HERTFORDSHIRE COUNTY COUNCIL

COMMUNITY SAFETY AND WASTE MANAGEMENT CABINET PANEL

FRIDAY 4 MARCH 2016 at 10:00 am

Agenda Item No.

10

FUTURE DIRECTION OF THE RESIDUAL WASTE TREATMENT PROGRAMME

Report of the Chief Executive & Director of Environment

Executive Member: Richard Thake – Community Safety & Waste Management

Local Members: Tim Hutchings (Hoddesdon North)
Alan Searing (Hoddesdon South)

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1. Purpose of the report

1.1 To provide Members with information concerning the Revised Project Plan ("RPP") submitted by Veolia ES Hertfordshire Limited ("VES") in accordance with the Residual Waste Treatment Contract ("the Contract") entered into between VES and Hertfordshire County Council ("the Council") on 27 July 2011 for the long term treatment of Hertfordshire's residual Local Authority Collected Waste ("LACW")

1.2 To explain the RPP, the contractual context, its suitability to meet the Council's needs, its acceptability in commercial, affordability and deliverability terms and to provide a comparative assessment between the RPP and credible alternative options available to the Council for the treatment of residual LACW in Hertfordshire.

1.3 To enable the Panel to make a recommendation to Cabinet for consideration at its meeting on 14 March 2016.

2. Summary

2.1 Following a procurement process using the competitive dialogue procedure pursuant to the Public Contracts Regulations 2006 (as amended), the Council awarded the Contract to VES in July 2011 on the basis that VES had submitted the most economically advantageous tender. The Contract required VES to obtain planning permission for a proposed energy from waste facility ("EfW") at south Hatfield. The Contract also provides that if a "satisfactory" planning

permission was not obtained by the agreed Planning Permission Longstop Date then the Council was entitled to either terminate the Contract or invite VES to propose a RPP. The RPP mechanism in the Contract allows VES to propose an alternative site and/or design and other consequential changes to the Contract. Following the failure of the New Barnfield proposal to obtain planning permission, in January 2015 the Council invited VES to submit a RPP and in July 2015 a RPP was submitted by VES in accordance with the Contract. The Council may now either accept the RPP or reject it.

2.2 If the Council accepts the RPP it will need to bring the RPP into effect by varying the Contract. If the Council rejects the RPP it will need to terminate the Contract and pay compensation to VES.

2.3 The RPP submitted by VES details their proposal to develop a high efficiency energy recovery facility ("the Facility"), based on modern incineration technology, and designed to meet R1 "recovery" status[1] under the Waste Framework Directive. The Facility would be Combined Heat & Power ("CHP") "ready" and with recovery/reprocessing of Incinerator Bottom Ash ("IBA") derived from the processing of residual waste streams.

2.4 The location of the proposed Facility is at Fieldes Lock, Rye House, Hoddesdon ("the Site"). The land is owned by Tarmac Aggregates Limited ("Tarmac") and discussions have been completed by VES to secure the site, that is, an Option for Lease has been signed (and is pending exchange on Council RPP acceptance) between Tarmac and VES. This element of the RPP has taken considerable time to secure and is the principal reason for the delay in publicly announcing elements of the draft RPP earlier in the process.

2.5 The proposed Facility would have a nominal capacity and the ability to accept 320k tonnes per annum of waste (based on normal calorific values and plant availability) and is expected to generate 33.5 Megawatt electric (MWe) gross of power (30.2MWe nett). This can be considered as the equivalent electricity input into the National Grid for 69,000[2] typical households. VES will remain obliged to accept the same level of waste (should it arise) prescribed by the Contract, 352k tonnes per annum, so the RPP maintains the current flexibility and resilience to manage residual waste growth.

2.6 As a result of physical constraints at the Site, the Facility will not include a front end materials recycling and recovering facility as was proposed as part of VES' New Barnfield solution.

[1] A performance indicator for the level of energy recovered from waste. Those that achieve R1 status can be classified as 'recovery' facilities rather than disposal facilities.

[2] According to OFGEM (2015) typical domestic electrical consumption is 3.5 MWh/home/year was, Rye House should generate 241,600 MWh per year= 69,000 households

2.7 The Contract Guaranteed Minimum Tonnage ("GMT") input commitment from the Council has been reduced from 180k to 135k tonnes per annum with payment banding structured into three bands, (i) 0 to 180k tonnes, (ii) 180,001 to the Council's revised waste flow projections submitted as part of the RPP process and (iii) up to the Contract maximum tonnage of 352k for the Facility to cater for waste growth above projected levels.

2.8 Should the Council decide to accept and effect the RPP through a Deed of Variation to the Contract and a planning permission is obtained in line with VES's expectations, the Planned Services Commencement Date for the Facility is estimated to be the 31 December 2020.

2.9 The proposed operational period of the Contract is 30 years ("Contract Period") following planning and construction for the Facility. The Contract would expire in 2050 ("Expiry Date").

2.10 Given the Site is owned by Tarmac and would be secured by VES on a long lease ("the Headlease"), on the Expiry Date of the Contract the Site and Facility would not be in the Council's control. At the end of the Contract Period, VES retain the Facility and would be able to continue to operate it for the final ten years of its planned life (40 year total) based on 100% non-contract waste. This allows a longer depreciation period for the Facility which is reflected in a lower unitary charge for the Council (the calculated gate fee per tonne in accordance with the payment mechanism in the Contract). This also means at the end of the Headlease term that VES rather than the Council is responsible for decommissioning the Facility and returning the Site to Tarmac as a "flat site".

2.11 To retain flexibility in relation to the Facility, an "option" has been negotiated to allow the Council to make a one-off capital investment 2 years prior to the end of the Contract Period to purchase the remaining term of the Headlease from VES. The Council would then be Tarmac's tenant rather than VES and could use the Facility for the remainder of the Headlease term of the Facility. The Council has no obligation to exercise this option.

2.12 Alongside consideration of the RPP, the Council has also considered other options available and has conducted a market consultation exercise to understand how the RPP compares to other potential alternatives. Further detail is contained in section 16 of the report below.

3. Recommendations

3.1 That the Community Safety and Waste Management Panel recommends that Cabinet:

3.1.1 Approves the acceptance in principle of the Revised Project Plan (RPP) submitted by Veolia ES (VES) Hertfordshire Limited subject to the satisfactory conclusion of the legal drafting required to vary the Residual Waste Treatment Contract (the Contract) and subject to satisfactory conclusion of the legal drafting of all associated ancillary documents required to give effect to the RPP.

3.1.2 Authorises the Assistant Director – Transport, Waste & Environmental Management to conclude the detailed discussions on the RPP with VES and discussion and drafting of the Contract variation and all associated ancillary documents in consultation with the Chief Legal Officer and the Chief Finance Officer (Section 151 Officer).

3.1.3 Subject to 3.1.1 and 3.1.2 above, authorises:

(a) the Chief Executive and Director of Environment in consultation with the Executive Member for Community and Waste Management to accept the RPP;

and

(b) the Council to enter into the relevant Contract variation agreement and to enter into any necessary documentation required to give effect to the RPP and to take all other steps and actions to protect the Council's interests.

3.2 Authorises the Assistant Director – Transport, Waste & Environmental Management in consultation with the Chief Legal Officer and the Chief Finance Officer (Section 151 Officer) to enter into a further deed of variation to the Contract to extend the deadline for acceptance of the RPP from 31 March 2016 to 30 June 2016 if this is considered necessary to enable the Contract variation agreement and other necessary documentation referred to in 3.1.2 to be concluded to the Council's satisfaction and/or to enable all other steps and actions to be taken to protect the Council's interests.

3.3 That the Chief Legal Officer (and in her absence either the Assistant Chief Legal Officer Environment, Property and Dispute Resolution or the Head of Commercial Law) be authorised to execute the Contract variation agreement and other necessary documentation referred to in 3.1.2 as are required to give effect to the above decisions, so far as such power is not already delegated by the County Council's Constitution.

4. Background

4.1 The Hertfordshire Waste Procurement Programme (now the RWTP) was initiated to assist the Council to undertake its statutory duties as the Waste Disposal Authority, to provide disposal facilities for all of the residual LACW in Hertfordshire, as collected by the county, district and borough councils. The RWTP has its roots in the Joint Municipal Waste Management Strategy 2007, as agreed by the Hertfordshire Waste Partnership (HWP), to seek a long term solution to meet residual LACW treatment and disposal needs.

4.2 A Contract Notice was placed in the Official Journal of the European Union (OJEU) by the Council on 9 April 2009. Thirteen (13) pre-qualification questionnaires were received with the six (6) top scoring companies and consortia invited to participate in the competitive dialogue process. Following the receipt and evaluation of the Outline Solutions, four (4) bidders were invited to submit Detailed Solutions.

4.3 Final tenders from the two (2) top scoring bidders (E.On Energy from Waste AG and Veolia ES Aurora Limited) were received in January 2011. Following the evaluation of the final tenders, a recommendation to name VES as preferred bidder was made by the Waste Management Cabinet Panel on 28 April 2011. The recommendation was approved by Cabinet on the same day.

4.4 On 27 July 2011 the Council and VES, a special purpose project company established by Veolia ES Aurora Limited for the RWTP entered into the Contract for the provision, by VES to the Council, of residual waste treatment services including the design, construction, financing and operation of a Recycling & Energy Recovery Facility ("RERF") at New Barnfield, Hatfield.

4.5 On 8 July 2014 the Secretary of State for the Department of Communities and Local Government ("SoS") refused to grant planning permission for the RERF at New Barnfield. VES successfully challenged this refusal in the High Court. The SoS re-determined the planning application and on 16 July 2015 issued a notice refusing the application.

4.6 The Contract with VES contains provisions allowing the Council, on planning failure, the option to request a RPP from VES to provide an alternative solution for Hertfordshire's residual LACW.

4.7 Following a recommendation from the Highways and Waste Management Cabinet Panel, and a decision by Cabinet in November 2014 in accordance with the mechanisms in the Contract, a Deed of Variation to the Contract was completed and a RPP was requested from VES on 7 January 2015, giving VES up to six months to present a draft proposal for evaluation. During this period

VES explored a number of options for the disposal of Hertfordshire's residual LACW and met regularly with officers to discuss progress and proposals.

4.8 A draft RPP was submitted by VES on 7 July 2015 and discussions over the content were held with the Council for a period of six months that led to the submission of a final draft RPP in late December 2015. In addition to consideration of the RPP from a deliverability and affordability perspective and discussion with VES over its commercial terms, the Council has also undertaken an evaluation of the RPP to assess how it compares to the New Barnfield solution and other solutions that were proposed in the original RWTP procurement. This work and analysis is now complete and is the subject of this report.

4.9 A detailed history of the programme can be found in the Highways and Waste Management Cabinet Panel report dated 4 November 2014 and the Community Safety and Waste Management Panel report dated 21 October 2015.

5. RPP Site

5.1 The RPP Site secured by VES is located off Ratty's Lane in Hoddesdon, Hertfordshire. The full address is: 2 Ratty's Lane, Hoddesdon, Hertfordshire, EN11 0RF. A plan showing the location of the Site is shown in *Figure 1*.

5.2 The Site is owned by Tarmac (previously Lafarge Aggregates Ltd) and is an existing industrial site with planning permission to operate an asphalt coating plant, an aggregates railhead and a ready-mixed concrete plant.

5.3 The floor space for the proposed facility would be approximately 7,950 square metres with a maximum height of 48 metres and with twin slimline emissions stacks not likely to exceed 100m in height.

5.4 The Site is not located in the Green Belt but it is not an allocated site for waste management within the adopted Hertfordshire Waste Local Plan and is safeguarded as a Rail Aggregate depot within the Hertfordshire Minerals Plan. Although the site is not an allocated site for waste management, policy within the Council's Waste Local Plan allows for sites that are not allocated to be developed for waste purposes providing that proposals can demonstrate that such a development is in compliance with the relevant policy requirements.

Figure 1: Location and boundary of the proposed EfW facility

5.5 The proposed Facility would also provide a waste education centre for use by the Council and its partners (e.g. school and community group visits). VES's outline RPP design is shown in *Figures 2 and 3* below.

5.6 Deliverability of the Facility in relation to the Site has been discussed at length during evaluation of the RPP. This report recognises that, should the Council wish to accept the RPP proposals and complete a further Deed of Variation to the Contract (in accordance with the mechanisms in the Contract), VES would be required to obtain a Satisfactory Planning Permission ("SPP") and other necessary consents for the RPP and this will be determined by the Council's Development Control Committee in response to a planning application from VES

Figure 2: Artists impression of the facility from the rail sidings

Figure 3: Artists impression from the tow path

5.7 The Contract as amended by the RPP Deed of Variation will require VES to use "all reasonable endeavours" to obtain a SPP for the proposed RPP Facility by the agreed Planning Permission Longstop Date ("PLSD") as detailed in the Part II annex to this report. If, by the PLSD, VES have not obtained a SPP the Council will be entitled to terminate the Contract as varied for planning failure. On termination for planning failure the Council will have to pay VES compensation on

termination at the capped sums described in Table 6.2 in Appendix 6 of this report.

5.8 The Contract as amended by the RPP Deed of Variation will also provide that if the waste planning authority refuses to grant a SPP or if any SPP is called-in neither party is obliged to incur expenditure on proceedings (unless the parties otherwise agree) and the Council would be entitled to terminate the Contract for planning failure (as in 5.7 above).

5.9 Whilst it is not necessarily appropriate for this report to conclude on planning deliverability matters, it is important that Members are aware of the key planning matters associated with delivering the Facility such as the local traffic impact. These matters are explored in greater detail as Appendix 1 to this report.

6. RPP technology

6.1 Like the New Barnfield solution, the RPP solution proposes the use of a two-line EfW Facility albeit with a significantly reduced overall nominal capacity than the New Barnfield solution (which was sized in total at 380k tonnes per annum with a 352k tonne per annum EfW solution post a mechanical pre-treatment process ("MPT") at the 'front-end').

6.2 The RPP proposed annual capacity of 320k tonnes per annum would generate 30.2 MWe (net, with no heat export). This is the equivalent of providing a comparable quantity of electricity into the National Grid as used by 69,000 households.

6.3 The RPP provides evidence of VES' and the proposed construction sub-contractor's good track record of providing this type of solution specifically, moving grate EfW technology would provide a robust and well proven solution for Hertfordshire.

6.4 The technology choice would achieve almost complete landfill diversion (c. 97% of all residual waste LACW received). The exception is the Flue Gas Treatment ("FGT") residues which are proposed to be sent to the Minosus underground storage facility (within a rock salt mine in Cheshire) for disposal. This operation attracts Landfill Tax and thus, in the officer's view, should not be considered as diversion.

6.5 Incinerator Bottom Ash ("IBA") would be removed from the Site by rail and processed off-site to provide useable aggregate substitute material. The planned removal of IBA (c. 20% of the nominal capacity or 67k tonnes in 2021/22) by rail from the Site prior to being processed into useable products is seen as

advantageous in mitigating potential impacts on the surrounding highways network. The rail sidings may further be utilised during the construction period and potentially for third party waste inputs to the Facility.

6.6 The proposed RPP Facility comprises a storage capacity in the waste bunker that satisfies the Council's requirements for projected delivery volumes and the flexibility of a two-line facility provides comfort as to the availability of the Facility to receive and process Hertfordshire's Contract waste.

6.7 A comprehensive contingency plan is outlined in the RPP allowing access to VES's other UK EfW facilities during planned maintenance periods (without any additional cost to the Council) thereby maintaining high landfill diversion rates for the Council.

6.8 The RPP solution would meet existing legislation with respect to air emission levels and allowances in the design have been made for implementing a system to meet more stringent emission limits should they be introduced at a future date.

6.9 Due to the size of the Site, VES's approach to the recovery of recyclables at the Facility does not include pre-treatment through MPT as was the case with the New Barnfield solution. Instead, an overband magnet would provide ferrous metal recovery from the IBA stream. This is common practice for similar facilities and has been taken into account in the financial assessment of the RPP.

6.10 The proposed Facility's power export is considered favourably by the Council's technical advisors, Ramboll. The lack of MPT has reduced the parasitic load (the amount of power the plant itself needs to operate) and the Facility would generate increased power output from a reduced tonnage in comparison to the New Barnfield solution.

6.11 Overall the proposal does not include heat recovery, apart from a very small amount that may be utilised for heating the visitor centre. The proposal includes steam extraction to enable heat utilisation at a future date as is common place with recently constructed facilities of this nature in the UK. VES would undertake a process of discussion with proximate third parties that could potentially require heat input from the Facility prior to any planning application. If secured this would also be dealt with by a "gain share" approach (see section 9.9).

6.12 The RPP proposes a change in the technology and construction sub-contractor to a joint venture between B&W Volund and the Lagan Construction Group. Ramboll consider that there is a strong track record of the individual contracting parties and sub-suppliers working together on comparable schemes and this adds assurance and confidence to the RPP.

6.13 When developing a solution for residual LACW treatment, one of the fundamental technical decisions is the selection of the most suitable technology. There are a range of technologies to consider and, more specifically in relation to thermal treatment options, there appears to be a choice between well proven advanced moving grate systems and the less proven alternative technologies. To determine if the Contractor's technology choice is suitable for the Council, it is important to look at a range of key criteria as the facility will be operated for many years, needing to provide a reliable and robust service. This is outlined further in Appendix 2 which also includes references in relation to emissions and public health issues.

6.14 In summary, the technology proposed for the Facility is a proven, reliable and flexible waste combustion recovery process and the RPP proposals have been designed to be compliant with the relevant legislative requirements by applying appropriate environmental controls, clean-up systems, monitoring and operating procedures to minimise emissions. Air emissions controls are set out in the RPP submission alongside the Contractor's monitoring systems so that the impact of emissions (air, soil, surface/ground water) to the environment and human health will be minimised. An environmental permit application would be submitted by VES to the Environment Agency for approval during the planning process addressing all relevant parts of the applicable legislative requirements.

7 Policy and legislation

7.1 The RPP is designed to meet the requirements of the Contract (which is to manage all residual waste remaining following recycling, composting and other waste minimisation initiatives of the HWP). The proposals have been tested against the aims and objectives of the Joint Municipal Waste Management Strategy 2007 (JMWMS) for Hertfordshire and can be summarised as set out below:-

7.1.1 The JMWMS seeks to promote the waste hierarchy through waste prevention and minimisation, reuse, increased recycling, composting and recovery of the remaining residual waste;

7.1.2 Continued reliance on landfill is not sustainable due to its contribution to global warming, scarce local availability and severe financial penalties (this latter link to the Waste Emissions & Trading Act 2003 has since been repealed but key environmental and commercial drivers remain);

7.1.3 The strategy was developed following consultation with local stakeholders;

7.1.4 Locally generated waste needs to be handled locally; and

7.1.5 The Facility is part of a wider solution and does not prohibit future plans for waste reduction initiatives or increases in the levels of re-use, recycling and composting.

7.2 Whilst not part of the Waste Local Development Framework, the Council's Waste Spatial Strategy (revised July 2009) was prepared on behalf of Hertfordshire County Council as Waste Disposal Authority. This document sets out the long term requirements of the Waste Disposal Authority as an input to the Minerals & Waste Development Framework process.

7.3 The Waste Spatial Strategy (WSS) identifies the location of some existing waste management facilities used by the Waste Disposal Authority and illustrates specific drive time isochrones to identify areas of search for potential new household waste recycling sites, waste transfer stations, in-vessel composting sites, waste bulking/depot facilities and residual waste treatment facilities.

7.4 To facilitate the more sustainable disposal of LACW in the County to 2031 and negate the need for continued waste export, the WSS considers that the following new and improved waste management facilities are likely to be required and, specifically in relation to the RPP proposals, this included "A new major waste treatment facility, two new waste transfer stations and retention of 70,000 tonnes per annum of landfill capacity for untreatable Municipal Solid Waste at 2031/32, rising to 75,000 tonnes per annum at 2039/40."

7.5 Should the RPP proposals proceed, this would remove the need for the Council to provide an Eastern Waste Transfer Station with local district and borough council's providing direct delivery to the Facility. It would also remove the assumed retention of some landfill capacity for "untreatable waste" as the Facility would manage and process all Contract waste for Hertfordshire.

7.6 The RPP proposals have been considered alongside current and potential future legislation pertaining to the waste management industry, such as the new circular economy package that was adopted by the European Commission on the 2 December 2015 as outlined in further detail in Appendix 3.

7.7 The RPP proposal will fulfil the requirement for a major waste treatment facility identified by the strategy and facilitate more sustainable management of waste in the county. It will also do this without undermining the prospects for increased recycling and composting due to its flexible yet robust technology that can adapt to changing waste composition and calorific values. This will enable it to maintain operational capacity through acceptance of "top-up" compatible Commercial Waste and Industrial Waste (but being less reliant on these 'other' inputs than the New Barnfield proposals) whilst also achieving wider landfill diversion benefits for those waste streams.

8 RPP environmental assessment

8.1 Information provided in the RPP submission demonstrates that it is a good environmental choice as it will virtually end reliance on environmentally damaging landfill and substantially reduce CO_2 equivalent emissions.

8.2 As is the case when considering the environmental impact of major infrastructure such as that proposed, the RPP provides a performance comparator using the Waste and Resources Assessment Tool for the Environment ("WRATE") which is a Government tool for assessing climate change impact. VES have provided a comparative effect of delivery of the Facility against both a baseline of landfill disposal and the Council's existing interim contract arrangements (a mixture of EfW and landfill).

8.3 WRATE analysis carried out by VES shows a reduction of 116 million kg CO_2 equivalent per annum when compared to landfill and a reduction of 80 million kg CO_2 equivalent per annum when compared to existing arrangements. To provide some context, 80 million kg CO_2 is broadly the equivalent of all the emissions generated by the Council's street lighting[3] over a 5 year period.

8.4 Combined Heat and Power delivery would further improve the environmental performance of the Facility by making more efficient use of the heat created during the process. The RPP Facility is designed as heat 'enabled'.

8.5 DEFRA published their "Energy from Waste – A Guide to the Debate" in early 2013 to provide what is described as a 'starting point for discussions about the role energy from waste may have in managing waste'. As such the DEFRA guide does not seek to provide an authoritative set of answers, rather it highlights the issues for discussion, the options available and the process for decision making.

8.6 The key messages of the DEFRA guide are that 'residual' waste is mixed waste that cannot be usefully reused or recycled. Whilst some recyclable materials may remain in the waste, they are too contaminated for recycling to be economically or practically feasible. DEFRA also identifies an alternative way of describing residual waste as being 'mixed waste which at that point in time would otherwise go to landfill'.

8.7 DEFRA acknowledges that increased prevention, reuse and recycling will have a downwards effect on the amount of residual waste requiring treatment in the

[3] The highways electricity figure is sourced from the Council's energy management team and includes street lighting, signs, signals, subway pumps and electric charging points and is recorded as 15,837,000 kg CO_2 equivalent in 2014.

future, however energy from waste will remain important. In this regard, the guide states that the historical image of energy from waste is now outdated and a new generation of energy from waste plants are helping to continue the drive towards better, higher-efficiency energy from waste solutions. Under the Waste Framework Directive facilities are assessed on the level of energy produced from waste they achieve. High efficiency facilities achieve R1 status allowing them to be classed as recovery facilities rather than disposal facilities. The Contractors RPP proposals will achieve R1 status and will therefore be considered as a recovery process under the Waste Framework Directive, therefore, it can be considered reflective of this recognised trend.

8.8 The conclusion drawn by the DEFRA guide is that energy from waste has less adverse carbon impact than landfill.

8.9 With regard to emissions, the DEFRA guide states that as a result of the clean-up measures in modern energy recovery facilities “all the waste gases emitted from the plant meet the very tight limits placed on them by EU legislation. As a result, Energy from Waste Plants contribute only a small fraction of both local and national particulate and other emissions”.

8.10 With regard to health, DEFRA recognises that the potential health implications of emissions are often a focus of concern, hence the need for tight regulation. However the Health Protection Agency (HPA - now Public Health England) also reviewed the wide ranging research undertaken, in order to examine the links suggested by some, between emissions from EfW facilities and the effects on health. The guide identified that the conclusions of the HPA are that, well managed facilities make only a small contribution to local concentrations of pollutants (and whilst not discounting the possibility of such small additions having an impact upon health, if they exist, they “are likely to be very small and not detectable”). This conclusion has been further confirmed by the first data released from the findings of a more recent study commissioned by the HPA successor body - "Public Health England".
http://www.sciencedirect.com/science/article/pii/S1352231015300753

8.11 Initial informal consultation with Hertfordshire’s Director of Public Health indicates his preliminary conclusion is that health risks are minimal. However, he has indicated that he will need to consider the matter further and will also seek a formal view and advice from Public Health England. He has undertaken to provide more considered feedback (informed by advice from Public Health England) which will be published in due course.

8.13 In summary, the RPP proposals are a key part of a solution for Hertfordshire's LACW which remains after continued and improved efforts on waste prevention and diversion through re-use, recycling and/or composting are made. The continued use of landfill, scarcity of local disposal options, and therefore ever increasing distances to access final disposal points, leads to a reasonable conclusion that the proposed Facility represents the right environmental solution for treating Hertfordshire's residual LACW closer to where it is produced.

9 RPP financial proposals

9.1 The savings position of the New Barnfield solution was £667m and this was reduced by in the order of £217m due to the loss of PFI credits. It should be noted that this initial assessment was a comparison against the 2010 set of interim disposal contracts which included a significant use of landfill as a means of disposal.

9.2 The current set of interim disposal contracts (2014) were procured at a time when new EfW facilities in the surrounding area (i.e. Oxfordshire and Buckinghamshire) were nearing completion and there was competition for residual LACW in order to assist in the EfW commissioning process. The disposal rates are considered favorable in the context of the current market and savings in the waste management disposal budget of £1.5m have been delivered.

9.3 It is considered unlikely that further savings could be achieved with a future extension of these short term contracts and an increase in contract rates per tonne in the region of 10% is in-line with average market gate fees. This pressure has been identified through the Council's Integrated Plan process and was confirmed in discussions with existing interim service providers.

9.4 The Council holds the risk under the Contract for movement in the foreign exchange rate. Since financial close in 2011, when the EUR:GBP position was 1.1946, movement in the foreign exchange rate has generally been in the council's favour. As was the case for New Barnfield, the RPP proposal has a significant proportion of its capital expenditure priced in Euros and so the risk profile remains the same. A stronger pound against the Euro will make the final facility price cheaper and vice versa.

9.5 The RPP figures are calculated using a baseline of 1.35 EUR:GBP (a baseline of 1.35€ was used following analysis of 2015 rates up to the time of submission).

9.6 Given the Site is owned by Tarmac and would be secured by VES on a long lease ("the Headlease"), on the Expiry Date of the Contract the Site and Facility

would not be in the Council's control. At the end of the Contract Period, VES retain the Facility and would be able to continue to operate it for the final ten years of its planned life (40 year total) based on 100% non-contract waste. This allows a longer depreciation period for the Facility which is reflected in a lower unitary charge for the Council (the calculated gate fee per tonne in accordance with the payment mechanism in the Contract). This also means at the end of the Headlease term that VES rather than the Council is responsible for decommissioning the Facility and returning the Site to Tarmac as a "flat site".

9.7 To retain flexibility in relation to the Facility, an "option" has been negotiated to make a one-off capital investment 2 years prior to the end of the Contract Period to purchase the remaining term of the Headlease from VES. The Council would then be Tarmac's tenant rather than VES and could use the Facility for the remainder of the Headlease term of the Facility. The Council has no obligation to exercise this option and the projected payment for the option is set out in the Part II Annex to this report.

9.8 In order to test the outputs from the affordability modelling a number of sensitivities were run to ascertain the economic impact different factors would have on the overall affordability. The sensitivities modelled covered a range of areas; differences in indexation, differences in the proportion of waste that could be treated at an EfW facility and, where a range of information was provided in response to the market consultation exercise, differences in haulage and gate fees.

9.9 In carrying out such sensitivities it should be noted that the RPP is effectively being considered on a 'worst case' scenario, the financial position reflects only the guarantees within the RPP financial model and contract payment mechanism and is not a position based on projections of any of the 'gain-share' opportunities within the Contract. 'Gain share' opportunities in the Contract exist where any income above the guaranteed threshold in the Contract payment mechanism is shared between VES and the Council. In contrast, the credible alternatives have been considered in a more optimistic manner in order to robustly challenge the base case for the RPP.

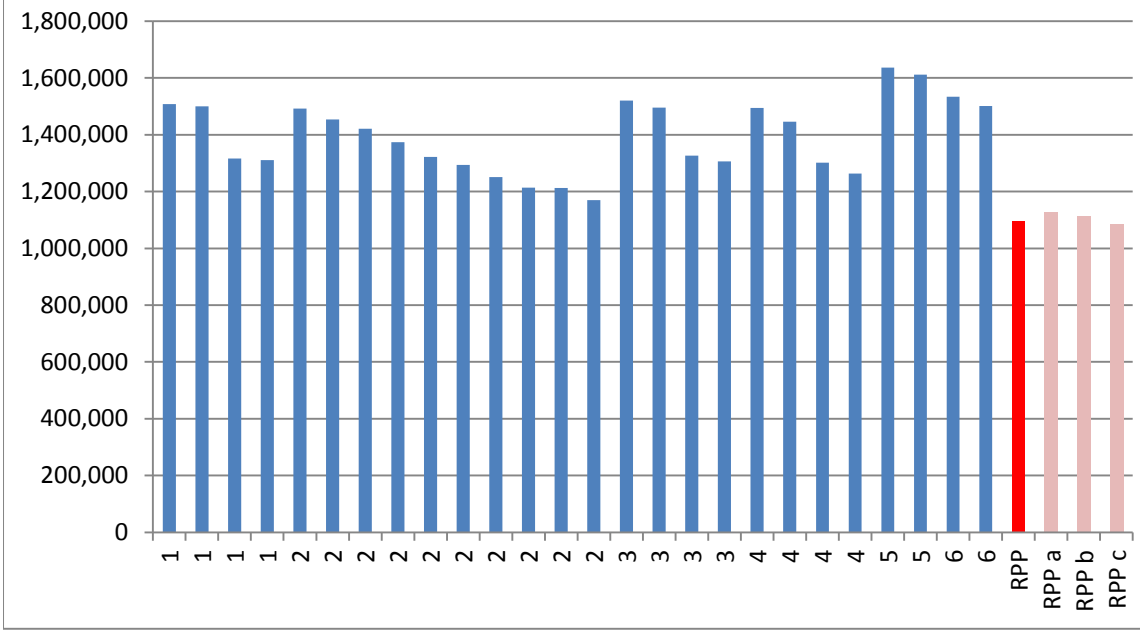
9.10 Further detail of the assumptions and modelling are detailed in Appendix 5 and the outputs are summarised in *Figure 4*. In all scenarios tested, the RPP is projected as the most financially efficient for the Council.

9.11 The RPP was also tested against the original 2011 Contract final tender prices and, due to indexation, whilst the cost to the Council of the RPP is higher than the original New Barnfield proposal as tendered, the cost of the RPP is better value for money than if the New Barnfield proposal had been delivered post

approval following the call-in and public inquiry (using the delay indexation provisions in the Contract).

9.12 The financial benefit of having an MPT was considered as part of the Council's review of the RPP. A review of the MPT within the New Barnfield plan showed that the additional costs associated with running the MPT marginally outweighed the financial benefits such as increased recycling revenue and increased third party waste capacity. The reduction in market rates for recyclates as compared to 2011 means that an MPT in the RPP would be unlikely to make a financial contribution to the project and would most likely increase the Council's forecast costs. That said it is site limitations and not financial considerations that meant an MPT could not even be considered.

Figure 4: Cost of Residual Waste Disposal over 30 year period (£,000)



Key to modelled Credible Alternative Scenarios	
1.	EfW solution with multiple suppliers
2.	EfW solution with a single supplier
3.	RDF solution with multiple suppliers
4.	EfW/RDF combination
5.	Solution using the WRAP EfW median gate fees
6.	Solution using the WRAP MBT/MHT median gate fees
RPP	RPP and foreign exchange rate sensitivities (RPPa to RPPc)

9.13 The cheapest credible alternative modelled was Scenario 2, an EfW solution with a single supplier. As can be seen in Table 1, even when using the most

optimistic assumptions for the scenario, the RPP is better value. The RPP financial assessment indicates that it is forecast to be £72m better over 30 years compared to the best case for Scenario 2. Compared to the average and worst case of Scenario 2 the RPP is £210m and £395m better respectively.

9.14 It is now the case that the first 'band' of 180k tonnes of waste delivered per annum into the Facility would be unindexed, i.e. at a fixed cost for the 30 year operational period and at a price that compares well with the current market and prices from the market engagement exercise. This provides the Council with an incentive to continue to build on the good work to date to prevent and divert residual LACW by supporting recycling and composting as part of a linked solution. It also does so within a reasonable timeframe towards the proposed national target years.

Table 1: Cost of residual waste disposal of the RPP against the cheapest credible alternative

Scenario (£1000s)	Seven Years		Fifteen Years		Thirty Years	
	Residual Waste Disposal costs (NPV[4])	**Cost advantage of RPP (bid)**	**Residual Waste Disposal costs (NPV)**	**Cost advantage of RPP (bid)**	**Residual Waste Disposal costs (NPV)**	**Cost advantage of RPP (bid)**
Single EfW - Highest cost	225,000	**-15,000**	549,000	**-82,000**	1,492,000	**-395,000**
Single EfW - Average (median)	222,000	**-13,000**	518,000	**-51,000**	1,308,000	**-210,000**
Single EfW - Lowest cost	219,000	**-9,000**	485,000	**-18,000**	1,170,000	**-72,000**
RPP @ 1.25	211,000		479,000		1,128,000	
RPP @ 1.30	210,000		473,000		1,112,000	
RPP @ 1.35 (RPP bid price)	210,000		467,000		1,098,000	
RPP @ 1.40	209,000		462,000		1,084,000	

9.15 The comparative value for money of the RPP versus other options is due to a combination of factors.

9.15.1 A local solution reducing haulage costs

9.15.2 Commitment by the Council to a long term contract for the majority of the capacity (and a GMT)

9.15.3 VES's return requirement reflects the fact that a Council led project presents less risk than a merchant project

9.15.4 Partial indexation of the Council's unitary charge

[4] Net Present Value (NPV) is the present value of future costs.

9.15.5 Technology solution is efficient meaning electricity generation is high

9.15.6 The Council is sharing the planning risk (if planning permission is not granted the capped termination cost applies)

9.16 In addition to the value for money reasons in 9.15 above, the revenue sharing clauses on third party waste and electricity (over guaranteed Council income levels) have the potential to provide additional beneficial financial opportunities for the Council.

9.17 The credible alternatives are market price solutions (even for medium terms) where the provider takes most of the risks. In the RPP, shared risks are significant contributors to a more bankable solution and better value for money for the Council.

9.18 In conclusion, a comparison of the RPP with the market engagement responses has been limited to deliverable and realistic returns from industry participants which are capable of providing a solution for Hertfordshire's residual waste from 2018 and/or 2021 (the end of extended current arrangements). It shows that, although credible alternative options are available, the application of full or partial indexation within those arrangements and the increased haulage costs to access the alternate facilities confirms that the most financially beneficial approach is to proceed with the RPP.

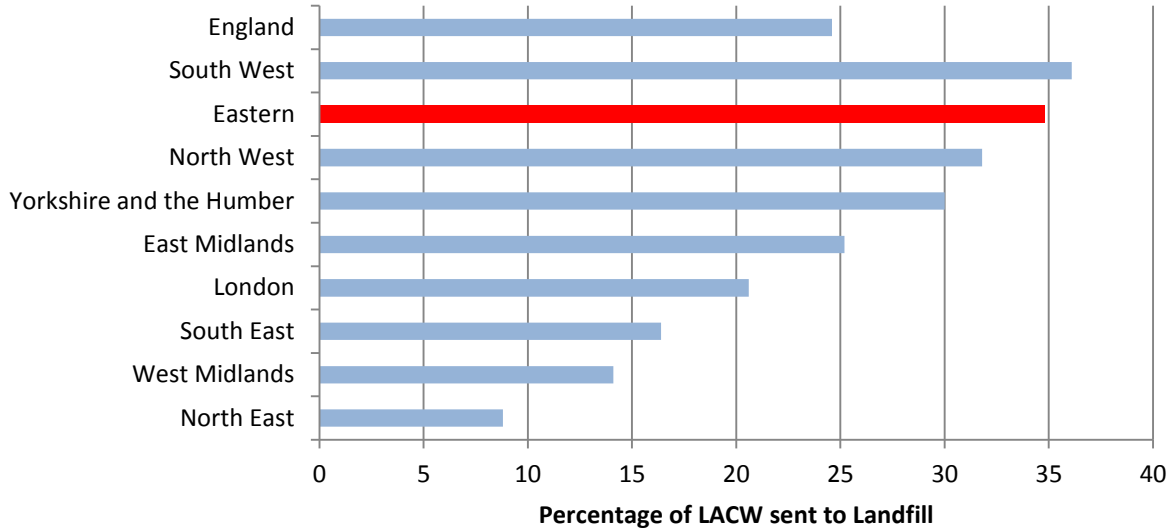
10 Defra statistics and capacity gap

10.1 Statistics from the national waste management reporting system (WasteDataFlow) for 2014/15 have recently been released by Defra. They show that, provision of EfW facilities varies by region. As summarised in *Figure 5*, the Eastern region retains a comparatively high use of landfill in comparison to regions in the North or Midland areas of England.

10.2 There are a number of industry bodies predicting that the UK will fail to provide the infrastructure that it requires in order to meet the national targets for diversion of waste from landfill. However, Defra's preferred assessment of the national capacity gap relies on the established industry consultancy firm, Eunomia who suggest there will be an excess of capacity in the UK.

10.3 Eunomia produce a report every 6 months to assess if the UK is still on course to exceed the waste infrastructure it will need to meet future national targets. The latest update to the "Eunomia Residual Waste Infrastructure Review" was issued on 27 December 2015 and maintains that, *"The UK is on course to hit its targets. This is especially true if it is to achieve the higher levels of recycling envisaged in the European Commission's Circular Economy Package, but remains true at lower recycling rates"*.

Figure 5: Regional Percentage of Local Authority Collected Waste Sent to Landfill 2014/2015



10.4 The Eunomia report states that *"capacity of facilities either currently operational, being built or having reached financial close and expected to be operational by 2020/21, combined with anticipated waste exports, will total 23.1 million tonnes per annum of demand. Fully utilised, this will exceed the 22.7 million tonnes of residual waste expected to be produced in the same year"*.

10.5 It is interesting to note that, in contrast to some of their previous publications, the Eunomia report applies assumptions for an increase in household waste growth (a 0.5% year on year increase) and commercial waste (a 0.5% year on year increase). It assumes industrial waste will reduce (a 1% year on year reduction).

10.6 In summary, it may or may not prove to be the case that the UK meets its targets but the Eastern region retains a comparatively high level of landfill and the Council faces competition to access to a limited number of regional facilities. The recently released Defra statistics suggest that, nationally and in overall terms, waste growth is occurring, analysis of the Defra statistics for the Eastern region demonstrates similar levels of overall waste growth. Table 2 shows the level of growth in England and the Eastern region.

Table 2: Waste growth					
England (,000's)	**2012/13**	**2013/14**	**Percentage change**	**2014/15**	**Percentage change**
Total LACW	24,955	25,518	2.25%	25,737	0.86%
LACW residual	14,379	14,587	1.45%	14,670	0.57%
Total household waste	22,580	22,967	1.71%	23,169	0.88%
Household residual waste	12,821	12,987	1.30%	13,052	0.50%
Eastern Region (,000's)	**2012/13**	**2013/14**	**Percentage change**	**2014/15**	**Percentage change**
Total LACW	2,794	2,877	2.94%	2,904	0.95%
LACW residual	1,465	1,482	1.19%	1,498	1.04%
Total household waste	2,616	2,685	2.64%	2,706	0.76%
Household residual waste	1,347	1,363	1.16%	1,372	0.66%

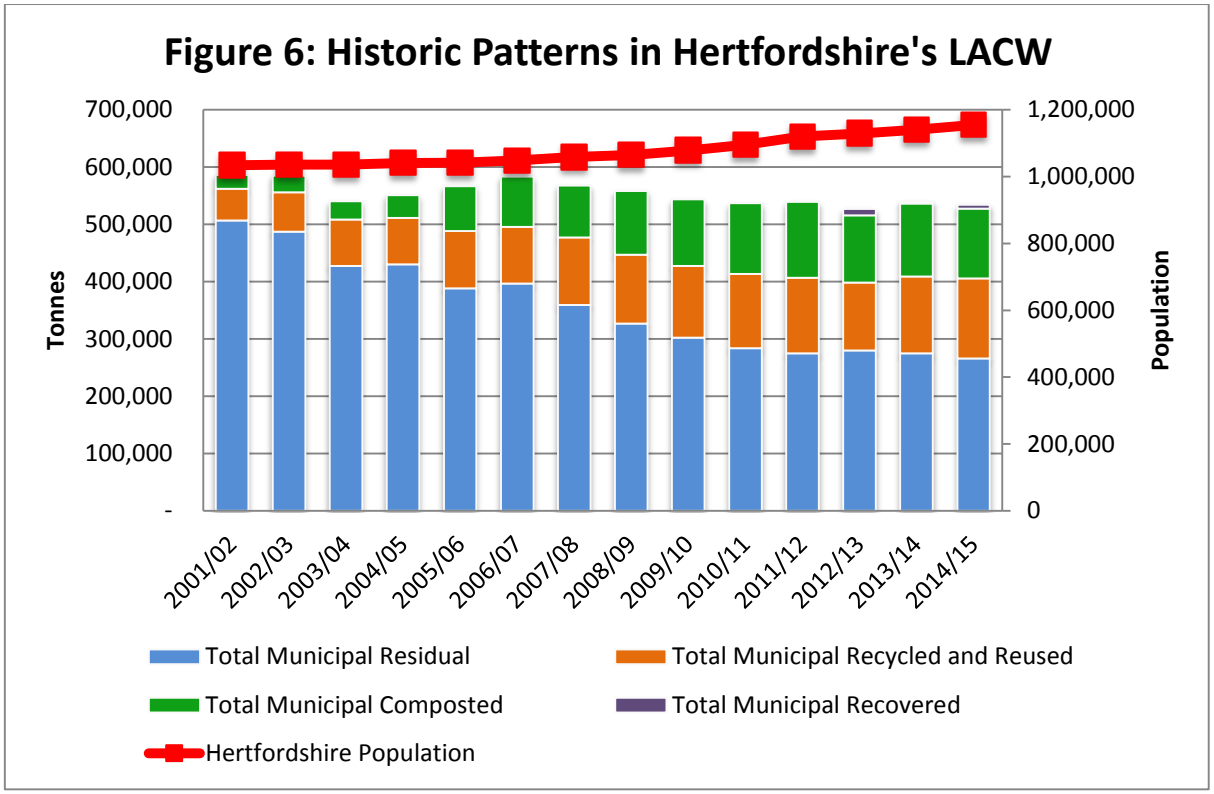
11 Hertfordshire's residual LACW

11.1 In 2014/15 Hertfordshire County Council disposed of c. 534,000 tonnes of LACW, c. 266,000 tonnes of which was residual LACW requiring disposal. *Figure 6* shows the quantity of LACW in each year since 2001/02.

11.2 It should be noted that since 2001/02 significant improvements have occurred in the quantity of material separated for recycling and/or composting due to implementation of new services in kerbside collection and at household waste recycling centres. This is particularly pleasing considering the increasing population in the County over the period shown.

11.3 Despite improvements in recycling there remains a significant quantity of material that must be disposed and/or treated and it is becoming increasingly more challenging to deliver further improvements in these times of fiscal austerity, future population pressure and when the majority of the 'easy wins' have already been delivered. The County's recycling rate has remained relatively static since 2011/12 at or just under 50% of household LACW.

11.4 As acknowledged by Eunomia in their December 2015 report, predictions in future waste volumes cannot be an exact science and there are many factors to take into account such as further gains (or losses) that might be possible in recycling and waste minimisation, the state of the economy, services, future targets and population pressure.



11.5 To inform the RPP and market consultation exercise, officers have produced an updated waste flow model that takes into account recent and known changes in kerbside collections in Hertfordshire and improvements in separation for re-use, recycling and composting. Planned alternate methods of treatment for suitable parts of the residual waste stream e.g. street sweeping diversion have also been modelled. Extracts from the new wasteflow is set out in Table 3 below and shows a reduction from the levels previously estimated when producing an outline business case for PFI credits that fed into the procurement for the Contract.

Table 3: Waste flow

Contract Year	Residual Contract Waste projection (tonnes per annum)
2015/16	258,000
2020/21	266,000
2030/31	291,000
2050/51	340,000

11.6 In modelling future waste growth, officers have assumed that Hertfordshire will continue to invest and work on waste minimisation initiatives and that this will successfully mitigate increases in waste associated with economic growth. The projections are therefore limited to future housing growth using the adopted and/or latest projections of the district and borough local plan commitments for housing numbers.

11.7 Discussions with VES in relation to the RPP concerned a Facility that is sized for the Council's needs and less reliant on third party waste input. This concluded with VES' proposal of a Facility sized at 320k tonnes per annum but with an obligation to dispose of volumes up to the current Contract requirements relating to New Barnfield of 352k tonnes per annum should waste volumes prove higher in the long term at no extra cost. The reduced GMT (Guaranteed Minimum Tonnage) level of 135k tonnes per annum was also settled as a further significant improvement for the Council during RPP discussions.

11.8 Projections on Hertfordshire's residual waste growth must be considered in context with the major service changes at the kerbside in recent years. This is detailed further in Appendix 4 and summarised in table 4 below.

Table 4: Residual waste growth by Hertfordshire's WCAs

	2012/13 to 2013/14	2013/14 to 2014/15	2014/15 to 2015/16 (Qtrs 1 to 3)
All WCA's (including service changes)	-0.93%	-0.67%	-0.01%
WCA's (excluding service changes)	+1.81%	+0.98%	+1.72%

11.9 The volumes of residual waste that have been used in the RPP are now based on a more comprehensive set of services at the kerbside across Hertfordshire and have been tested against a range of sensitivities to challenge the suitability of the proposed Facility to meet Hertfordshire's needs. The detail of these sensitivities is also detailed in Appendix 4. This shows that, of the scenarios tested, there is no scenario where the anticipated level of residual waste fails to meet the GMT presented by VES in the RPP.

11.10 Whilst these projections suggest that the GMT set in the RPP proposals is set at a level that represents a very low risk of breach, and is not at a level that inhibits the desire to improve the proportion of material that is prevented, separated for re-use or diverted for recycling or composting, it cannot be absolutely guaranteed that the Council will provide the GMT throughout the Contract period. At the same time, the GMT is commonly linked to the unitary charge payments in contractual financial models and lower GMTs are typically reflected in higher prices paid as it is seen as a risk transfer for the contractor to source higher volumes of third party waste to meet the optimum performance level of a facility.

11.11 Should the Council fall short of the GMT the Contract contains mechanisms that, in the first instance, require VES to source waste from its own or third party sources ("Substitute Waste") in accordance with an annual plan, thereafter, the Council may source waste itself to fulfil any shortfall. With consideration of VES'

local and national commercial operations, the RPP provides substantial further assurance that VES have more than sufficient commercial waste under their control to meet any shortfall that may arise, however unlikely this is currently believed to be.

11.12 Analysis summarised in *Table 5* below shows the recycling rate that would need to be achieved if 135k tonnes per annum (reduced GMT agreed for the RPP) of residual waste was generated by the Council according to the revised Wasteflow projections.

Table 5: Recycling rate if the GMT was met but not exceeded

	2015/16	**2020/21**	**2030/31**	**2050/51**
Recycling Rate should 135,000 tonnes per annum of residual waste be produced	74.79%	75.97%	78.02%	81.21%

11.13 In summary, whilst improvements in the reduction of residual LACW have been made, there is currently underlying residual waste growth in Hertfordshire most probably linked to an improving economy and increased provision of housing. As recent waste compositional analysis shows, further improvement can still be made although this requires investment and efforts from partner authorities and residents to be delivered and the GMT is set at a level that would enable all Hertfordshire authorities to deliver significant further increases in the proportion of LACW that is prevented, re-used or diverted for recycling/composting.

12 Commercial implications

12.1 The RPP solution will be delivered through the current Contract with VES but to give effect to the RPP certain changes are proposed to the Contract. Key contractual changes are described in Appendix 6 to this report.

12.2 The RPP maintains the Contract services requirements and Contract targets with a number of improvements to the commercial terms for the Council. The proposed solution also offers flexibility in relation to the Facility at the end of the Contract Period.

12.3 As the Contract was a PFI contract and the Council was to be in receipt of a Waste Infrastructure Grant from Defra, the Contract continues to be on terms consistent with the Defra model contract for waste infrastructure projects (WIDP contract) and is consistent with HM Treasury's guidance on PFI contracts that was in place when the Contract was entered in 2011 (guidance now withdrawn). The risk allocation in the Contract was described in the report to Members at the time of the procurement in April 2011.

12.4 The risk allocation assumed in the Contract is not impacted by the RPP proposal. The changes proposed to be made to the Contract to bring the RPP into effect are consequential on the RPP. There are some changes that represent an improved commercial position for the Council but overall the changes are considered to be either of no commercial significance or their overall impact on the Council is neutral. The changes proposed to the Contract are not substantial.

13 Financial implications

13.1 The financial implications for the Council associated with the RPP are described in section 9 above.

13.2 There are no changes to those outlined in the Council's integrated plan for the short term pressures due to increased landfill tax, gate fees post natural expiry of the existing interim contracts and the cessation of the long term Edmonton EfW arrangements. The planned savings for reduced use of advisors in the RWTP budget would be delivered should the Council decide to accept or reject the RPP.

13.3 If the RPP is rejected and the Contract terminated the Council will have to pay VES contract termination costs in the order of £1.2 million. As part of the risk management process for the RWTP a special contingency was created to deal with contract risks. In the event of termination following rejection of the RPP, this reserve could be used to meet termination costs. These costs are not payable if the Council accepts the RPP unless VES fail to obtain planning permission for the RPP solution at which time the Contract would be terminated.

13.4 The provision of infrastructure such as waste transfer stations requires capital investment. A high level estimate of cost for constructing an eastern transfer station has been identified (in the region of £6 million) and this funding is already built in to the Council's capital programme. Capital investment of a similar scale would be required for the development of a northern transfer station which would need to be included within the Integrated Plan Process. Should the RPP proceed and achieve planning permission, part of the identified £6 million for the eastern transfer station could be released and a new bid placed to fund a transfer station in the north of the County.

14 Legal Implications

14.1 In accordance with the Contract, the Council may now either accept the RPP or reject it. If the Council accepts the RPP it will need to bring the RPP into effect by varying the Contract and entering into other associated ancillary documents.

14.2 If the Council accepts the RPP the Council and VES will enter in to Deed of Variation to the Contract (the RPP Deed of Variation). The RPP Deed of Variation will recite key contextual matters including that:

14.2.1 The RPP Deed of Variation is entered pursuant to the RPP mechanism included in the Contract;

14.2.2 VES' parent company guarantor consents to the variation and simultaneously enters a new parent company guarantee on substantially the same terms as the "agreed form" in the Contract

14.2.3 A restated Contract is attached updating the Project Agreement and relevant Schedules to be varied by the RPP.

14.3 In addition to the RPP Deed of Variation, VES and the Council will also enter into a number of ancillary documents to give effect to the RPP. The key documents are:

14.3.1 VES will enter into a new construction sub-contract with its selected construction sub-contractor for the RPP. The construction sub-contract is in substantially the same form as the sub-contract entered with the 2011 Contract;

14.3.2 The Council will enter into a collateral warranty with the construction sub-contractor to give the Council direct rights against the construction sub-contractor in certain scenarios. The collateral warranty is in substantially the same form as the warranty entered with the 2011 Contract;

14.3.3 VES' parent company will provide a parent company guarantee in support of the RPP and VES to which the Council is also a party. The guarantee is in substantially the same form as the guarantee entered with the 2011 Contract;

14.3.4 VES and the Council will enter into various property agreements between themselves and with Tarmac to give effect to the property arrangements.

14.3.5 VES and the Council will enter into a deed of appointment for an independent certifier who will be engaged to sign off various construction and commissioning tests for the Facility. The deed of appointment is in substantially the same form as the deed envisaged for the 2011 Contract.

14.4 In considering the variations to the Contract proposed by the RPP the Council needs to consider the provisions of the Public Contract Regulations 2015 and in particular regulation 72 which deals with modification of contracts during their term. Regulation 72 permits contracting authorities to modify (vary) a contract

without a new procurement where the modification (irrespective of its value) is not substantial within the meaning of regulation 72(8) of the Public Contracts Regulations 2015. The proposed changes to the Contract to bring the RPP into effect are not substantial within the meaning of regulation 72(8) of the Public Contracts Regulations 2015 so that the Council is entitled to accept the RPP and enter into the RPP Deed of Variation without re-procuring the Contract.

14.5 If the Council rejects the RPP it will need to terminate the Contract and pay compensation on termination to VES. The compensation payable on termination is detailed in section 13 of this report (Financial implications).

14.6 Further detail on the legal implications associated with the RPP is included in the Part II annexe.

15 Equalities implications

15.1 When considering proposals placed before Members it is important that they are fully aware of, and have themselves considered the equality implications of the decision that they are making.

15.2 Rigorous consideration will ensure the proper appreciation of any potential impact of that decision on the Council's statutory obligations under the Public Sector Equality Duty. As a minimum this requires decision makers to read and carefully consider the content of any Equalities Impact Assessment (EqIA) produced by officers.

15.3 The Equality Act 2010 requires the Council when exercising its functions to have due regard to the need to (a) eliminate discrimination, harassment, victimisation and other conduct prohibited under the Act; (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it and (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it. The protected characteristics under the Equality Act 2010 are age; disability; gender reassignment; marriage and civil partnership; pregnancy and maternity; race; religion and belief, sex and sexual orientation.

15.4 An Equality Impact Assessment (EqIA) has been undertaken in the case of rejection or acceptance of the RPP and is detailed at Appendix 7.

16 The assessment of alternative options available to the Council

16.1 In order to inform the discussion and evaluation of the RPP, officers have held informal discussions with representatives from a number of existing and potential service providers to understand the alternative options available and a formal market engagement exercise was carried out.

16.2 A Prior Information Notice ("PIN") was placed in the Official Journal of the European Union (OJEU) on the 19 September 2015 which invited suitably experienced and interested suppliers to complete a questionnaire. The purpose was to more formally collect information on industry ideas of how to deal with Hertfordshire's residual LACW, an indication of prices, available capacity and their view on preferred technology and contract length to provide the Council with best value and performance.

16.3 To assist respondents in submitting their proposals, the Council's updated waste arisings and recent compositional analysis accompanied the PIN.

16.4 The responses from this exercise were returned on 23 October 2015 and further clarification was obtained to assist in the Council's affordability analysis and to inform the Member decision making process.

16.5 Responses were received from 10 companies with a combination of 14 solutions presented in total. In summary:-

16.5.1 All of the responses proposed direct thermal treatment or pre-treatment followed by thermal treatment.

16.5.2 9 of the 14 solutions indicated that they could accommodate the whole of the County's projected waste volumes.

16.5.3 A clear indication was given that longer term contracts would offer the Council the best value for money with 5 of the 10 companies offering services over any contract length (7 years - short, 15 years - medium or 30 years - long)

16.5.4 Those responses which involved pre-treatment and export to mainland Europe indicated a preference for short or medium length arrangements.

16.5.5 Of the 14 solutions presented, 4 were for pre-treatment of residual waste into a Refuse Derived Fuel (RDF) prior to thermal treatment, 4 were for Design Build Finance and Operate arrangements and 6 were for service contracts for thermal treatment or a combination of thermal treatment and landfill provision.

16.5.6 All responses indicated that road transfer was the most likely mode of access albeit one did have rail access (if an available option) and those indicating export to mainland Europe required waste shipping arrangements to access final disposal facilities.

16.7 The Council does not currently have access to move residual LACW by rail. The uncertainty over delivery and accurately forecasting the level of funding that may be required for development of rail access restricted the assessment of credible alternatives to accessing facilities by road (as is currently the case) and the assumption that a network of supporting infrastructure in the North and East of the County could provide such transfer arrangements or be configured to develop a processing facility to produce Refuse Derived Fuel (RDF) for export.

16.8 Recently, regional capacity in the existing interim disposal arrangements has been reduced since the time of market consultation. Specifically, the Ardley EfW facility in Oxfordshire (http://www.letsrecycle.com/news/latest-news/viridor-secures-two-residual-waste-deals/) has signed two new long term contracts for 130k tonnes per annum to add to a previous commercial arrangement with a service provider for 50k tonnes per annum. This increases the risk that, without a local solution, part or all of Hertfordshire's residual waste will need to be transported increasing distances to access suitable disposal facilities. Extensions to the existing interim disposal contracts are at the sole discretion of the Council but the future use of the facility for the medium or long term is less than certain.

16.9 In considering whether to model a new Design, Build, Finance and Operate (DBFO) option as a comparator to the RPP officers carried out an assessment of the key value drivers to determine whether a clear case can be made that a new DBFO project could improve upon the RPP offer provided by VES. Based on the considerations in Appendix 5, officers are of the view that a new DBFO procurement would not offer a sufficient expectation of comparable or better value than the RPP as to merit detailed modelling.

16.10 The prices presented by suppliers in the market engagement exercise were used to develop a number of potential, credible alternatives to feed into the affordability modelling to establish the long term costs of disposal and how these costs and alternative arrangements compare to the RPP presented by VES. The feedback from the market was grouped into the following credible alternative scenarios:

Scenario 1	EfW solution with multiple suppliers
Scenario 2	EfW solution with a single supplier
Scenario 3	RDF solution with multiple suppliers
Scenario 4	EfW/RDF combination
Scenario 5	Solution using the WRAP EfW median gate fees[5]
Scenario 6	Solution using the WRAP MBT/MHT median gate fees

[5] WRAP (2014) Gate Fees report 2013/2014 – Comparing the Costs of Alternative Waste Treatment Options
EfW post–2000 facilities: Median gate fee £94
MBT/MHT: Median gate fee £84

16.11 It is important to note that the market consultation exercise is not a formal procurement exercise and as such the information supplied is not binding and was supplied in good faith at the time of the exercise being carried out. Further detail of the exercise is contained within the Part II Annex to this report.

17 Development of Supporting Infrastructure

17.1 The Council owns a waste transfer station, Waterdale, in Garston, north Watford that currently bulks and transfers the residual LACW from seven of the ten district and borough councils. Further transfer stations are being considered, one in the north of the county and one in the east of the county. These are intended to supplement any final residual waste disposal services by transferring the waste collected by the district and borough councils that are an unreasonable travel time and/or distance from the final disposal point.

17.2 Currently c. 60,000 tonnes of residual LACW are directly delivered to a number of disposal points by the district and borough councils e.g. the Westmill landfill in Ware and Edmonton EfW in North London. The development of waste transfer stations is planned such that they coincide with expiry of the current contracts to ensure continuity in disposal service provision should the Council decide to reject the RPP.

17.3 Land in the County Council's ownership, behind the Ware Household Waste Recycling Centre, has been identified as a potential location for the development of an 'Eastern' transfer station and ground investigation works to establish suitability for development has been completed.

17.4 The next phase of this work is the detailed design stage prior to any application for planning permission. The project is identified in the Council's capital programme and could provide transfer facilities for East Herts District Council, Broxbourne Borough Council and potentially Welwyn Hatfield District Council. A newly developed site would also provide a more modern, fit for purpose and better equipped Household Waste Recycling Centre to serve residents of Ware, Hertford and the surrounding areas.

17.5 A site search has been carried out in the north of the county and has identified a range of potential sites. Although deliverability and the timing of any potential planning application are some way off and would need to be mindful of the North Herts District Council local plan process. There is currently no approved business case or capital allocation for such a development.

17.6 Continuity of service provision for North Herts District Council is provided by the existing Burymead Road transfer facility in Hitchin but the medium to long term

suitability of this location is not considered sustainable to meet future demand by either the District or County Council.

17.7 It should be noted that, whilst the outcome of the New Barnfield proposals do reinforce the need for a transfer facility in the north of the county, should Members approve the RPP this would remove the requirement for an Eastern Transfer Station should the Facility be delivered. This has been factored into the affordability modelling as local district and borough councils can be directed to deliver their collected residual waste to the Facility rather than have the Council incur the cost of waste transfer although, due to the length of time and lack of certainty in the planning application process, the Eastern Transfer Station is being progressed for the purpose of business continuity.

18 Overview and next steps

18.1 In overall terms, the RPP can be considered to present the Council with:-

18.1.1 A site that, with suitable mitigation, is deliverable and is locally situated to improve the existing position on waste transfer.

18.1.2 A technology that is robust, proven and, as part of a total solution, would divert waste from landfill whilst not preventing planned and future improvements in accordance with the waste hierarchy.

18.1.3 A solution that complies and is in accordance with applicable legislative requirements.

18.1.4 A solution that represents an improved environmental impact assessment than existing arrangements.

18.1.5 A proposal that represents the best value for money solution from those presented as credible alternatives by the market and provides long term surety of budgeted costs for residual LACW treatment.

18.1.6 A solution that meets the long term needs of the Council in regard of future pressures in population.

18.1.7 A solution that is deliverable within the terms of the existing Contract with VES.

18.2 With consideration of the existing interim contracts that allow for disposal options up until March 2021, the Council is in a position to seek the delivery of the RPP to provide best value, local delivery and long term surety in residual LACW treatment and, should the Facility not be delivered, the Council would have sufficient time to procure arrangements through an alternative procurement strategy informed by the recent market engagement exercise.

18.3 Although the commercial deal to reflect the RPP is now settled with VES on a subject to contract basis, the following areas are outstanding at the time of writing this report:

18.3.1 Conclusion of formal legal drafting of the RPP and associated Deed of Variation and ancillary documents that will be required to give effect to the RPP; and

18.3.2 Conclusion of formal legal documentation between VES and Tarmac in relation to the Site and lease structure described in section 14 of this report.

18.4 Subject to the satisfactory conclusion of the above, it is the intention that the RPP process will be concluded by 31 March 2016. If, however, the relevant documents to give effect to the RPP have not been settled by that date it will be necessary that a further short deed of Variation is agreed and entered into with VES to enable a further, short period for the documents to be settled prior to RPP acceptance. It is proposed that in these circumstances the date for acceptance of the RPP be extended to 30 June 2016.

19 Background papers

Waste Management Cabinet Panel:	**Date**
Waste Procurement Project	11/01/2008
Waste Procurement Programme Feasibility Study November 2007-February 2008	04/03/2008
Waste Procurement Project	29/04/2008
Waste Procurement Project – Progress Report	09/07/2008
Options for Future Waste Management: Outline Business Case	07/10/2008
Hertfordshire Waste Procurement Programme – Progress Report	06/01/2009
Hertfordshire Waste Procurement Programme – Progress Report	14/04/2009
Hertfordshire Waste Procurement Programme – Progress Report	09/09/2009
Hertfordshire Waste Procurement Programme – Progress Report	18/11/2009
Hertfordshire Waste Procurement Programme	09/07/2010
Hertfordshire Waste Procurement Programme	28/04/2011
Residual Waste Treatment Programme – Recycling and Energy Recovery Facility Timetable	07/03/2013

Highways and Waste Management Cabinet Panel

Residual Waste Treatment Programme – Options Available to the County Council Following the Secretary Of State's Decision to Refuse Planning Permission for a Recycling and Energy Recovery Facility at New Barnfield, Hatfield	04/11/2014

Community Safety and Waste Management Cabinet Panel

Residual Waste Treatment Programme Update	21/10/2015

Cabinet:

Options for Future Waste Management: Outline Business Case	20/10/2008
Options for Future Waste Management: Outline Business Case – Responding to Defra's Clarifications	19/01/2009
Hertfordshire Waste Procurement Programme	16/06/2009
Hertfordshire Waste Procurement Programme	19/07/2010
Hertfordshire Waste Procurement Programme	28/04/2011
Residual Waste Treatment Programme – Options Available to the County Council Following the Secretary Of State's Decision to Refuse Planning Permission for a Recycling and Energy Recovery Facility at New Barnfield, Hatfield	10/11/2014
Residual Waste Treatment Programme – Variation of the RWTP Contract	14/12/2015