Appendix 1

Project Update

The project is currently 21 days behind schedule, this is detailed in the Indicative Project Programme R2, issued 12 January 2024 at **Appendix 2**. In this appendix, the category linked to “cremator manufacture” at RIBA Stage 4 was scheduled to start mid July 2024, this was delayed as a result of the time required to finalise contract terms.

Facultative Technologies (FT) reported during project meetings that they planned to install the first cremator November 2024. This was in advance of the Indicative Project Programme R2 issued 12 January 2024.

Due to manufacturing constraints within FT’s business further delays have resulted. The revised Installation date will now commence 1 January 2025. Details of the installation phase are detailed within the Indicative Cremator Programme at **Appendix 3**.

Energy Efficiency Performance

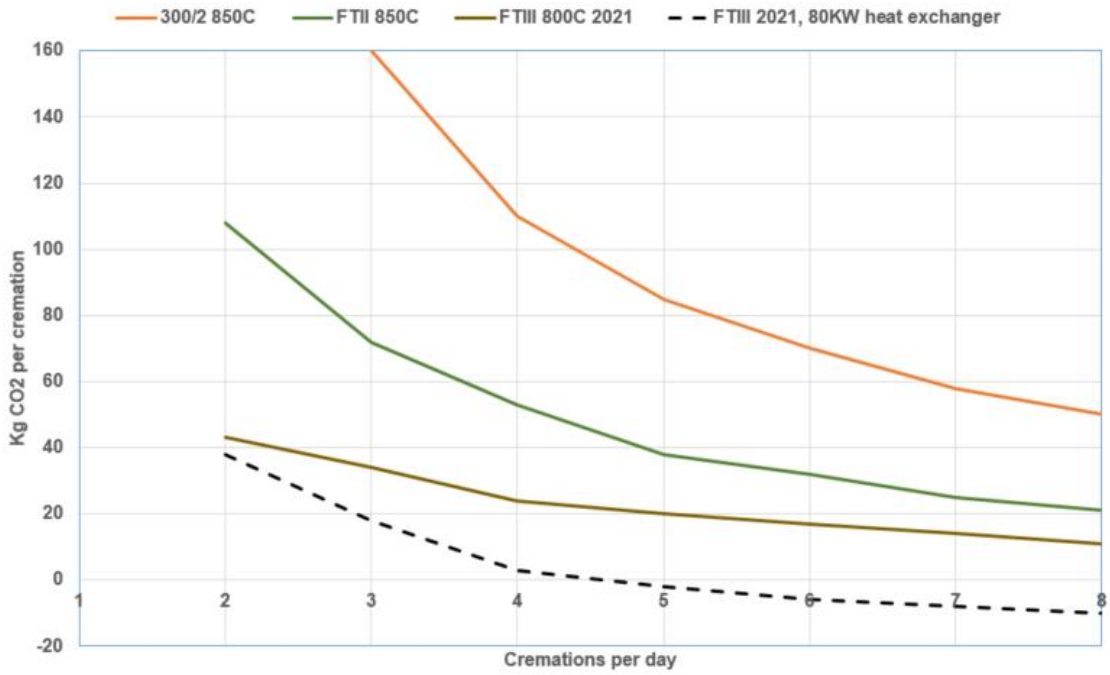
Bramcote Bereavement Services currently operate an Evans 300/2 cremator and FTII cremator.

The Evans 300/2 operates on three burners. It contains a large secondary combustion chamber (SCC) operating at 850 degrees Celsius with a residence time of two seconds. This, along with the requirement to fully preheat the cremator each day increases gas consumption three-fold.

The FTII has two burners, not three, with much better insulation and improved controls to reduce energy use. This cremator operates at 850 degrees Celsius in the SCC as this was prior to abatement plant being introduced.

The new cremators, FTIII wide chambered (for large coffins) cremator operates on two burners with further improved insulation and when operated through the abatement plant with the SCC temperature requirement reducing to 800 degrees Celsius achieves improved energy consumption.

The graph below details the performance of the currently operated Evans 300/2 and FTII cremator model and the planned FTIII model with heat recovery to be installed at Bramcote Crematorium. Also indicated is the FTIII model with no heat exchange to demonstrate how the installation of the heat exchange further advances efficiency.



The performance figures indicate that not only is the new FTIII more energy efficient in its use of gas than the current equipment operated but also significantly reduces the level of gas consumption the more cremations per machine are undertaken. The method of operating one cremator and maximising number of cremations per day was adopted in 2023 as reported to the Joint Committee, this approach reduced gas usage and resulted in significant savings.

The installation of the Plate Heat Exchange (PHE) will achieve a further reduction in the crematoriums carbon footprint. Cremators with mercury abatement require the flue gases to be cooled for the abatement process. This cooling means significant quantities of heat energy is available for other purposes, the easiest of which is heating the crematorium buildings. The heat recoverable from the abatement process is on average 270kW. The dotted lines show the effect of 80kW heat recovery on the carbon footprint. It demonstrates that the crematorium will be operating at better than carbon neutral after 280 minutes of continuous operation of each cremator per day.