

OXFORD ECONOMICS

The contribution to the UK economy of the Cygnus North Sea project

**A report for Centrica
August 2014**



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1 Introduction and summary

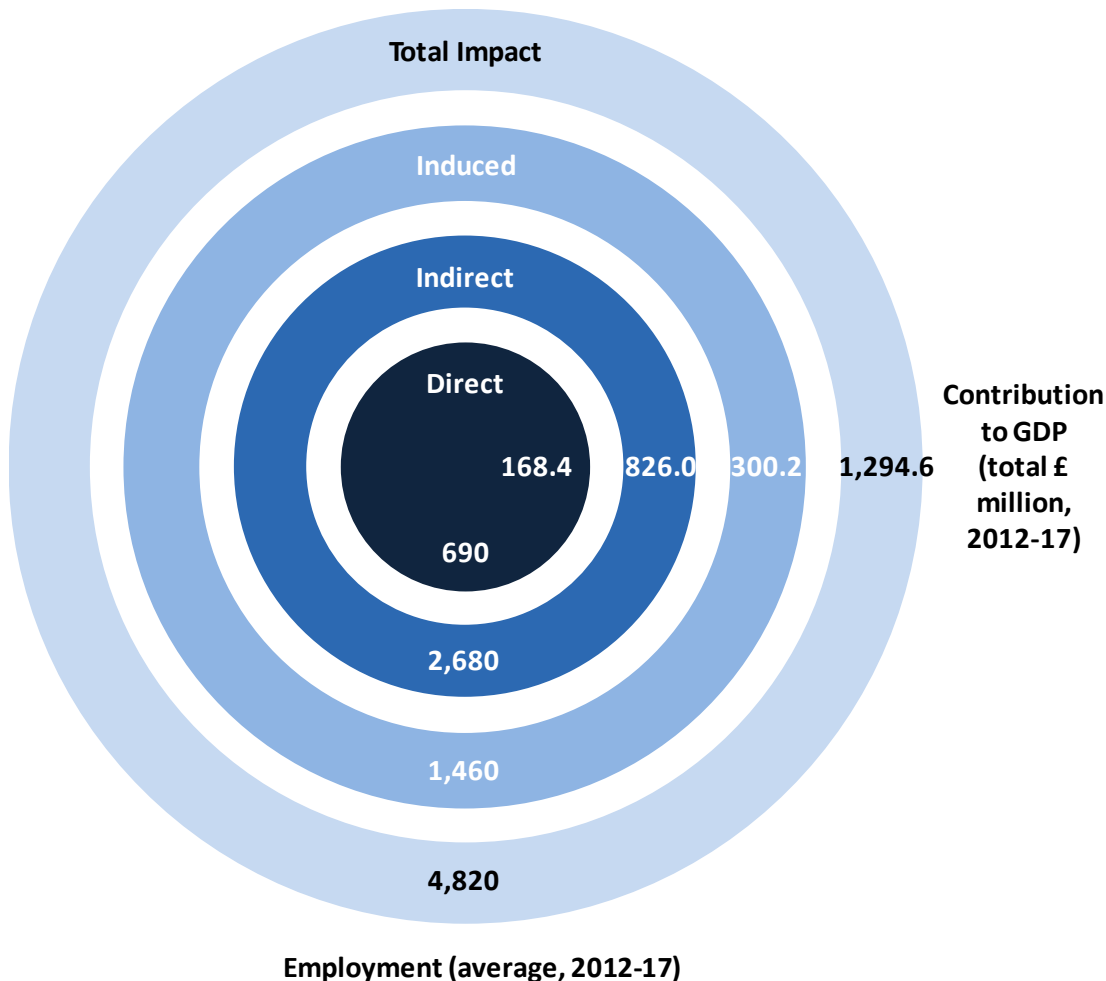
This brief report sets out the estimated contribution to the UK economy of budgeted expenditure associated with the Cygnus gas field development in the southern North Sea – a joint venture funded by Centrica, operator GDF SUEZ E&P UK Ltd and Bayerngas – as calculated by Oxford Economics in response to a request by Centrica.

We find that the total contribution to UK GDP – comprising so-called ‘direct’, ‘indirect’ and ‘induced’ impacts – will be some £1.29 billion in total over the time period of the project, i.e. between August 2012 and mid-2017. This is expected to be sufficient to support, on average, around 4,820 jobs throughout that near-five-year period (or put another way, some 23,310 ‘job-years’). It should be noted that this GDP figure excludes the contribution of any net profit arising from future gas production. Details are set out in Table A.1 in the Annex.

For ‘onshore’ activities supported by the project, the benefit for the ‘first round’ of suppliers to the venture is particularly marked in Scotland and the North East, relative to those regions’ overall share of UK activity. Taking into account resulting transactions further along the supply chain, as well as the knock-on effect of employee spending, other parts of the nation can be expected to benefit too.

“The total contribution of the Cygnus project to UK GDP is expected to be £1.29 billion over a near-five-year period, sufficient to support an average of 4,820 jobs over that time.”

Figure 1.1: The economic contribution to the UK of the Cygnus project



2 National impact

2.1 Total budgeted expenditure and 'direct' GDP impact

The budget for the overall project is in the region of £1.4 billion. Of this, just over £250 million will be spent on contractors and suppliers based overseas, leaving almost £1.15 billion to be spent within the UK.

As the project backers' own potential profits are excluded from the scope of this brief¹, the only 'direct' contribution to GDP shown in our calculations reflects the employment costs of staff working directly for the Cygnus Partnership on aspects of the project. These costs are planned to be around £168 million. On the assumption that these employees' earnings are in line with the average for London- and Scottish-based workers in professional, scientific and technical activity sectors, this would be sufficient to support an average of 690 jobs² for the duration of the project (or some 3,330 'job years').

2.2 Supply chain ('indirect') impacts

The remaining £980 million budget for spending in the UK comprises outlays to fund activities taking place offshore (chiefly drilling), as well as contracts benefiting a wide range of suppliers onshore. Based on official 'input-output' tables showing supply chain linkages between narrowly-defined sectors of the UK economy, we estimate that some £565 million of this will accrue to these direct suppliers to the project, and to their workers, in the form of profits, wages and other gross employee remuneration, with the remaining £415 million being spent on procurement of goods and services from other entities based either in the UK or abroad.

The £565 million figure represents the contribution to GDP of this 'first round' of the supply chain. It should be sufficient to support some 1,600 jobs on average for the duration of the project (some 7,710 'job-years') based on typical productivity and employment costs per head across the affected sectors.

Taking into account the purchases of these businesses from other UK-based firms, and their purchases from further domestic suppliers in turn, entities further along the supply chain will accrue some £261 million in profits and employee remuneration. This should be sufficient to support a further 1,080 jobs on average over the period (or 5,210 'job years'). That takes the total 'indirect'

"Cygnus' spending on its own staff will directly contribute £168 million to UK GDP, with a further £826 million of GDP supported in the domestic supply chain as a result of its other outlays."

¹ Expected gross profits from future gas production are included in our calculations only in the sense that – and to the extent that – they can be assumed to cover the capital outlays that form part of the total project budget. These capital outlays will contribute to GDP and jobs in this analysis through the 'indirect' and 'induced' channels.

² All jobs figures in this report are rounded to the nearest ten.

contribution to GDP to £826 million, supporting 2,680 jobs on average over the project time horizon (equivalent to 12,930 'job years').

The remaining £154 million of the UK spending budget is not captured in UK GDP due to 'leakage'. This chiefly reflects content that is ultimately imported, but will also include the impact of certain taxes levied on supply chain transactions (e.g. VAT in cases where this cannot be reclaimed).

2.3 Total impact including employee spending ('induced') impact

In addition to the direct and supply chain impacts described above, the project will be making a further contribution to UK GDP due to spending out of employee earnings directly or indirectly supported by the venture. This so-called 'induced' impact is expected to amount to £300 million over the project's lifespan, sufficient to support an average of 1,460 jobs throughout that time (some 7,050 'job years').

Taking all of the direct, indirect and induced contributions together, the project can be said to make a total contribution to UK GDP of £1.29 billion, sufficient to support an average of 4,820 jobs throughout the near-five-year time horizon (around 23,310 'job-years').

"A further £300 million is contributed to UK GDP through the consequences for household spending of the income generated throughout the supply chain."

3 Regional analysis

Cygnus' budgeted expenditure can be broken down by the region in which the activity takes place or in which the supplier is based, in turn enabling a breakdown of the contribution to GDP and jobs across the countries and regions making up the UK. This is summarised in Table 3.1.

Table 3.1: Project outlays and economic contribution by region benefiting

Regional analysis					
	UK Offshore	North East	Scotland	London	Rest of UK
Approximate distribution of Cygnus' budgeted spending in the UK (£ million)	224.0	140.3	355.8	315.7	112.6
Consequent direct and indirect impact on GDP	224.0	76.6	241.8	272.8	179.3
Additional induced impact on GDP	-	12.8	81.1	69.8	136.5
Total contribution to GDP (£ million)	224.0	89.4	322.9	342.5	315.8
Average number of UK jobs supported	290	410	1,450	1,120	1,540
<i>Regional share of project's contribution to GDP</i>	<i>17</i>	<i>7</i>	<i>25</i>	<i>26</i>	<i>24</i>
<i>Regional share of UK GDP for comparison</i>	<i>2</i>	<i>3</i>	<i>8</i>	<i>22</i>	<i>65</i>

In the allocation of project spend, the costs of materials and services sourced onshore but supporting offshore activity are counted in the relevant onshore region. Consequently, we count all of the expenses allocated to 'offshore' as contributing to that 'region's' GDP, with no further supply chain impacts. The induced impact due to North Sea workers spending their earnings onshore in the UK is captured in the onshore regions' figures.

For the onshore regions, the direct (i.e. employment cost) impact is allocated between London and Scotland. The indirect impacts meanwhile are heavily influenced by the location of Cygnus' contractors and suppliers. Scotland and London are also pertinent here, though so too is the North East, reflecting, for example, the Hartlepool-based Heerema Yard contract. But the indirect impacts also capture the effect of inter-regional transactions (as well as import content) further down the supply chain.

It can also be seen how the benefits of the 'induced' contribution to GDP are spread across the nation, as spending by the employees of the Cygnus Partnership and its suppliers, mostly in their region of residence, generates further inter-regional supply chain effects.

Figure 3.1: Total contribution to GDP and jobs by region



Annex

Table A.1: Project outlays and the resulting contribution to UK GDP and jobs

	Planned expenditure (£ million, total over 2012-17)	Contribution to UK GDP (£ million, total over 2012-17)	Average number of UK jobs supported
Total planned expenditure	1,401.9		
Of which: overseas contractors & suppliers	253.6		
Total spending in the UK	1,148.4		
<i>Of which:</i>			
Cygnus' own staff costs ('direct' impact on GDP)	168.4	168.4	690
Purchases from suppliers	980.0		
<i>Resulting supply chain ('indirect') GDP impacts:</i>			
- For the 'first round' of UK-based suppliers		564.9	1,600
- For UK entities further along the supply chain		261.1	1,080
- (<i>Residual value: mainly content ultimately imported</i>)	(153.9)		
Further impact on UK activity due to consequent employee spending ('induced' impact)		300.2	1,460
Total impact for the UK economy		1,294.6	4,820

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