OFFICE OF FAIR TRADING

Anticipated acquisition by Infinis Energy Ltd of Noveral Energy plc

ME/4287/09

The OFT's decision on reference under section 33(1) given on 19 November 2009. Full text of decision published 27 November 2009.

Please note that the square brackets indicate figures or text which have been deleted or replaced in ranges at the request of the parties or third parties for reasons of commercial confidentiality.

PARTIES

1. **Infinis Energy Ltd ('Infinis')** is a wholly-owned subsidiary of Terra Firma Capital Partners II Fund (**'Terra Firma'**), a diversified private equity investment firm. Infinis, its sister subsidiary Infinis Limited and its subsidiaries are active in the generation of electricity from renewable energy sources. It is currently active in landfill gas ('LFG') electricity generation and owns assets in the on-shore wind and biomass sectors (although the last two are, at the time of the OFT's decision, not yet generating electricity).

2. **Novera Energy Plc ('Novera')** is also active in the generation of electricity from renewable sources in the UK; namely wind, water and landfill gas. Novera had revenues in the UK of approximately £35.5 million in 2008.

TRANSACTION

3. Infinis currently has a shareholding in Novera of approximately 29 per cent.

4. On 6 October 2009, under Rule 5.2(a) of the City Takeovers Code (the Code) Infinis acquired an additional 13 per cent of Novera, thereby triggering a mandatory cash offer for Novera under Rule 9 of the Code.

5. On 7 October 2009, Infinis announced the terms of its cash offer for the shares in Novera that it did not already own. At the time of writing,

Novera has rejected Infinis' offer and the bid is proceeding as a hostile takeover.

6. On 22 October 2009, Infinis submitted a Merger Notice, and payment, to the OFT concerning the acquisition by Infinis of all the shares of Novera that it does not already own.[1]

7. The statutory timeframe within which the OFT must make a decision expires on 19 November 2009.

JURISDICTION

8. As a result of this transaction Infinis and Novera ('the parties') will cease to be distinct.

9. The UK turnover of Novera does not exceed £70 million, so the turnover test in section 23(1)(b) of the Enterprise Act 2002 (the Act) is not satisfied.

10. The parties overlap in the generation of electricity using landfill gas (LFG), and Terra Firma submits that the parties have a combined share of supply of approximately [35-45] per cent, by installed capacity, in Great Britain. The share of supply test in section 23 of the Enterprise Act 2002 is therefore met.

11. The OFT therefore believes that it is or may be the case that arrangements are in progress or in contemplation which, if carried into effect, will result in the creation of a relevant merger situation.

MARKET DEFINITION

Electricity generation

12. Both parties are active in the generation of electricity from 'renewable' or 'green' sources in Great Britain,[2] with overlapping interests in the generation of electricity via LFG. Further, Infinis also owns assets for the

[1] The Merger Notice submitted by Terra Firma relates to Infinis' shareholding in Novera increasing from approximately 42.5 per cent to 100 per cent. Under section 29 of the Act, the OFT can aggregate shareholdings acquired by one company in another across a two-year period. The OFT could therefore also consider the acquisition of all Novera shares which Infinis currently owns, as Infinis first acquired Novera shares in March 2008. However, as there is no realistic prospect of competition concerns arising even if the full 100 per cent of Novera shares are assessed as having been acquired at the same time (as permitted by section 29), the OFT has not needed to draw this distinction.

[2] Neither company generates electricity in Northern Ireland.

generation of electricity via biomass, while Novera owns on-shore wind and hydro-electricity assets.

13. Given the merging parties have a significant overlap in the generation of electricity from LFG, this is therefore the logical starting point for market definition in this case. The OFT therefore examined whether it was appropriate to define a market for electricity generation from LFG.

14. In past cases involving electricity generation in Great Britain (for example EDF/BE;[3] Iberdrola/Scottish Power[4]), the European Commission ('EC') has defined a single market encompassing both the physical generation and wholesale trading of electricity, incorporating both baseload and flexible generators, regardless of fuel source. These decisions reflect the fact that, for suppliers (retailers) and end users of electricity (consumers), there is near-perfect demand-side substitution between different sources of electricity; that is, there is no material difference between electricity generated from different fuel sources. The OFT has also defined electricity generation markets along the same lines, although it has left open the possibility of flexible generation comprising a separate market.[5] In this case, however, the merger parties involved both generate electricity from LFG, which is classed as a 'renewable' source of energy.

15. Electricity suppliers in Great Britain are obliged to source a certain amount of their electricity from renewable sources. To fulfil this obligation (called the Renewables Obligation ('RO'[6])), suppliers can present Renewable Obligation Certificates ('ROCs')[7] in each region, the requisite number being linked to the amount of electricity they supply end users. ROCs can be obtained by suppliers either by generating or purchasing energy from approved accredited sources.[8]

16. Suppliers which cannot submit the requisite number of ROCs at the end of an annual obligation period are required to contribute to each region's 'buy out' fund (at a statutory price set and regulated by the Office of Gas and Electricity Markets (Ofgem)). These funds are then redistributed to suppliers via a 'recycling fund' in proportion to the number of ROCs that they submitted collectively to all ROs.

[3] Case No.5224, 22 December 2008.
[4] Case No.4217, 26 March 2007.
[5] See, for example, *Anticipated acquisition by Centrica of 20 per cent of Lake Acquisitions* (ME/4133/09); *Completed acquisition of Great Yarmouth Power Limited by RWE Npower* (ME/2140/05)*; Completed acquisition of Enfield Energy Centre Limited by E.ON UK plc* (ME/1808/05).
[6] Called the Scottish Renewables Obligation (SRO) in Scotland.
[7] These are called Scottish Renewable Obligation Certificates (SROC) in Scotland.
[8] In 2009-10, in order to fulfil their RO, suppliers can provide 0.097 ROCs for each MWh of electricity that they supply in England & Wales and Scotland.

17. As a consequence, suppliers are incentivised to source a proportion of their electricity from renewable generation, as opposed to obtaining their requirements solely from non-renewables (even though non-renewables may be lower cost). Further, going forward, this incentive is likely to increase, as the target RO is scheduled to increase incrementally in the coming years.

18. For the vast majority of renewable energy generation in Great Britain, including LFG, each MWh of electricity generated also generates one ROC, and both are normally sold together to suppliers.

19. Market participants surveyed – both generators and suppliers – indicated that, in general, one source of renewable energy is substitutable for another. Thus, generators of electricity from LFG are likely to face competition from all other sources of renewable energy; similarly, generators of electricity using LFG are likely to constrain other sources of renewable energy. This is because the vast majority of existing renewable generation capacity is allocated one ROC per MWh of output. As such, the OFT did not consider there currently to be a separate market for the generation of electricity from LFG, given the high degree of substitutability between LFG and other sources of renewable energy.

20. Nevertheless, the OFT notes that, on 1 April 2009, the RO was amended so that all new renewable energy generation projects are banded. This means that some generation technologies projects will be awarded a different number of ROCs for each MWh of electricity generated than others. For instance, each MWh of energy generated from new LFG generation capacity will, in future, only be allocated a quarter of a ROC, while off-shore wind will be allocated one and a half ROCs and various hydro-electricity technologies will receive two. This may affect competition between various sources of renewable energy, as some technologies become more attractive to suppliers than others.

21. Consequently, for new renewable electricity generation which is subject to the revised ROC bandings, it may be appropriate in the future to delineate the renewable market by technology type.

22. Market enquiries revealed, however, that there is unlikely to be a significant number of new LFG generation projects coming on-line going forward. The OFT understands that this is due to a combination of existing government initiatives, which have been discouraging the use of landfill to dispose of organic waste (which produces LFG), and the new banding in the ROC regime, which puts new LFG generation at a competitive disadvantage to other new renewable generation projects. In any event, the OFT considers that new LFG generation projects would be likely to continue to face competition from both existing and new renewable generation, and perhaps even more so than it currently does,

due to fewer ROCs being attributed to them for each MWh of generation. As such, the OFT does not consider it appropriate to define a separate market for new LFG electricity generation.

23. In light of the above discussion concerning the incentives for suppliers to source an increasing amount of their electricity from renewable sources, however, the OFT considers there may be a market for renewable generation. However, the OFT did not need to conclude on this point as, even on this – the most conservative, plausible market definition – the OFT is satisfied there is no realistic prospect of competition concerns arising.

Conclusion – generation market

24. The OFT considered it plausible that there may be a market for the generation of electricity from renewable sources, but did not need to conclude on this point.

Acquisition of rights to extract LFG and generate electricity on landfill sites

25. Both parties are involved in electricity generation from LFG and consequently compete for the acquisition of landfill sites, although as discussed at paragraph 22, above, the OFT understands that there are few, if any, sites suitable for the generation of electricity that are likely to come up for sale in the near future.

26. In addition, Infinis and Novera (and others) have a history of competing for contracts to generate electricity on third parties' landfill sites.

27. Market enquiries suggested that a landfill site owner may choose to outsource the generation of electricity for a number of reasons. Some owners indicated that they did not have the expertise to operate an electricity generation operation themselves, while others felt that their landfill site was not large enough to justify generating electricity on an in-house basis.

28. Companies contracted to generate electricity on a site generally acquire the right to extract all gas from the site and a proportion of the profits on the sale of electricity. Investment in infrastructure may be undertaken by the site owner, energy company or shared between them. This includes the acquisition and installation of generators, gas extraction equipment and a connection to the electricity grid. Market enquiries revealed that contracts are typically around 15 years in duration, which typically

covers a substantial proportion of the useful life of a site in terms of electricity generation.[9]

29. Market enquiries revealed that where a landfill remains economically viable beyond the length of a contract, landsite owners may go to the market again and re-tender the operation of their site (or do it themselves in-house if this is viable).

30. The OFT understands that landfill sites are differentiated, not least in terms of their geographical location. Consequently, gas extraction and electricity generation at one landfill site is not a substitute for gas extraction and electricity generation at another, from the viewpoint of the landfill site owner. Nonetheless, the OFT's market enquiries revealed that the supply-side competencies needed for gas extraction and electricity generation do not vary significantly from one landfill site to another, which is why the same firms (including Infinis and Novera) compete to supply them.

31. The OFT therefore considers that a relevant market in this case is the provision of electricity generation services to owners of landfill sites.

HORIZONTAL ISSUES

Renewable generation

32. Infinis has 80 in-house generating sites in Great Britain with a total installed capacity of 263 MW. It also generates electricity on a further 20 sites which it does not own [see endnote 1]. In the year ending 31 March 2009, Infinis sold 1,557 GWh of electricity from renewable sources.

33. Novera generates electricity from wind, water and LFG. It has a generation capacity of 157 MW derived from 57 sites across the UK (of which 46 are LFG sites)[see endnote 2] and exported 540 GWh of electricity for the year ending 31 December 2008.[10] Novera also has a number of wind generation plants that are expected to come online out to 2013, which is expected to take its capacity up to 237.5 MW.

34. Infinis submits that the parties' combined share of generation from renewable sources is approximately 13 per cent, by the number of ROCs it produced in 2007/08.

[9] The life of a land fill site (over which it is economically viable to extract gas) can be several decades but will vary according to factors such as the size of the landfill, the type of waste used and whether the site is open (still taking waste) or closed.
[10] This output figure excludes its wind farm at Lissett Airfield, which came on-line in February 2009. It has a capacity of 30 MW and has an expected annual output of 74.5 GWh.

35. Post-merger, the merged entity will continue to face competition from other generators of electricity from renewable sources, including large, vertically integrated generator-suppliers, as well as numerous independent generators.

36. Table 1 below illustrates the market shares, by ROCs produced, of the major market participants in renewable generation in 2007/2008.

Table 1
Number of ROCs produced in 2007/08
by the top electricity suppliers in Great Britain

Supplier	Number of ROCs	% of total ROCs
Infinis	1,555,376	9.9
Novera	514,553 [1]	3.3
Infinis + Novera	**2,069,929**	**13.2**
Scottish and Southern Energy	2,772,781	17.6
Scottish Power	1,518,839	9.7
RWE Npower	1,317,714	8.4
EDF	860,096	5.5
E.ON	753,376	4.8
Total	15,720,926 [2]	100

Source: *Terra Firma, citing Infinis, and Ofgem's 2007/2008 Renewables Obligation Annual Report.*

Note: [1] This excludes the ROCs produced by the Lissett Airfield Wind Farm, which became operational in February 2009. [see Endnote 3]

[2] This includes the total ROCs produced in Great Britain for Infinis and Novera, whereas the data regarding the other electricity suppliers are for the UK and may therefore slightly overstate or understate the market shares of competitors, depending on the number of NIROCs they presented.

37. Given the low combined market share of the merged entity, and the fact that it will face competition from other, well-resourced market participants going forward, the OFT does not consider that there is a realistic prospect of a substantial lessening of competition in any relevant electricity generation market in the UK.

Provision of electricity generation services to owners of landfill sites

38. The merger will combine the two largest generators of electricity from LFG in Great Britain. As a result of the merger, the merged entity will own or manage approximately [35-45] per cent of active LFG generation sites in Great Britain.[11] Both Infinis and Novera not only generate electricity from LFG on their own sites, they also extract LFG and generate electricity on third parties' sites pursuant to operating licences, which are usually awarded on a tender basis.

39. Some market participants commented that this transaction represented the merger of two of the main bidders for electricity generation contracts in Great Britain and raised concerns that it may therefore have negative implications for independent[12] owners of landfill sites looking to outsource LFG extraction and electricity generation.

40. In this regard, market enquiries revealed that the other main types of companies in the generation of electricity using LFG—vertically integrated energy companies and waste companies—do not tend to operate sites on behalf of other companies. As such, concerns were raised that independent site owners would either have to find an independent company to generate electricity on their sites or look after the electricity generation themselves.

41. Nevertheless, several independent companies were identified by customers as being viable alternatives to the merger parties, including EnerG, Viridis and Renewable Power Systems. (Customers identifying alternative suppliers typically identified between three and six.) Although these alternatives are smaller than a combined Infinis-Novera, market enquiries revealed examples of effective competition in the market from relatively small companies, including competitors successfully winning business ahead of both merger parties in the recent past.

42. Given that competition in this market between the parties is in tendering for long-term contracts with landfill site owners, current market power is more likely to be reflected in the proportion of recent tenders won by market participants rather than the existing base of long-term contracts acquired. On this basis, although only limited evidence of recent tendering is available, the parties do not appear to have a share of new business to match their share of existing share of contracts.

[11] Source: Ofgem statistics available at www.renewablesandchp.ofgem.gov.uk/Public/ReportViewer.aspx?ReportPath=/Renewables/Accreditation/AccreditedStationsExternalPublic&ReportVisibility=1&ReportCategory=1

[12] That is, one that does not have a waste management or electricity generation business.

43. As well as locating other companies to generate electricity on their sites, some landfill site owners advised that it would be viable for them to generate electricity in-house ('self-supply') when their contracts expired. Indeed, two site owners of single sites told the OFT that they would consider self-supply, although the OFT notes that, for sites with a generation capacity of less than 2 MW, some market participants raised doubts that the expertise required to operate sites this small justified the effort.

44. In light of the above, the OFT considered landfill owners would be left with a sufficient range of options for the generation of electricity on their sites post-merger.

Barriers to entry and expansion

Renewable generation

45. Infinis submitted that new entry into the wholesale generation of electricity requires significant expenditure. This is true for generation powered by all types of fuel – both renewable and non-renewable – but market enquiries indicated that barriers were lower into renewable generation as upfront costs were lower both in terms of price and time.

46. The numerous renewables projects currently being undertaken by many energy companies in the UK at the moment also suggests that barriers to entry and expansion are not insurmountable.

47. In any event, given the OFT found the merged entity would be likely to face sufficient competition from remaining players in the generation market post-merger, it did not need to conclude whether barriers to entry would be sufficiently low to mitigate any significant lessening of competition.

Provision of electricity generation services to owners of landfill sites

48. Companies wishing to generate electricity from LFG require access to a site connected to the national electricity grid, a licence to generate and sell electricity and the appropriate equipment and expertise. Equipment such as gas extraction machinery and electricity generators is also required.

49. Landfill sites take a number of years to 'mature' to the stage where they have sufficient LFG to extract for commercial purposes. All active sites in the UK are either owner-run or contracted out under long term agreements, and the OFT understands that there is a decreasing number of 'new' sites becoming available as Government policy encourages the

disposal of organic matter in ways other than landfill. The OFT therefore considers access to a suitable site to be the key barrier to entry.

50. Market enquiries indicated that the equipment required to extract gas and generate electricity is readily available, although some market participants did comment that expertise was a potential issue in the context of considering whether site owners could take electricity generation in-house.

51. While not strictly a barrier to entry, the OFT also noted that the incentive for new entrants to start bidding for LFG site management contracts is also likely to be blunted by the fact that the LFG generation industry is in decline as there are fewer sites coming on-line. Further, other new sources of renewable energy are more likely than landfill to attract companies considering entering renewable generation, as incentives to generate electricity from LFG against other 'green' energy sources are diminishing because: (a) of the new ROC banding system; and (b) other sources of renewable energy (for example, wind) are not finite in the way landfill is.

52. In any event, the OFT found that owners of landfill sites had sufficient alternatives to the merger parties when looking to monetise their site via electricity generation, and so the OFT did not need to conclude on barriers to entry.

THIRD PARTY VIEWS

53. The OFT conducted market enquiries with a range of market participants, including large energy companies, waste management companies, landfill site owners and independent renewable energy companies. It also sought comment from the energy sector regulator, Ofgem.

54. A substantial number of market participants observed that the LFG generation industry is either at its peak or declining; most landfill sites are under long term contracts struck as long ago as the mid 90s and there are not expected to be many new sites coming into operation. As such, there is expected to be only limited competition between the merging parties (and others) for new sites going forward.

55. Some concerns were raised regarding the choices faced by landfill site owners when looking to renegotiate contracts with current operators. Some market participants commented that Novera and Infinis are the largest independent landfill site operators and the merger will remove the significant competitive tension between them. Others, however, were more relaxed about this, advising that there are sufficient other

companies in the market who, while smaller than the merged entity, are likely to effectively compete against it going forward.

56. No concerns were raised in regard to the impact of the transaction on any generation market. We consulted Ofgem and it did not raise any concerns about the merger.

ASSESSMENT

57. The Parties overlap in the generation of electricity from renewable sources, namely LFG. They also overlap in the related field of providing electricity generation services on LFG sites for third parties under licence.

58. On any plausible definition of a market for electricity generation, competition concerns are unlikely to arise. The merged entity will account for less than one per cent of total electricity generation in Great Britain and just over 10 per cent of renewable generation and will continue to face strong competition from the major energy companies in Great Britain. Further, the merged entity is likely to continue to face competition from other renewable generation companies going forward as UK regulations encourage investment in new renewable generation projects.

59. A small number of market participants suggested that the merger may have a negative effect on LFG site owners looking to license generator or re-license their sites to a generator once the contract with their current generator expires.

60. However, the OFT identified a number of companies besides the merger parties that can and do operate LFG facilities on a third party basis. Recent tendering data suggests that even relatively small companies have been successful in winning business ahead of the merger parties in recent bids. In addition, market enquiries also revealed that some independent site owners generate electricity in-house, and that this is a viable option for a number of site owners.

61. Consequently, the OFT does not believe that it is or may be the case that the merger may be expected to result in a substantial lessening of competition within a market or markets in the United Kingdom.

DECISION

62. This merger will therefore **not be referred** to the Competition Commission under section 33(1) of the Act.

ENDNOTES

I. While Infinis manages these sites and receives royalties for doing so, it does not generate electricity on these sites.

II. The most recent figures on Novera's website indicate Novera has a generation capacity of 143MW across 58 sites.

III. Subsequent to the OFT's decision, Infinis informed us that this should be 510,994 ROCs.