

<b>Subject:</b>	<b>Mercury Abatement</b>		
<b>Date of Meeting:</b>	<b>9<sup>th</sup> February</b>		
<b>Report of:</b>	<b>Strategic Director, Resources</b>		
<b>Lead Member:</b>	<b>Cabinet Member for Finance &amp; Central Services</b>		
<b>Contact Officer:</b>	<b>Name:</b>	<b>Paul Holloway</b>	<b>Tel: 292005</b>
	<b>Email:</b>	<b>paul.holloway@brighton-hove.gov.uk</b>	
<b>Key Decision:</b>	<b>No</b>		
<b>Ward(s) affected:</b>	<b>All</b>		

**FOR GENERAL RELEASE****1. SUMMARY AND POLICY CONTEXT:**

- 1.1 As a crematorium owner, Brighton & Hove City Council is obliged to comply with mercury emissions legislation<sup>1</sup> which becomes active on the 31<sup>st</sup> December 2012. The new legislation states that across Europe, 50% of all crematorium mercury emissions must be abated from this date. This increases to 100% abatement by 2020.
- 1.2 The current cremator plant at Woodvale was installed in 1996/97, with one additional cremator installed in 2000. It is recommended by the company who provided the plant, that we should consider replacing it after around 15 years.
- 1.3 Cremators at Woodvale are therefore nearing the end of their economic life. Current maintenance costs are increasing each year. There is an opportunity to upgrade the facility and improve the quality of service and facilities when addressing the new mercury abatement legislation requirements. Additionally, there is also potential to reduce energy consumption significantly when installing the new plant, making use of latest technologies available.
- 1.4 Mercury is a known toxin. Although present emissions meet current standards, the introduction of far more stringent and demanding standards from 31 December 2012 indicates that there is a public health benefit that can be achieved from reducing emission levels. The health impact of emissions is not localized and can affect land, water and air.
- 1.5 Overall it is considered that the reduced mercury emissions will result in a positive long-term environmental impact from this proposal.
- 1.6 The proposed project to replace the existing cremators and install compliant mercury abatement plant will be via an OJEU compliant route funded using existing Bereavement Services reserves and any necessary additional borrowing.
- 1.7 If we do not meet the Government target date of 31 December 2012 sanctions could be imposed on the City Council. This includes an enforcement notice, warning letters, suspension of the permit, revocation of the permit and surrender. These can be very

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<sup>1</sup> Process Guidance Note PG5/2 (04) and subsequent further guidance Air Quality Notes AQ1 (05), AQ13 (05) and AQ10 (07).

serious options and prohibit the use of the crematoria and have some very significant fines (up to £50,000) and potential imprisonment.

- 1.8 Due to the short timescale for implementation and other local authorities having to comply, suppliers could be under pressure to provide cremators by the necessary deadline.

## **2. RECOMMENDATIONS:**

- 2.1 That Cabinet approves the proposal for replacement of old and antiquated plant and the introduction of mercury abatement measures via an OJEU compliant tender process,
- 2.2 That Cabinet delegates authority to the Strategic Director of Resources, in consultation with the Cabinet Member for Finance & Central Services to approve the purchase and installation of new equipment up to a value of £1.2m procured directly through an OJEU compliant route,
- 2.3 That Cabinet approves the funding of £1.2m from the council's Capital Investment Programme for replacement of new cremators and mercury abatement equipment to be funded through a combination of the Mercury Abatement Reserve and borrowing.

## **3. RELEVANT BACKGROUND INFORMATION:**

- 3.1 In response to the EU legislation, DEFRA published Process Guidance Note, PG5/02(04), which states the level of mercury abatement and timescales for implementation.
- 3.2 DEFRA further issued Additional Guidance Notes AQ1(05) and AQ13(05). These clarified PG5/2(04) and acknowledged 'burden sharing' between crematoria as a possible option. Burden sharing could be between individual crematoria or as part of a national scheme.
- 3.3 In response to the burden sharing The Federation of British Cremation Authorities (FBCA) & the Cremation Society have started the Crematoria Abatement of Mercury Emissions Organisation (CAMEO). This mechanism may give Woodvale the option of selling, in effect, mercury credits to a cremator with no mercury abatement, assuming Woodvale is fitted with 100% mercury abatement. Initial values indicated by CAMEO show that it would pay circa £25 for each mercury abated cremation. (NB The revenue to BHCC was not included in the original economic analysis.)
- 3.4 The current Woodvale facility accommodates three J & G Shelton & Co Ltd Diamond 2000 EF single end cremators and a cradle (baby and NVF) cremator. The two western cremators with the baby cremator were installed in 1996/97. The eastern cremator, for which the new extension was constructed, was installed in 2000. This plant should ideally be upgraded / replaced every 15 years. The company that maintains the cremators for the council (J G Shelton) believe that realistically they will need to be replaced by the close of 2012. In addition, by the end of 2012, across Europe, all crematorium mercury emissions must be abated by 50%. This increases to 100% by 2020.
- 3.5 Woodvale generates an annual income of £770,000 at current charges for cremations, based on an average number of cremations of 1900 per annum. The council currently pays £43,000 per annum to maintain the existing plant.
- 3.6 The specification for the works will include energy efficiency measures wherever practicable including the re-cycling of excess energy from the crematorium process to heat the adjoining chapels. Due to the improved efficiency and capacity of the proposed

new plant the tender process will explore reducing the number of cremators installed to reduce energy consumption further. It will also hopefully be possible to maintain a limited cremation service during the period of time when the new plant is being installed, as careful consideration will be taken to ensure works are carried out at a time where the business is quieter (August / September).

- 3.7 The council has been planning for the replacement of the cremators and over the past five years an environmental levy of £35 has been applied to each cremation we have carried out and this has been 'put aside' to part fund the cost of the new cremators and adaptations. The current balance that has been put aside is £352,000 with an estimated additional £70,000 from this financial year (based on 2000 cremations at £35). Therefore by the end of the current financial year £422,000 could be held in reserve to part fund the cost of the replacement and adaptations. The additional monies charged in preparation for mercury abatement will also generate an additional income stream in the future, which can be used to fund borrowing.
- 3.8 Woodvale Crematorium currently maintains the market share of cremations in the city. The privately owned Downs Crematorium, adjacent to the Woodvale site on Bear Road, is operated by Dignity Funeral services (who manage some 30+ crematoria across the country). Woodvale's market share of cremations has seen a generally increasing trend over the last five years as compared to Downs Crematorium who have seen decreasing numbers.

Year	Woodvale	Downs
2005	1825	1324
2006	1815	1315
2007	1810	1682
2008	1782	1332
2009	2029	992
2010	2106	855
2011	2078	918

#### 4. PROCUREMENT TIMETABLE:

- 4.1 The deadline for installation of the abatement technology is December 2012. Benchmarking undertaken last year by Procurement against other local authorities who have installed the technology suggests that;
- there is a limited number of suppliers within the marketplace for this type of work
  - there is, on average, a 16 week lead time for the manufacture of the equipment
  - there is, on average, a 14-20 week installation time for the equipment
- 4.2 The estimated value of this project, £1.2m, is above the EU threshold for Services contracts and as such will need to be competitively tendered and OJEU compliant. Market conditions would favour the use of an Open procedure, rather than pre qualifying suppliers as in the restricted procedure. In lieu of the Open procedure the council has the option to 'call-off' from an OJEU compliant framework which will reduce the time to procure significantly. The project team are working to identify and assess suitable existing frameworks. Corporate Procurement has notified the team of the timescales above and the need to begin the procurement process as a matter of urgency.
- 4.3 Sufficient time to complete the installation to meet the deadline is a key risk with this project.

## 5. FINANCIAL & OTHER IMPLICATIONS:

### Financial Implications:

- 5.1 The purchase of new plant and equipment that addresses mercury abatement and replacement cremators is estimated to be in the region of £1,200,000 and will be funded using a combination of reserves set aside specifically for replacement equipment at Woodvale plus borrowing. The mercury abatement reserve currently stands at £352,000 with an estimated additional £70,000 contribution this financial year providing a total of £422,000 available resources. The additional £778,000 funding will be met through borrowing over a 15 year period with the borrowing costs estimated at circa £70,000 pa being met through the existing income contribution of £35 levy per cremation.
- 5.2 Any maintenance costs associated with the new equipment will be met from the existing revenue maintenance budget with potential savings being available on maintenance budgets as a result of the installation of newer equipment. The new energy efficient equipment may provide opportunities to reduce energy costs in particular heating at the Woodvale site. The new equipment will also provide the council the opportunity to reduce carbon emissions which may reduce the council's Carbon Reduction Commitment payments.

*Finance Officer Consulted: James Hengeveld      Date: 16 January 2012*

### Legal Implications:

- 5.3 The procurement of new crematorium equipment must comply with all relevant European and UK public procurement legislation, as well as the council's own contract standing orders (CSOs).

CSO 3 provides that any procurement exercise valued over £500,000 may only be authorised by the Executive. As such, Cabinet has the requisite authority to approve the procurement of replacement crematorium equipment valued at £1.2m and to delegate to the Strategic Director Resources authority, following a compliant procurement process, to approve its purchase and installation.

*Lawyer Consulted: Oliver Dixon      Date: 16 January 2012*

### Equalities Implications:

- 5.4 There are no implications for equalities with this proposal.

### Sustainability Implications:

- 5.5 Compliance with environmental legislation is of utmost importance for managing the impact council activities have on the environment. Replacing the burners at Woodvale will ensure the council complies with new legislation. There is an opportunity to make the site more energy efficient and to reduce carbon emissions by capturing 'waste heat' and using this for heating and lighting around the Woodvale complex (reducing the consumption of natural gas).

### Crime & Disorder Implications:

- 5.6 There are no implications for Crime and disorder with this proposal

### Risk and Opportunity Management Implications:

- 5.7 Efficiency of the equipment: without large scale investment ageing plant equipment will continue to cause high energy bills through inefficiency, furthermore maintenance costs will remain high due to the age and requirements of the equipment.
- 5.8 Carbon Reduction Commitment: The cost of the CRC is set to kick in and wasted carbon comes at an increasing penalty to the council.
- 5.9 Energy prices: Energy prices are set to rise by around 15% in the next year and further rises are expected across the next decade. This will lead to increased budgetary pressures if there is not the most efficient possible equipment installed.

Public Health Implications:

- 5.10 Mercury is a known toxin. Although present emissions meet current standards, the introduction of far more stringent and demanding standards from 31 December 2012 indicates that there is a public health benefit that can be achieved from reducing emission levels. The health impact of emissions is not localized and can affect land, water and air.

Corporate / Citywide Implications:

- 5.11 A demonstration of energy efficiency measures being installed in all aspects of the council. This is part of the Energy and Water Teams series of works to demonstrate improvements across the Council's portfolio.

**6. EVALUATION OF ANY ALTERNATIVE OPTION(S):**

- 6.1 The Council's Energy & Water Team have investigated an alternative funding option of an Energy Services Performance Contract (ESPC) which included the following key features:
- A potential district heating scheme to sell excess heat energy produced as a by-product of the crematorium process to partner organisations.
  - Recycling of surplus energy to heat the Woodvale Chapels, replacing the existing inefficient electric heaters.
- 6.2 Unfortunately during the investigation no suitable potential partners were identified and this option is therefore not considered to be financially viable.
- 6.3 However the potential for recycling excess energy and energy efficient measures will be considered within the proposed procurement process and included in the tender documents wherever practicable.
- 6.4 Whilst the mercury abatement technology can be retro-fitted to the existing cremators this would require substantial alterations to the existing building and would not address the issue of the cremators which are nearing the end of their useful life. This option is therefore not considered to be economically viable.

**7. REASONS FOR REPORT RECOMMENDATIONS:**

- 7.1 New legislation, coming into force on 31 December 2012, requires all crematorium operators to reduce the levels of mercury emissions from their operations by 50% initially increasing to 100% by 2020. This will require the installation of new mercury abatement plant to
- 7.2 At the same time the existing cremators have reached the end of their economic life and require replacement. Modern cremators are more efficient and fewer cremators will

therefore be needed, reducing gas consumption at the site. We are also proposing to explore other possible energy efficiency measures including re-cycling excess energy to heat the adjoining chapels.

- 7.3 It is therefore recommended that Cabinet approve the project to replace the existing cremators, install the necessary mercury abatement plant to meet new legislation and introduce energy efficient measures as detailed in the report.

## **SUPPORTING DOCUMENTATION**

### **Appendices:**

None

### **Documents In Members' Rooms**

None

### **Background Documents**