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AA1000448 – Metropolitan Waste and Resource Recovery Group – request for information

MWRGG seeks authorisation for 30 years for the provision of the advanced waste processing services. MWRGG's application for authorisation states at section 2.3 that this period is:

'based on information available regarding the terms required to support the investment required for comparable processing facilities in Victoria and other territories [redacted] *)*

1. Please provide the information referred to above, and any other information available to MWRRG which supports MWRRG's claim that a 30 year period of authorisation is necessary to facilitate investment.

Response

The request for a 30-year period of authorisation is based on the consideration of the following inter-related factors:

- The time required to conduct the procurement and appoint the contractor(s)
- The time required for the contractor(s) to deliver the facility(s)
- The period of operation of the facility(s) needed to support the capital investment in construction.

Details supporting each estimated period are set out below, with reference where appropriate to facilities in Victoria and in other jurisdictions.

Time required to conduct the procurement and appoint the contractor(s)

The research undertaken to support the business case for the Advanced Waste Processing (AWP) procurement explored how municipalities in Victoria and other jurisdictions have procured infrastructure and services to divert residual municipal solid waste (MSW) from landfill through resource recovery.

MWRRG has successfully led three collaborative procurements on behalf of metropolitan councils for solutions to process source separated garden and food waste collected by councils:

- The NW Organics Processing Contract
- The SE Organics Processing Contract
- The Eastern Organics Processing Contract.

All three organics procurements took the form of a single bidding phase followed by negotiations with the preferred tenderer. The NW Organics procurement took approximately 2 years to

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complete. The SE Organics procurement took nearly four years to complete. The Eastern Organics procurement commenced in 2015 and is still in progress with one of the preferred tenderers.

With respect to the procurement timelines for AWP solutions, there are limited points of reference within Australia – the most recent being the 400,000 tonnes per annum Kwinana Waste to Energy facility in Western Australia. This market-led solution is currently in construction, following more than a decade of negotiation between the project proponent (originally Phoenix Energy, but now led by Macquarie Capital) and a group of councils.

MWRRG has considered the process and timeframes associated with AWP procurements in other jurisdictions, particularly those undertaken by municipalities in the UK (see the list in attachment A).

Most of the UK's AWP procurements took the form of multi-stage procurements where the councils' outputs specifications were progressively refined following the receipt of bidders' responses and competitive dialogue.

Typically, council-led procurements in the UK for AWP solutions have taken between 2 to 3 years to complete, although at least one procurement took approximately 7 years to complete.

MWRRG is proposing a two-year procurement timeframe for the SE Metropolitan AWP procurement, which will employ a multi-stage process. This timeframe may be extended if necessary, to ensure the quality of the procurement process and its outcomes.

Time required for contractor(s) to deliver the facility(s)

The time required to design, construct and commission an AWP solution is generally around three years. In the case of the Four Ashes facility in Staffordshire, UK, the detailed design phase commenced in July 2010 after contract award, construction began in October 2011 and waste was first processed through the facility in November 2013.

It is normal practice for the contractor to secure the necessary planning and licence approvals in parallel with the design phase. However, it is not unusual for the approval process to delay the delivery of a facility. For example, in the case of the Allerton Waste Recovery Park in North Yorkshire, UK the successful tenderer was appointed in 2011 to design, build and operate the facility for the duration of the contract.

A planning application was made in late 2011 and planning permission for the facility was approved in October 2012, but the decision was subject to three judicial reviews and the threat of a public enquiry before the project was given final approval in September 2014. Building work on the plant began in March 2015. Construction and commissioning of the plant was completed in 2018.

MWRRG is anticipating a 3-year period for the delivery of the facility(s), and this is predicated on the contractor(s) securing the necessary approvals in parallel with the design and commissioning phases.

Time required to effectively manage the cost of the facility(s)

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Typically, the capital costs for municipal AWP solutions require a 20 to 25-year contract term, which allows councils to pay affordable monthly service charges to cover the costs associated with AWP solutions.

The Staffordshire and North Yorkshire facilities referred to above are both 25-year concession contracts. The Kwinana facility in WA will be operated by Veolia under a 25-year agreement. Australian Paper is proposing a 25-year contract period for its proposed Maryvale facility.

The application states in 5.1:

'the tender process will be designed to encourage the provision of more than one Facility, ideally with each Facility being delivered and operated by a different supplier'

2. Please provide further information about how the tender process will be designed to encourage the provision of multiple facilities.

At this stage, no decision has been made in respect of the scale, number or location of facilities that are required to manage the councils' waste. Similarly, the councils do not have a preferred choice of technology, and respondents to the Expression of Interest stage will be free to provide information about solutions (including combinations of technologies) that are likely to achieve the councils' objectives.

Moreover, one of the principal drivers for the councils is to use the procurement process to ensure that the new infrastructure that will be delivered will include contingency arrangements to address periods of scheduled maintenance as well as outages due to breakdowns. This may take the form of contracts with multiple providers and the delivery of multiple solutions.

The councils' requirements will be informed through a multi-stage procurement process. A staged process is proposed because it:

- Supports progressive development of the councils' functional and operational requirements (including the number and scale of facilities required to manage the councils' waste)
- Balances councils' interest in driving innovation and maintaining competitive tension through the procurement process with the investment required by tenderers to prepare bids.

Through stage 1 of the procurement (Expression of Interest) the councils will seek information about technology solutions that have been deployed by respondents in Australia or overseas which process residual MSW. This information will include the scale of solutions that respondents have delivered for municipal clients.

Based on an assessment of tenderers' responses against the evaluation criteria, a shortlist will be developed. Shortlisted tenderers will then move forward to Stage 2 of the procurement (Outline Solutions).

Prior to the commencement of stage 2, MWRRG will provide an outline functional and technical specification against which tenderers will be invited to provide responses. This specification may indicate the number of facilities that the councils are willing to consider.

At stage 2, MWWRG and the Councils will explore opportunities associated with the delivery and operation of potential AWP solutions up to the maximum capacity required to manage the total anticipated quantity of MSW. The primary purpose of stage 2 is to progress the development and assessment of proposed solutions and engage with bidders on the requirements.

Tender responses will be required to provide concept designs, indicative pricing and other associated information in response to the outline specification. In addition, it is anticipated that tender responses will need to detail, among other things:

- Indicative pricing for service delivery
- Potential scale and location of the proposed solution(s)
- Approach to the achievement of planning and regulatory approvals
- Management of environmental objectives
- Transport and transfer proposals
- Management of process outputs, including any recovered energy and/or recyclables, and process residues
- Approximate construction and commissioning timelines
- Flexibility of the proposed solution to adapt to changes in waste composition and tonnages
- Outline service delivery schedules

Based on an assessment of tender responses a shortlist will be developed. Shortlisted bidders will then move forward to stage 3 (Detailed Solutions).

Prior to the commencement of stage 3, MWRRG will provide a detailed functional and technical specification and draft contract documentation against which tenderers will be invited to provide responses. By stage 3 the councils should be in a firm position to indicate how many facilities will be required to manage their waste.

Tenderers to stage 3 will be requested to provide:

- Detailed designs and pricing
- Details of their proposed site
- Fully completed schedules, in relation to the design, construction, commissioning and operational stages of the proposed solution(s)
- Estimated annual availability (uptime) and contingency arrangements of the proposed solutions.

Based on an assessment of tenderers' responses, a shortlist will be developed. Shortlisted tenderers will then move forward to the next stage.

If required, a final specification will be prepared prior to the commencement of stage 4 (Final Tenders) of the procurement.

Tenderers shortlisted at stage 3 will be requested to provide their:
- Final designs
- Detailed pricing
- Firm offtake arrangements for materials and/or energy recovered from Contract waste.

Based on an assessment of tenderers' responses, a preferred tenderer or tenderers (if the Councils wish to pursue multiple solutions) will be identified as the Preferred Tenderer(s).

The application further states in 5.1:

'MWRRG's analysis of the market dynamics for certain types of Advanced Waste Processing services is that the scale of investment likely to be required to undertake certain types of Services will necessitate aggregation of waste on a sub-regional level'

3. Please provide further details of the analysis done by MWRRG that supports this statement, including any underlying research.

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As explained in the response to question 2, MWRRG and the councils are seeking to use the procurement process to gain information from the market regarding the number and scale of facilities required to manage their residual MSW.

Collectively the Councils are anticipated to be managing around 500,000 tonnes per year of residual MSW by 2021, increasing to more than 700,000 tonnes per year by 2046 as a result of population growth within their local government areas.

The quantities of waste that individual councils will be able to make available to a contractor are generally less than 50,000 tonnes per year (using estimates for 2051).

Through its research, MWRRG understands that advanced waste processing facilities managing residual MSW exist at a range of a scales. However, it appears that there are stronger economies of scale associated with larger facilities, which enable industry to offer lower fees per tonne of waste processed.

Moreover, research indicates that small-scale facilities are generally unattractive to providers as the business development and bidding costs associated with a small facility (say 50,000 tonnes per year with a capital cost of around $60 to 70 million) are similar to those associated with larger facilities (for example 300,000 tonnes per year with a capital cost of $300+ million).

[redacted] it is expected that there will be stronger interest from industry (and better outcomes) if the prospect of a large quantity of waste can be offered through a collaborative procurement, rather than procuring individually or in smaller groups.

Project/Location	Classification - PFI, PPP or M	Status	Year Operational (FY Ending)	Operational Capacity (ktpa)	Plant Type - efw, bmbt, lfmbt, mt
Avonmouth MBT (New Earth Solutions)	PPP	Operational	2012	372	BMBT
Avonmouth, New Earth Solutions Waste Management Project -	PPP	Operational	2014	73	EfW
Basingstoke - Chineham (Project Integra)	PPP	Operational	2003	99	EfW
Biffa Leicestershire plant - Newhurst Quarry	M	Consented	2020	350	EfW
Birmingham - Landor Street (see also Rugby)	PPP	Operational	2013	165	BMBT
Birmingham Energy from Waste Project - Tyseley	PPP	Operational	1997	361	EfW
Bolton Energy from Waste Project - Raikes Lane	PFI	Operational	2002	86	EfW
Buckinghamshire County Council RW (EfW) - Greatmoor	PPP	Operational	2017	300	EfW
Cambridgeshire County Council Waste Management Project - Waterbeach	PFI	Operational	2013	200	LFMBT
Clean Power Properties Gasification Plant, Willowbrook Industrial Estate, Corby.	M	Consented	2020	150	EfW
Cornwall Council Semi-Integrated Waste Management Project - St Dennis	PFI	In Construction	2017	240	EfW
Coventry Energy from Waste Project	PPP	Operational	1975	245	EfW
Cumbria Waste North - Hespin Wood	PPP	Operational	2012	66	BMBT
Cumbria Waste South - Barrow-in-Furness	PPP	Operational	2013	50	BMBT
Derbyshire Waste Management Project - Sinfin Lane	PPP	In Construction	2017	190	EfW
Dong Bioliquid Plant - Northwich, Cheshire	M	In Construction	2017	120	BMBT
Dudley - Lister Road	PPP	Operational	1998	93	EfW
East London Waste Authority Integrated waste Management (ELWA) 1 - Frog Island	PFI	Operational	2006	180	BMBT
East London Waste Authority Integrated waste Management (ELWA) 2 - Jenkins Lane	PFI	Operational	2007	180	BMBT

East Sussex County Council and Brighton & Hove City Council - Newhaven	PFI	Operational	2012	234	EfW
Energy Works Gasification plant - Cleveland Street, Hull	M	In Construction	2019	200	EfW
Essex County Council and Southend-on-Sea - Courtauld Road	PFI	In Construction	2017	417	LFMBT
Exeter Energy From Waste - Marsh Barton	PPP	Operational	2015	60	EfW
Ferrybridge Multifuel 1	PPP	Operational	2016	400	EfW
Ferrybridge Multifuel 2 (FM2), Ferrybridge, West Yorkshire	M	In Construction	2020	570	EfW
Gloucestershire County Council Residual Waste - Javelin Park	PPP	In Construction	2020	190	EfW
Greater Manchester WDA - Longley Lane MBT	PFI	Operational	2012	110	BMBT
Greater Manchester WDA - Manchester Waste, Runcorn Phase 1	PFI	Operational	2015	325	EfW
Greater Manchester WDA - N Manchester MBT	PFI	Operational	2012	65	BMBT
Greater Manchester WDA - Oldham MBT	PFI	Operational	2012	99	BMBT
Greater Manchester WDA - Salford MBT	PFI	Operational	2013	73	BMBT
Greater Manchester WDA - Stockport MBT	PFI	Operational	2015	92	BMBT
Grimsby Renewable Power Facility - Moody Lane	M	Consented	2020	50	EfW
Hartlepool BC (Tees Valley Lines 1 and 2 (Hartlepool)) Cleveland Energy from Waste Project plus line 3 from Northumberland	PPP	Operational	1998	345	EfW
Herefordshire and Worcestershire Waste Management Project - Hartlebury	PPP	In Construction	2017	200	EfW
Hertfordshire - Ratty's Lane, Hoddesdon	M	In Construction	2018	90	EfW
Hertfordshire County Council - Hoddesdon, Rye House	PPP	Post Close	2021	320	EfW
Isle of Wight Waste Gasifier	PPP	In Construction	2018	40	EfW
Isle of Wight Waste Management Project	PPP	Operational	2000	80	BMBT
Kent - Kemsley Mill	M	In Construction	2019	550	EfW
Kent County Council Waste Management Project - Allington	PPP	Operational	2007	427	EfW

Kingsmoor Park - Carlisle, Cumbria	M	TBC	2020	160	EfW
Kirklees Waste Management Project - Vine Street	PFI	Operational	2002	127	EfW
Lakeside Energy From Waste - Colnbrook	PPP	Operational	2010	436	EfW
Leeds Residual waste Treatment Project - Cross Green	PFI	Operational	2016	165	EfW
Leicester City Council Integrated Waste Management Project - Mowmacre Hill	PFI	Operational	2006	120	LFMBT
Leicestershire County Council Waste Management Project - Cotesbach	PPP	Operational	2011	50	LFMBT
Lincolnshire CC - North Hykeham	PPP	Operational	2014	154	EfW
London Borough of Southwark Integrated Waste Management Solutions Project - Old Kent Road	PFI	Operational	2012	100	BMBT
Merseyside (Halton) Widnes Waterfront	M	Consented	2018	200	BMBT
Merseyside Waste Management Project (MWDA) - - Wilton, Teeside	PPP	In Construction	2017	440	EfW
Milton Keynes Waste Management Project - Wolverton	PPP	In Construction	2017	80	EfW
NE Lincolnshire Energy from Waste Project - Stallingborough	PPP	Operational	2004	53	EfW
Newcastle-upon-Tyne City Council Waste Management, Byker/Ellington	PPP	Operational	2006	187	BMBT
North London Waste Authority (NLWA) - Edmonton	PPP	Operational	1974	512	EfW
North Somerset UA, BOOMECO Avonmouth, Bristol	PPP	Operational	2015	50	BMBT
North Yorkshire - Southmoor Energy Centre	M	Consented	2021	280	EfW
North Yorkshire Council and City of York Waste Management Project, Allerton	PPP	In Construction	2018	320	EfW
Nottingham - Eastcroft third line	PPP	Consented	2020	140	EfW
Nottingham City Council - Eastcroft	PPP	Operational	1973	158	EfW
Nottinghamshire - Bilsthorpe Energy Centre	M	Consented	2021	117	EfW

Oxfordshire County Council PPP Waste Project, Ardley	PPP	Operational	2015	300	EfW
Peterborough City Council, Fourth Drove, Fengate	PPP	Operational	2016	85	EfW
Portsmouth, (Project Integra)	PPP	Operational	2006	198	EfW
Rookery Pit	M	Consented	2020	480	EfW
Rugby (Northamptonshire waste), Malpass Farm	PPP	Operational	2016	200	BMBT
Runcorn Phase 2 - Halton	M	Operational	2016	375	EfW
Sheffield Energy from Waste Project, Bernard Road	PPP	Operational	2006	207	EfW
Shropshire Integrated Waste Partnership Contract - Battlefield Enterprise Park	PFI	Operational	2016	90	EfW
South East London Combined Heat and Power (SELCHP)	PPP	Operational	1994	431	EfW
South London Waste Partnership (SLWP) - Beddington Lane	PPP	In Construction	2019	300	EfW
South Tyne and Wear Waste Management Partnership (STWP) - Teeside Lines 4 & 5	PFI	Operational	2015	256	EfW
South West Devon Waste Partnership (SWDWP) Waste Management Project - Devonport	PFI	Operational	2016	245	EfW
South Yorkshire waste (BDR) - Bolton Road, Manvers	PFI	Operational	2016	286	BMBT
Southampton - Marchwood (Project Integra)	PPP	Operational	2005	198	EfW
Staffordshire Waste Management Project - Four Ashes	PFI	Operational	2014	325	EfW
Stoke on Trent Energy from Waste Project - Campbell Road	PPP	Operational	1997	174	EfW
Suffolk Waste Management Project - Great Blakenham	PFI	Operational	2015	269	EfW
Surrey, Shepperton Eco Park - Charlton Lane	PFI	In Construction	2018	60	EfW
Swindon Borough Council (SBC) - Chaney Manor	PPP	Operational	2014	48	BMBT
Tyseley - APP gasification plant	M	Consented	2020	50	EfW
Wakefield - South Kirkby	PFI	Operational	2016	146	BMBT
Walsall EfW - BH Energy Gap	M	Consented	2020	300	EfW
West London Waste Authority (WLWA) - SITA Severnside	PPP	Operational	2017	350	EfW

West Sussex - Enviropower, Lancing Combustion Plant	M	Operational	2009	60	EfW
West Sussex - Grundon plant	M	Consented	2020	140	EfW
West Sussex County Council Waste Management, Brookhurst Wood	PPP	In Construction	2017	327	BMBT
Western Riverside WDA, Belvedere	PPP	Operational	2012	688	EfW
Whites Pit Waste Management Project (Waste from Poole DC) - Canford	PPP	Operational	2003	50	BMBT
Wiltshire Council Waste PPP Project, Northacre	PPP	Operational	2014	60	BMBT
Wolverhampton MBC waste to energy plant, Crown Street,	PPP	Operational	1976	108	EfW
Wren Power & Pulp - Rivenhall, Essex	M	Consented	2019	550	EfW