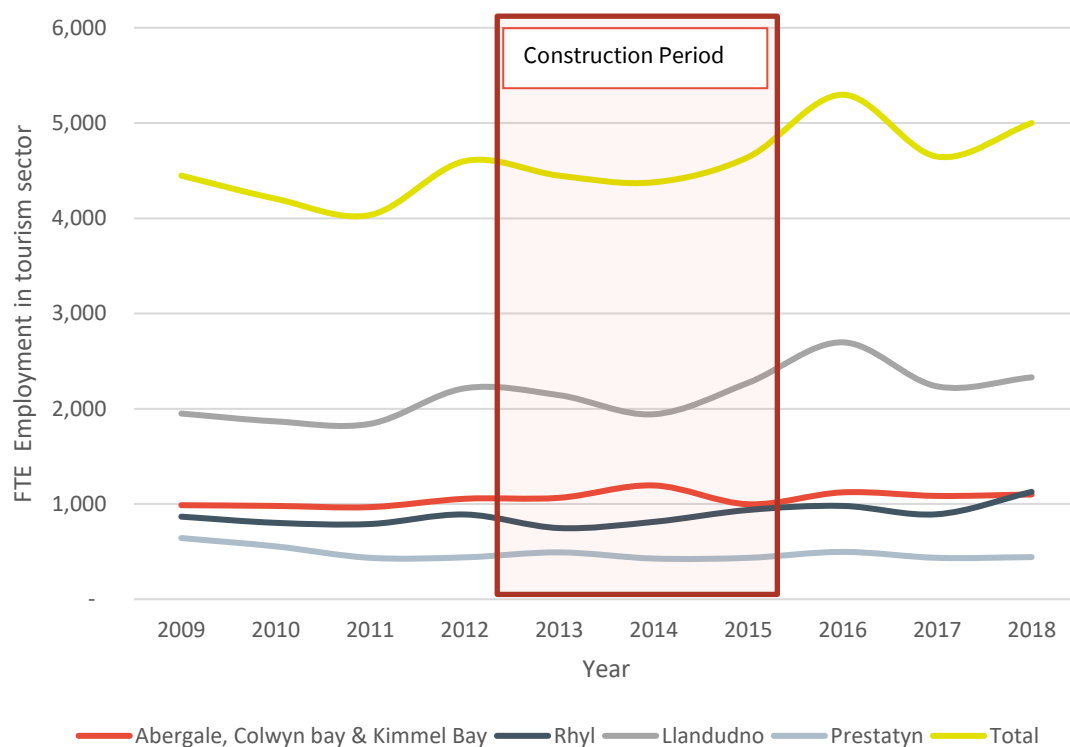
Source [Gwynt y Mor wind farm, North Wales coast. | OLYMPUS DIGITAL ... | Flickr](#)

### Tourism Employment Trends

- 1.22 Table 1.4 and Figure 1.3 show tourism employment trends across the three years prior to construction of GyM, the construction period of the wind farm and the operational period in the three years post construction.

- 1.23 It should be noted that two other wind farms are located in close proximity to GyM, off the North Wales coast, North Hoyle (60MW wind farm) and Rhyl Flats (90MW wind farm). These wind farms began construction in 2003 and 2008 respectively.
- 1.24 When totalled across the six North Wales seaside towns, tourism employment was higher in the construction (4,500 FTE jobs) and operational period (5,000 FTE jobs) compared to the pre-construction period (4,200 FTE jobs).
- 1.25 Llandudno has significantly higher tourism employment compared to the other towns, it is the largest of the seaside towns, and the town that was most likely to be at risk of negative impacts on tourism from development of GyM due to the characteristics of the town, the proximity to GyM and its more elderly visitor demographic. Llandudno saw a steady increase in tourism employment from average employment levels below 2,000 per annum preconstruction to average employment levels of around 2,400 post construction.
- 1.26 Figure 1.3 shows general growth in tourism from 2008 to 2018 with a number of variations in employment that may be explained by a wide range of factors such as the weather, the performance of the wider economy and the closure or opening of specific business premises in the local area.

Figure 1.3 Tourism Employment Trend of North Wales seaside towns within 30km of GyM



Source: ONS, BRES, 2021.

- 1.27 The data in Table 1.3 shows that the tourism employment trends presented above are similar to both local district, Welsh and British tourism employment trends.
- 1.28 Tourism employment in the nearby seaside towns increased by 7% when comparing average employment levels in the preconstruction period to the construction period. This was slightly higher than the growth seen in local districts (6%) but slightly lower than Welsh and British growth rates (8%). It should be noted that Llandudno, which is the most sensitive area in terms

of impact on tourism in North Wales from construction of GyM, saw higher growth than average with tourism employment 14% higher during the construction period than in the period prior to construction.

- 1.29 Tourism employment in the nearby seaside towns increased by 18% when comparing average employment levels in the preconstruction period to the post completion period. This was equal to the growth seen in local districts but slightly lower than Welsh and British growth rates (19% and 20% respectively). As above, Llandudno saw higher growth than average, with tourism employment 25% higher during the post completion period than in the period prior to construction.

Type of Area	Area	Employment up to last year prior to construction commencing – 2009-11	Employment from construction start to full commissioning – 2012-15	% Change from preconstruction employment to construction employment	Post completion employment during 2016-18	% Change from preconstruction employment to post completion employment
Towns (within 30 km of central point of Humber Gateway / Westermest Rough)	Llandudno	1.9	2.1	15%	2.4	25%
	Colwyn Bay	0.7	0.7	6%	0.7	-3%
	Abergale	0.1	0.2	25%	0.2	67%
	Rhyl	0.8	0.8	3%	1.0	22%
	Kinmel Bay	0.2	0.2	14%	0.3	28%
	Prestatyn	0.5	0.4	-18%	0.5	-16%
	<b>Total</b>	<b>4.2</b>	<b>4.5</b>	<b>7%</b>	<b>5.0</b>	<b>18%</b>
Districts (within 30 km Humber Gateway / Westermest Rough)	Conwy	5.1	5.4	7%	6.0	18%
	Denbigshire	3.0	3.0	1%	3.3	11%
	Flintshire	3.3	3.5	8%	4.0	23%
	<b>Total</b>	<b>11.3</b>	<b>12.0</b>	<b>6%</b>	<b>13.3</b>	<b>18%</b>
Region	<b>Wales</b>	<b>82.0</b>	<b>88.8</b>	<b>8%</b>	<b>97.3</b>	<b>19%</b>
National	<b>GB</b>	<b>1,939</b>	<b>2,086</b>	<b>8%</b>	<b>2,328</b>	<b>20%</b>

Source: ONS, BRES, 2021.

## Humber Gateway & Westernmost Rough

- Humber Gateway and Westernmost Rough are located in the North Sea and sit less than 20 km from each other off the Holderness coast. Westernmost Rough lies to the north of Humber Gateway.
- Humber Gateway sits 10km offshore and Westernmost Rough sits 8km offshore.
- Humber Gateway began construction in 2013 and Westernmost Rough began construction in early 2014, both projects were fully commissioned by 2015.
- Humber Gateway has a maximum capacity of 219 MW whilst Westernmost Rough has a slightly lower maximum capacity of 210MW.

1.30 Three seaside towns sit within 30km from the centre of the wind farms:

- Withernsea,
- Cleethorpes, and
- Hornsea<sup>9</sup>.

Figure 1.4 Image of Westernmost Rough from Withernsea



Source [Withernsea From Above \(withernsea1.co.uk\)](http://withernsea1.co.uk)

## Tourism Employment Trends

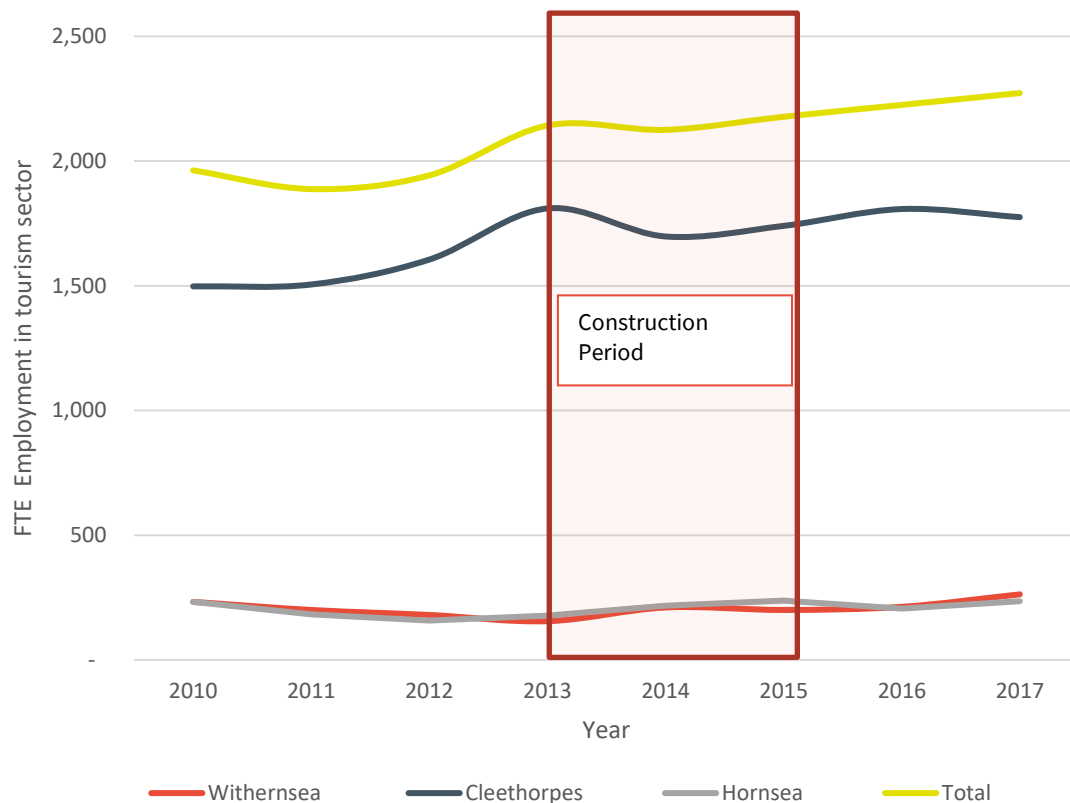
1.31 Figure 1.35 shows tourism employment trends across the three years prior to construction of Humber Gateway and Westernmost Rough wind farms, the construction period of the wind farms and the operational period in the three years post construction.

<sup>9</sup> Please note that Hornsea is within 30km of Westernmost Rough but not Humber Gateway and Westernmost Rough is not visible from Cleethorpes.



- 1.32 When totalled across the three seaside towns, tourism employment was higher in the construction period (2,100 FTE jobs) and operational period (2,200FTE jobs) compared to the pre-construction period (1,900 FTE jobs).
- 1.33 The data shows general growth in tourism from 2010 to 2017. Cleethorpes has significantly higher tourism employment compared to the other towns, it is the largest of the seaside towns, and the town that was most likely to be at risk of negative impacts on tourism from development of Humber Gateway and Westernmost Rough due to its proximity to the characteristics of the town. Cleethorpes saw a steady increase in tourism employment from average employment levels below 1,500 per annum preconstruction to average employment levels of around 1,700 post construction.

Figure 1.5 Tourism Employment Trend of seaside towns within 30km of Humber Gateway & Westernmost Rough



Source: ONS, BRES, 2021.

- 1.34 The data in Table 1.4 shows that the tourism employment trends presented above are similar to both local district, regional, and British tourism employment trends.
- 1.35 Tourism employment in the nearby seaside towns increased by 11% when comparing average employment levels in the preconstruction period to the construction period. This was higher than the growth seen in local districts (6%) and the regional (9%) and British growth rates (8%). It should be noted that Cleethorpes, which is likely to be the most sensitive area in terms of impact on tourism in Yorkshire and the Humber from construction of Humber Gateway and Westernmost Rough, saw higher growth than average with tourism employment 14% higher during the construction period than in the period prior to construction.



- 1.36 Tourism employment in the nearby seaside towns increased by 15% when comparing average employment levels in the preconstruction period to the post completion period. This was similar to the growth seen in local districts and Great Britain (both 16%) and above the regional growth rate (12%). Cleethorpes equalled the local districts and Great British averages, with tourism employment 16% higher during the post completion period than in the period prior to construction.

**Table 1.4 Tourism Employment Change – Humber Gateway & Westmost Rough (FTE 000s)**

Type of Area	Area	Employment up to last year prior to construction commencing – 2010-12	Employment from construction start to full commissioning – 2013-15	% Change from preconstruction employment to construction employment	Post completion employment during 2015-17	% Change from preconstruction employment to post completion employment
Towns (within 30 km of central point of Humber Gateway / Westmost Rough)	Withernsea	0.2	0.2	-8%	0.2	10%
	Cleethorpes	1.5	1.7	14%	1.7	16%
	Hornsea	0.2	0.2	10%	0.2	18%
	<b>Total</b>	<b>1.9</b>	<b>2.1</b>	<b>11%</b>	<b>2.2</b>	<b>15%</b>
Districts (within 30 km Humber Gateway / Westmost Rough)	East Riding of Yorkshire	7.3	7.8	7%	8.7	18%
	North East Lincolnshire	3.8	3.9	4%	3.8	2%
	East Lindsey	6.0	6.3	6%	7.2	21%
	<b>Total</b>	<b>17.1</b>	<b>18.1</b>	<b>6%</b>	<b>19.8</b>	<b>16%</b>
Region	<b>Yorkshire &amp; the Humber</b>	<b>138.8</b>	<b>151.7</b>	<b>9%</b>	<b>155.5</b>	<b>12%</b>
National	<b>GB</b>	<b>1,958</b>	<b>2,121</b>	<b>8%</b>	<b>2,277</b>	<b>16%</b>

Source: ONS, BRES, 2021.

## Lincs

- Lincs Wind Farm is located in the North Sea and sits 8km off Skegness on the east coast. The wind farm is adjacent to the smaller Lynn and Inner Dowsing Wind Farms (both wind farms began offshore construction 2007 and were fully commissioned in 2009 and are located just 5km offshore).
- Lincs began construction in 2011 and was fully commissioned by 2013.
- The max capacity of the wind farm is 270 MW.

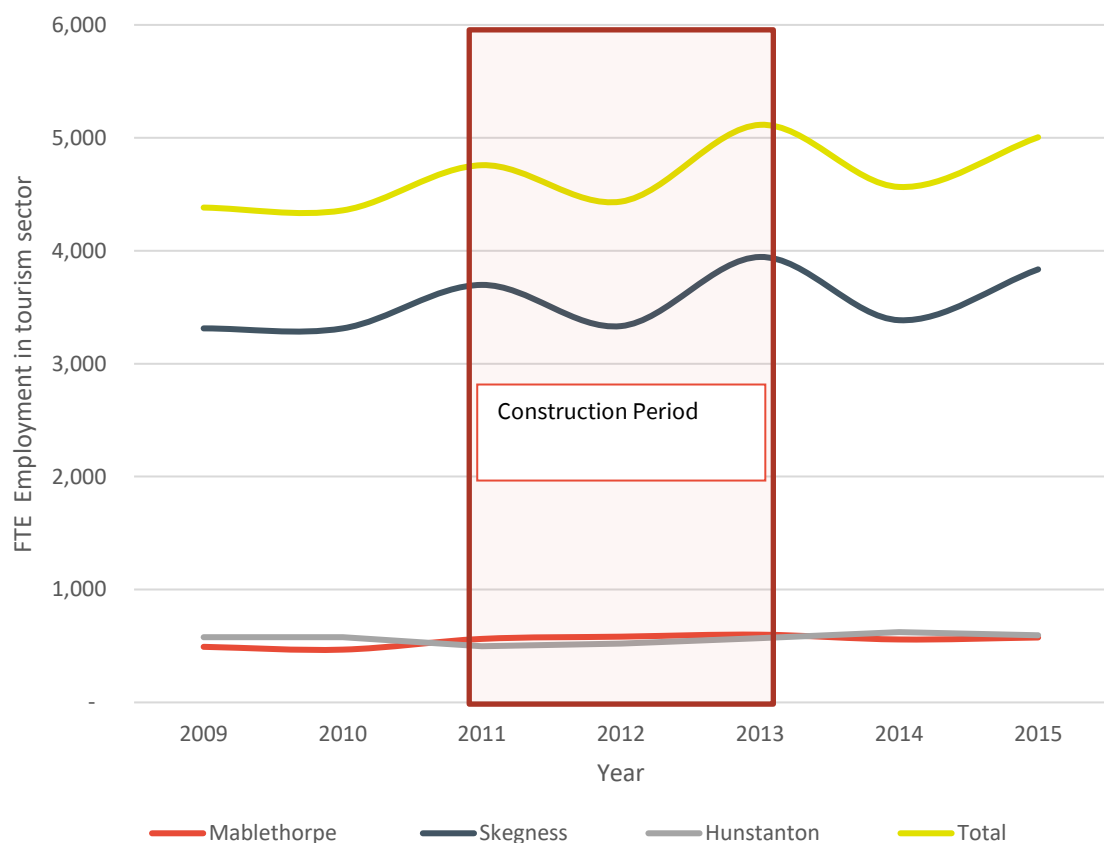
## Seaside Towns

- Mablethorpe
- Skegness
- Hunstanton

## Tourism Employment Trends

- 1.37 Figure 1.6 shows how tourism employment has changed across the three years prior to construction of Lincs wind farm, the construction period of the wind farm and the operational period in the three years post construction. It should be noted that of the seaside towns considered Mablethorpe has significantly higher tourism employment compared to Skegness and Hunstanton. The data shows general growth in tourism from 2009 to 2015, across the area with Skegness accounting for most of this growth.
- 1.38 When totalled across the three seaside towns, tourism employment was higher in the construction (4,800 FTE jobs) and operational period (4,900 FTE jobs) compared to the pre-construction period (4,500 FTE jobs).
- 1.39 Skegness is likely to be the town that was most at risk of negative impacts on tourism from development of Lincs windfarm due to its more traditional Victorian seaside town characteristics and proximity to the wind farm. Skegness saw a steady increase in tourism employment from average employment levels below 3,400 per annum preconstruction to average employment levels of around 3,700 post construction.

Figure 1.6 Tourism Employment Trend of seaside towns within 30km of Lincs



Source: ONS, BRES, 2021.

- 1.40 The data in Table 1.5 shows that the tourism employment trends presented above are similar to both local district and British tourism employment trends, and growth exceeds the regional average.

- 1.41 Tourism employment in the nearby seaside towns increased by 6% when comparing average employment levels in the preconstruction period to the construction period. This was higher than the growth seen in local districts (5%) and the regional (-1%) and British growth rates (3%). It should be noted that Skegness and Mablethorpe, which are likely to be the most sensitive areas in terms of impact on tourism in the East Midlands from construction of the Lincs Wind Farm, saw higher growth than average growth rates in the local districts, East Midlands and in Britain, with tourism employment 6% and 15% higher respectively during the construction period than in the period prior to construction.
- 1.42 Tourism employment in the nearby seaside towns increased by 9% when comparing average employment levels in the preconstruction period to the post completion period. This equalled the growth seen in local districts and Great Britain (both also 9%) and was much greater than the regional growth rate (2%). Skegness was just below the local districts and Great British averages, with tourism employment 8% higher during the post completion period than in the period prior to construction whereas Mablethorpe experienced 14% growth during this period.

**Table 1.5 Tourism Employment Change – Lincs FTE (000s)**

Type of Area	Area	Employment up to last year prior to construction commencing – 2009-11	Employment from construction start to full commissioning – 2013-15	% Change from preconstruction employment to construction employment	Post completion employment during 2015-17	% Change from preconstruction employment to post completion employment
Towns (within 30 km of central point of Lincs)	Mablethorpe	0.5	0.6	15%	0.6	14%
	Skegness	3.4	3.7	6%	3.7	8%
	Hunstanton	0.6	0.5	-4%	0.6	8%
	<b>Total</b>	<b>4.5</b>	<b>4.8</b>	<b>6%</b>	<b>4.9</b>	<b>9%</b>
Districts (within 30 km of central point of Lincs)	East Lindsay	5.9	6.4	8%	6.3	7%
	Boston	1.2	1.2	-1%	1.1	-1%
	Kings Lynn and West Norfolk	3.3	3.3	3%	3.8	15%
	<b>Total</b>	<b>10.3</b>	<b>10.9</b>	<b>5%</b>	<b>11.2</b>	<b>9%</b>
Region	<b>East Midlands</b>	<b>114.7</b>	<b>113.3</b>	<b>-1%</b>	<b>116.7</b>	<b>2%</b>
National	<b>GB</b>	<b>1,938</b>	<b>1,997</b>	<b>3%</b>	<b>2,121</b>	<b>9%</b>

Source: ONS, BRES, 2021.

## Rampion

- Rampion Wind Farm is located 13km off of the South coast.
- Rampion began construction in 2016 and was fully commissioned by 2018.
- The max capacity of the wind farm is 270 MW.

## Seaside Towns

- Bognor Regis
- Brighton
- Littlehampton
- Portslade-by-Sea
- Saltdean
- Seaford
- Shoreham-by-Sea
- Southwick
- Worthing.

Figure 1.7 Rampion from the Sussex Coast



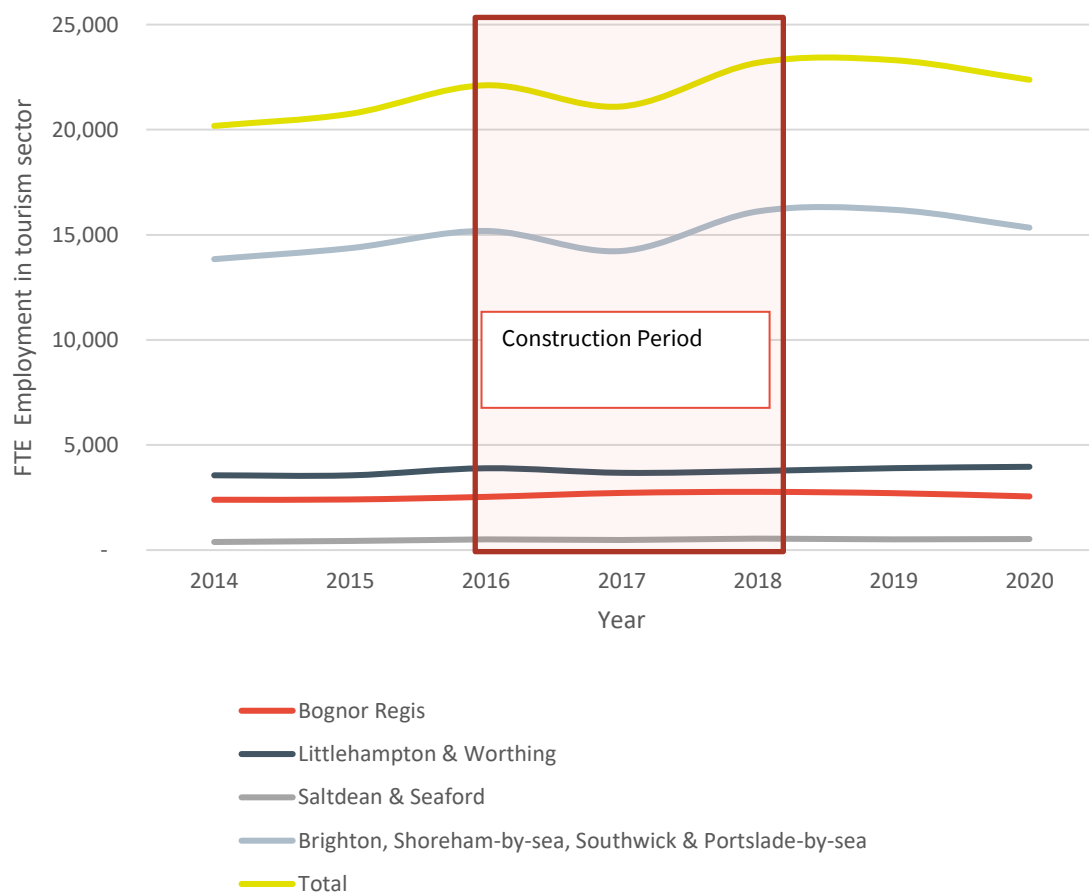
Source:




### Tourism Employment Trends

- 1.43 Table 1.68 shows how tourism employment changed across the three years prior to construction of Rampion, the construction period of the wind farm and the operational period in the three years post construction.
- 1.44 When totalled across the nine seaside towns, tourism employment was higher in the construction (22,100 FTE jobs) and operational period (23,000 FTE jobs) compared to the pre-construction period (21,000 FTE jobs).
- 1.45 Brighton has significantly higher tourism employment compared to the other towns, it is the largest of the seaside towns, and along with Worthing are the towns that are likely to be the most at risk of negative impacts on tourism from development of Rampion. Brighton saw a steady increase in tourism employment from average employment levels of 13,100 per annum preconstruction to average employment levels of around 14,100 post construction and Worthing experienced and equivalent growth rate.

Figure 1.8 Tourism Employment Trend of seaside towns within 30km of Rampion



Source: ONS, BRES, 2021

- 1.46 The data in Table 1.6 shows that the tourism employment trends presented above are greater than local district, regional, and British tourism employment trends.
- 1.47 Tourism employment in the nearby seaside towns increased by 5% when comparing average employment levels in the preconstruction period to the construction period. This was higher than the growth seen in local districts (2%) and the region (2%) and equalled British growth rates (5%). Brighton, which is the most sensitive area in terms of impact on tourism in the South East from construction of the Rampion Wind Farm, saw slightly lower than average growth than in the local districts and in Britain, with tourism employment 3% higher during the construction period than in the period prior to construction.
- 1.48 Tourism employment in the nearby seaside towns increased by 9% when comparing average employment levels in the preconstruction period to the post completion period. This was above the growth in local districts (5%), the region (4%) and Great Britain (5%). Brighton was just below the local districts and Great British averages, with tourism employment 8% higher during the post completion period than in the period prior to construction.

Type of Area	Area	Employment up to last year prior to construction commencing – 2014-16	Employment from construction start to full commissioning – 2016-18	% Change from preconstruction employment to construction employment	Post completion employment during 2018-20	% Change from preconstruction employment to post completion employment
Towns (within 30 km of central point of Rampion)	Bognor Regis	2.5	2.7	9%	2.7	9%
	Littlehampton	1.0	1.0	-1%	1.0	0%
	Shoreham-by-sea	1.0	1.2	22%	1.3	30%
	Southwick	0.2	0.2	0%	0.2	-8%
	Portslade-by-sea	0.2	0.3	30%	0.3	43%
	Saltdean	0.1	0.1	9%	0.2	21%
	Seaford	0.3	0.4	20%	0.4	19%
	Worthing* (BUASD)	2.7	2.8	4%	2.9	8%
	Brighton* (BUASD)	13.1	13.5	3%	14.1	8%
	<b>Total</b>	<b>21.0</b>	<b>22.1</b>	<b>5%</b>	<b>23.0</b>	<b>9%</b>
Districts (within 30 km of central point of Rampion)	Adur	1.3	1.5	19%	1.6	24%
	Arun	5.5	5.6	0%	5.7	3%
	Brighton and Hove	15.2	15.8	4%	16.5	9%
	Lewes	3.5	2.9	-16%	2,833	-18%
	Worthing	2.8	3.0	8%	2,875	5%
	<b>Total</b>	<b>28.2</b>	<b>28.7</b>	<b>2%</b>	<b>29,467</b>	<b>5%</b>
Region	South East	317.8	326.0	2%	329,667	4%
National	GB	2,213	2,328	5%	2,220	5%

Source: ONS, BRES, 2021. \*Please note that the seaside towns Brighton and Worthing are based on the ONS BUASD areas and are therefore smaller than the Brighton and Hove and Worthing District Areas.

## Thanet

- Thanet is located in the North Sea just under 16km from Broadstairs. Thanet lies east of Broadstairs, Margate (18km) and Ramsgate(19km). Deal lies South East of Thanet (28km).
- Thanet sits 12km offshore.
- Thanet began construction in 2009. The project was fully commissioned by 2010.
- Thanet has a max capacity of 300 MW.

### Seaside Towns

- Broadstairs
- Margate
- Deal
- Ramsgate

Figure 1.9 Thanet OWF from Broadstairs Viking Bay



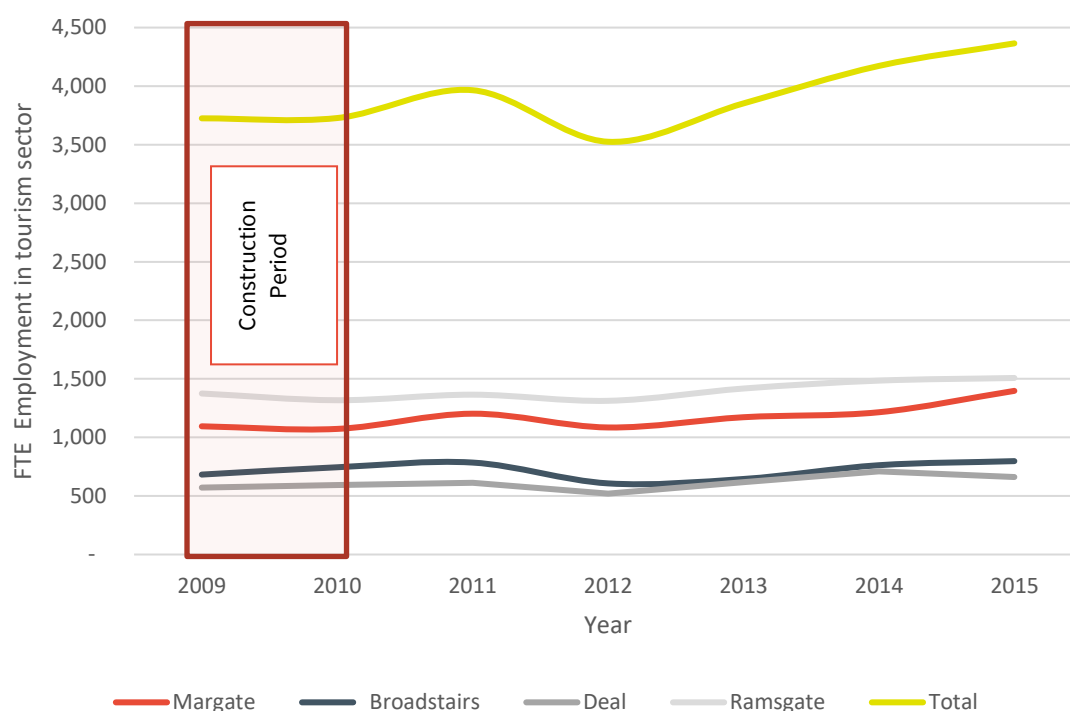
Source: [Broadstairs Viking Bay - Photo "Thanet Wind Farm lined up" :: British Beaches](#)

### Tourism Employment Trends

- 1.49 Figure 1.10 shows tourism employment trends across the construction period of the wind farm and the operational period in the three years post construction. of Thanet wind farm. The earliest data set available is from 2009. Construction of Thanet wind farm began in 2009 therefore, it was not possible to provide analysis of data prior to construction which would have been the period 2006-08.

- 1.50 When totalled across the four seaside towns, tourism employment was higher in the post-financial crisis period (3,400 FTE jobs) and the post-completion period (3,200 FTE jobs) compared to the construction period (3,100 FTE jobs).
- 1.51 Deal and Margate the towns that are most likely to be at risk of negative impacts on tourism from development of the Thanet Wind Farm. Margate recorded increased tourism employment from construction through to post financial crisis, whereas Deal did not.
- 1.52 Figure 1.10 shows general growth in tourism across the area from 2009 to 2015. There is a dip in employment during the post-completion period, in line with the financial crisis, after which total tourism employment in the area has increased to above pre-financial crisis levels.

**Figure 1.10 Tourism Employment Trend of seaside towns within 30km of Thanet**



Source: ONS, BRES, 2021. Due to limited data back dating to 2009 it was not possible to collect data for the preconstruction period as construction began in 2009.

- 1.53 The data in Table 1.7 shows that growth in tourism in the local towns has been in line with tourism trends in the local district, but slightly below regional and British growth.
- 1.54 Tourism employment in the nearby seaside towns increased by just 1% when comparing average employment levels in the construction to commissioning period to the post-completion period. This is slightly below the growth seen in local districts (3%), the region (5%) and Britain (2%). Slow growth across all geographies suggests this is likely due to the effects of the financial crisis.
- 1.55 Tourism employment in the nearby seaside towns increased by 7% when comparing average employment levels in the construction to full commissioning period to the post financial crisis period. This is in line with the local districts (7%), and Britain (8%), and slightly below the regional average of 10%. Margate recorded growth above these averages with a 12% employment growth rate from the construction to full commissioning period to the post financial crisis period.

**Table 1.7 Tourism Employment Change – Thanet (FTE 000s)**



Type of Area	Area	Employment from construction start to full commissioning – 2009-10	Post completion employment during 2010-12	% Change from construction start to full commissioning to post completion employment	Post Financial Crisis during 2012-2015	% Change from construction start to full commissioning to post financial crisis
Towns (within 30 km of central point of Thanet)	Margate	1.1	1.1	3%	1.2	12%
	Broadstairs	0.7	0.7	0%	0.7	-1%
	Deal	0.6	0.6	0%	0.6	0%
	Ramsgate	1.3	1.3	-1%	1.4	6%
	<b>Total</b>	<b>3.1</b>	<b>3.2</b>	<b>1%</b>	<b>3.4</b>	<b>7%</b>
Districts (within 30 km of central point of Thanet)	Dover	3.4	3.5	2%	3.5	5%
	Thanet	3.3	3.5	4%	3.6	9%
	<b>Total</b>	<b>6.7</b>	<b>7.0</b>	<b>3%</b>	<b>7.2</b>	<b>7%</b>
Region	South East	273	285	5%	301	10%
National	GB	1,927	1,958	2%	2,086	8%

Source: ONS, BRES, 2021. Due to limited data back dating to 2009 it was not possible to collect data for the preconstruction period as construction began in 2009.

## Kentish Flats Extension

- Kentish Flats Extension is located in the North Sea just under 9km from Herne Bay. The Kentish Flats Extension lies South of Herne Bay, Whitstable (14km), Margate (22km), and Southend - on - Sea (26km).
- Kentish Flats Extension is under 9km offshore.
- Kentish Flats Extension began construction in 2015 and the project was fully commissioned the same year.
- Kentish Flats Extension has a max capacity of 50 MW.

### Seaside Towns within a 30km distance

- Herne Bay
- Whitstable
- Margate
- Southend - on - Sea

Figure 1.11 Kentish Flats Extension



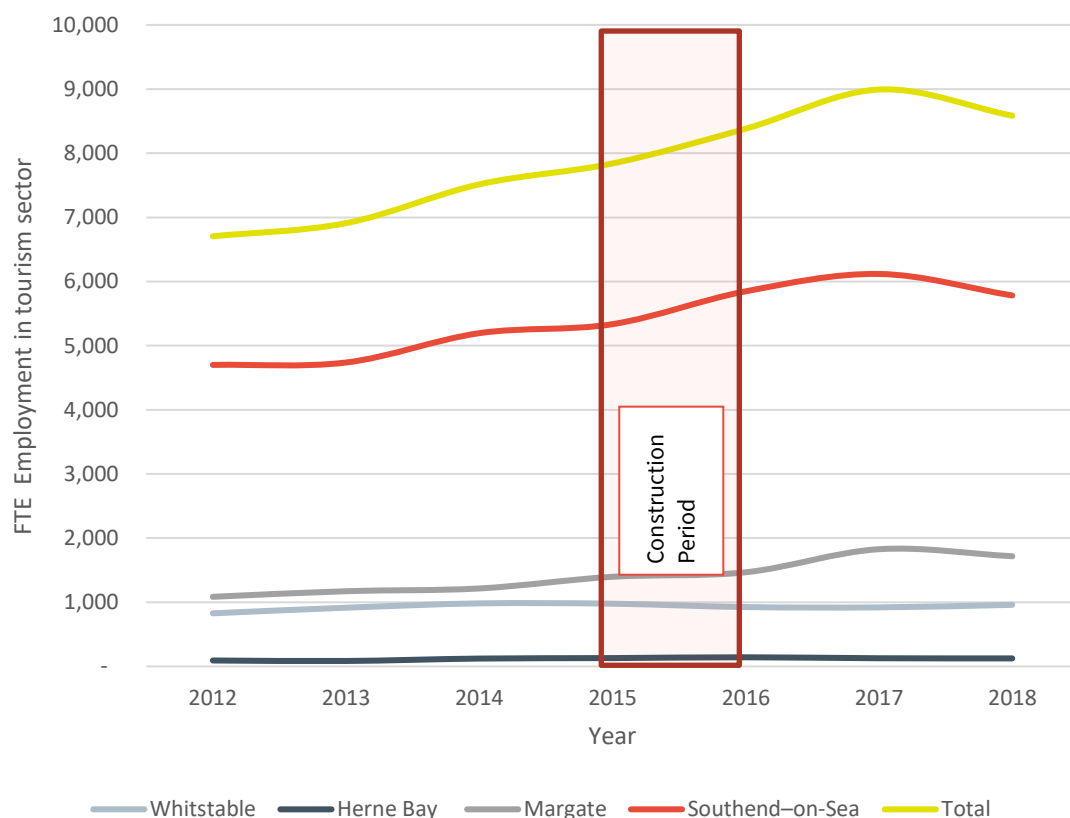
Source: [Kentish Flats Extension Offshore Wind Farm](#) | Photographer: R... | Flickr

- 1.56 Although Ramsgate and Broadstairs are within a 30km distance of Kentish Flats Extension wind farm, the wind farm would not be visible due to the positioning of these seaside towns. The seaside towns are positioned South of the wind farm under Margate meaning the wind farm would not be visible from the coast lines of both towns.

## Tourism Employment Trends

- 1.57 Figure 1.12 shows tourism employment trends across the three years prior to construction of Kentish Flats Extension, the construction period of the wind farm and the operational period in the three years post construction. It should be noted that of the seaside towns considered Southend-on-Sea has significantly higher tourism employment compared to Margate and Herne Bay and Whitstable. Due to the extension of Kentish flats being constructed within a year, there was no change in Tourism employment during the construction period.
- 1.58 When totalled across the four seaside towns, tourism employment was higher in the construction period (7,800 FTE jobs) and operational period (8,700 FTE jobs) compared to the pre-construction period (7,000 FTE jobs).
- 1.59 Figure 1.12 shows general growth in tourism across the area from 2012 to 2018. Southend-on-Sea is largely driving this growth. There is a slight dip in employment from 2017 to 2018, which may be explained by a wider range of external factors, such as the weather, the performance of the wider economy and the closure or opening of specific business premises in the local area.

Figure 1.12 Tourism Employment Trend of seaside towns within 30km of Kentish Flats Extension



Source: ONS, BRES, 2021.

- 1.60 The data in Table 1.8 shows that the tourism employment trends presented above are greater than local district, regional, and British tourism employment trends.
- 1.61 Tourism employment in the nearby seaside towns increased by 11% when comparing average employment levels in the preconstruction period to the construction period. This was slightly

higher than the growth seen in local districts (10%), the region (8%) and the British growth rate (8%).

- 1.62 Tourism employment in the nearby seaside towns increased by 23% when comparing average employment levels in the preconstruction period to the post completion period. This was above the growth in local districts (19%), the region (10%) and Great Britain (14%). Herne Bay and Margate are likely to be the towns that was most likely to be at risk of negative impacts on tourism from development of the Kentish Flats Extension due to the characteristics of these more traditional Victorian seaside towns. Herne Bay and Margate both saw higher than average growth rates in tourism over the pre-construction to post construction period.

Table 1.8 Kentish Flats Extension						
Type of Area	Area	Employment up to last year prior to construction commencing – 2012-14	Employment from construction start to full commissioning – 2015	% Change from preconstruction employment to construction employment	Post completion employment during 2016-18	% Change from preconstruction employment to post completion employment
Towns (within 30 km of central point of the Kentish Flats)	Whitstable	0.9	1.0	8%	0.9	3%
	Herne Bay	0.1	0.1	30%	0.1	32%
	Margate	1.2	1.4	21%	1.7	21%
	Southend-on-Sea	4.9	5.3	9%	5.9	21%
	<b>Total</b>	<b>7.0</b>	<b>7.8</b>	<b>11%</b>	<b>8.7</b>	<b>23%</b>
Districts (within 30 km of central point of the Kentish Flats)	Canterbury	4.6	5.3	15%	5.5	20%
	Thanet	3.5	4.0	14%	4.7	33%
	Medway	5.6	5.8	3%	5.8	4%
	Rochford	1.2	1.6	5%	1.9	24%
	Maldon	1.3	1.5	17%	1.6	22%
	Southend – on - Sea	4.5	5.0	11%	5.6	24%
	Swale	2.8	3.1	12%	3.3	16%
	<b>Total</b>	<b>23.8</b>	<b>26.3</b>	<b>10%</b>	<b>28.4</b>	<b>19%</b>
Region	South East	295	318	8%	326	10%
National	GB	2047	2206	8%	2328	14%

Source: ONS, BRES, 2021.

## Summary of findings

- 1.63 Table 1.9 shows the aggregated employment trend totals across the six selected wind farms. Please note that the development periods cover different years for each windfarm.
- 1.64 Overall tourism employment in the seaside towns nearby to the selected wind farms from prior to construction and post completion showed largely positive tourism employment growth, with Kentish Flats Extension seaside towns recording the largest increase at 23%. The employment growth in the seaside towns of each wind farm were generally broadly in line or above regional and national trends.

Table 1.9 Summary of Tourism Employment Change

Wind farms (years data was collected for)	Type of Area (within 30 km of windfarms)	Employment up to last year prior to construction commencing	Employment from construction start to full commissioning	% Change from preconstruction employment to construction employment	Post completion employment during 2016- 18	% Change from preconstruction employment to post completion employment
GyM (2009-2018)	Seaside Towns	4.2	4.5	7%	5.0	18%
	Districts	11.3	12.0	6%	13.3	18%
	Wales	82.0	88.8	8%	97.3	19%
	GB	1,939	2,086	8%	2,328	20%
Humber Gateway & Westmost Rough (2010-17)	Seaside Towns	1.9	2.1	11%	2.2	15%
	Districts	17.1	18.1	6%	19.8	16%
	Yorkshire & the Humber	138.8	151.7	9%	155.5	12%
	GB	1,958	2,121	8%	2,277	16%
Lincs (2009-15)	Seaside Towns	4.5	4.8	6%	4.9	9%
	Districts	10.3	10.9	5%	11.2	9%
	East Midlands	114.7	113.3	-1%	116.7	2%
	GB	1,938	1,997	3%	2,121	9%
Rampion (2014- 2020)	Seaside Towns	21.0	22.1	5%	23.0	9%
	Districts	28.2	28.7	2%	29,467	5%
	South East	317.8	326.0	2%	329,667	4%
	GB	2,213	2,328	5%	2,220	5%
Thanet (2009- 15)*	Seaside Towns	n/a	3.1	n/a	3.2	n/a
	Districts	n/a	6.7	n/a	7.0	n/a
	South East	n/a	273	n/a	385	n/a
	GB	n/a	1,927	n/a	1,958	n/a
Kentish Flats Extension (2012- 18)	Seaside Towns	7.0	7.8	11%	8.7	23%
	Districts	23.8	26.3	10%	28.4	19%
	South East	295	318	8%	326	10%
	GB	2047	2206	8%	2328	14%

Source: ONS, BRES, 2021. \*Due to data availability the pre-construction employment cannot be assessed, therefore the employment in the construction to commissioning period has instead been used. Additionally, the due to the effects of the financial crisis, as well as assessing the post completion stage, the post financial crisis period has also been assessed.

- 1.65 The data described in this research does not provide evidence that the development of large scale offshore wind farms near to significant seaside towns coincides with a decline in tourism employment either during or after construction. The trends in post completion employment in the tourism sector tends to be generally positive or neutral comparatively, although other economic forces will probably play a larger part in determining these trends of tourism and associated tourism employment.

## Appendix A - Tourism Sector Definitions

Table 1.10 Tourism Sector Definition	
SIC	Description
55100	Hotels and similar accommodation
55201	Holiday centres and villages
55202	Youth hostels
55209	Other holiday and other short-stay accommodation (not including holiday centres and villages or youth hostels)
55300	Camping grounds, recreational vehicle parks and trailer parks
55900	Other accommodation
55101	Licensed restaurants
56102	Unlicensed restaurants and cafes
56103	Take away food shops and mobile food stands
56210	Event catering activities
56290	Other food service activities
56301	Licensed clubs
56302	Public houses and bars
49100	Passenger rail transport, interurban
49320	Taxi operation
49390	Other passenger land transport
50100	Sea and coastal passenger water transport
50300	Inland passenger water transport
51101	Scheduled passenger air transport
51102	Non-scheduled passenger air transport
79110	Travel agency activities
79120	Tour operator activities
79901	Activities of tourist guides
79909	Other reservation service activities (not including activities of tourist guides)
90010	Performing arts
90020	Support activities to performing arts
90030	Artistic creation
90040	Operation of arts facilities
91020	Museum activities
91030	Operation of historical sites and buildings and similar visitor attractions
91040	Botanical and zoological gardens and nature reserve activities
92000	Gambling and betting activities
93110	Operation of sports facilities
93199	Other sports activities (not including activities of racehorse owners)
93210	Activities of amusement parks and theme parks
93290	Other amusement and recreational activities
77100	Renting and leasing of cars and light motor vehicles
77210	Renting and leasing of recreational and sports goods
77341	Renting and leasing of passenger water transport equipment
77351	Renting and leasing of passenger air transport equipment
82301	Activities of exhibition and fair organizers
82302	Activities of conference organizers
68202	Letting and operating of conference and exhibition centres

Source: ONS

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