Request for Information

Community Development Grants Programme

Before you begin

The Department is asking for information about your project proposal so that we may commence developing a Funding Agreement should the Australian Government decide to approve funding for the project. Missing or unclear information may delay the development of the Funding Agreement.

Please note that information requested in this document may be provided to relevant Commonwealth, State and/or local government agencies, organisations and individuals, including those you identify in this proposal. The purpose of this process is to substantiate your claims and/or statements, and to verify the capacity of your organisation to manage Australian Government funds and deliver the project. It will also seek comment on the viability of the proposal and, if appropriate, identify if the proposal is eligible for funding through an alternative funding stream.

Information relating to individuals will be protected under the Privacy Act 1988. Requests for access to such information, where rejected by proponents, will be dealt with under the provisions of the Freedom of Information Act 1982.

You will need to complete Request for Information and submit with required supporting documentation to support your application.

This information enables the Department to undertake a value with relevant money assessment and provide advice to the Minister prior to an Agreement being negotiated and funding being released. The Department will contact proponents if further information is required.

Should you have any questions on how to answer any part of the Request for Information please submit your query to cdg@infrastructure.gov.au.

How do I submit my Request for Information?

Complete and submit this form via email to: cdg@infrastructure.gov.au as soon as possible.

As your response is likely to include documents that cannot be sent electronically, please submit this form and all necessary documents in hard copy to:

s.22(1)(a)(ii) Regional Programmes Branch
Department of Infrastructure and Regional Development
GPO Box 594
CANBERRA ACT 2601
REQUEST FOR INFORMATION

Organisation Details

1. Organisation details

<table>
<thead>
<tr>
<th>Legal Name</th>
<th>Paper Australia Pty Ltd</th>
<th>ABN</th>
<th>63 061 583 533</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trading Name</td>
<td></td>
<td>ACN</td>
<td>061 583 533</td>
</tr>
<tr>
<td>GST Status</td>
<td>Registered</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. What is your Business Structure?

<table>
<thead>
<tr>
<th>Local Government</th>
<th>Incorporated Association</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sole Trader</td>
<td>Partnership</td>
<td></td>
</tr>
<tr>
<td>Company</td>
<td>Paper Australia Pty Ltd is a private company limited by shares</td>
<td></td>
</tr>
<tr>
<td>Trust – provide a copy of the trust deed</td>
<td>Other, please specify</td>
<td></td>
</tr>
</tbody>
</table>

3. Your bank account details. Provide details of the bank account where project funding will be deposited

<table>
<thead>
<tr>
<th>Bank Name</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>BSB</td>
<td></td>
</tr>
<tr>
<td>Account Name</td>
<td></td>
</tr>
<tr>
<td>Account Number</td>
<td></td>
</tr>
</tbody>
</table>

4. Your Organisation’s Physical (registered) Address

<table>
<thead>
<tr>
<th>Street Address Line 1</th>
<th>307 Ferntree Gully Road</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address Line 2</td>
<td></td>
</tr>
<tr>
<td>Suburb/Town</td>
<td>Mt Waverley</td>
</tr>
<tr>
<td>State/Territory</td>
<td>Victoria</td>
</tr>
<tr>
<td>Postcode</td>
<td>3149</td>
</tr>
<tr>
<td>Organisational Email</td>
<td></td>
</tr>
</tbody>
</table>

5. Your Organisation’s Postal Address

<table>
<thead>
<tr>
<th>Postal Address Line 1</th>
<th>Private Bag 87</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postal Address Line 2</td>
<td></td>
</tr>
<tr>
<td>Suburb/Town</td>
<td>Mt Waverley</td>
</tr>
<tr>
<td>State/Territory</td>
<td>Victoria</td>
</tr>
<tr>
<td>Postcode</td>
<td>3149</td>
</tr>
</tbody>
</table>
6.  Authorised Person Contact Details  
  (e.g. CEO or the person authorised to sign Deed of Agreements)

<table>
<thead>
<tr>
<th>Title (eg. Mr/Mrs/Ms/Dr)</th>
<th>Mr</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>Peter</td>
</tr>
<tr>
<td>Surname</td>
<td>Williams</td>
</tr>
<tr>
<td>Position</td>
<td>Chief Operating Officer</td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
</tr>
<tr>
<td>Email Address</td>
<td></td>
</tr>
</tbody>
</table>

7.  Project Manager Contact Details  
  (e.g. the person who will lead the implementation of your project)

<table>
<thead>
<tr>
<th>Title (eg. Mr/Mrs/Ms/Dr)</th>
<th>Mr</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>David</td>
</tr>
<tr>
<td>Surname</td>
<td>Jettner</td>
</tr>
<tr>
<td>Position</td>
<td>General Manager – Corporate Development</td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
</tr>
<tr>
<td>Email Address</td>
<td></td>
</tr>
</tbody>
</table>

8.  Key Personnel within the Organisation who will be involved in the project delivery, other than the authorised person or project manager

<table>
<thead>
<tr>
<th>Title (eg. Mr/Mrs/Ms/Dr)</th>
<th>Mr</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Name</td>
<td>Chad</td>
</tr>
<tr>
<td>Surname</td>
<td>Leslie</td>
</tr>
<tr>
<td>Position</td>
<td>Chief Financial Officer</td>
</tr>
<tr>
<td>Telephone</td>
<td></td>
</tr>
<tr>
<td>Email Address</td>
<td></td>
</tr>
</tbody>
</table>

9.  Within the last five (5) years, has your Organisation been subject to an event such as a Government investigation, liquidation, litigation or significant change of financial position

<table>
<thead>
<tr>
<th>Event</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government Investigation on your organisation or related entities</td>
<td></td>
</tr>
<tr>
<td>Litigation or liquidation proceedings</td>
<td>No liquidation proceedings, but in the last five years the Company has been subject to some litigation relating to employee claims for worker's compensation and alleged breaches of the Occupational Health &amp; Safety Act 2004 (Vic).</td>
</tr>
<tr>
<td>Significant (adverse) change of financial position not reflected in Financial statements provided</td>
<td></td>
</tr>
<tr>
<td>Any other particulars likely to adversely affect your capacity to undertake this project</td>
<td></td>
</tr>
</tbody>
</table>
Project Details

10. Project Title – Use the title from the confirmation of the election commitment. If proposing an alternative project title, provide reasons why.

Energy from Waste Planning and Development Project

11. Project location. If a street number is not known, please provide the Lot number.

<table>
<thead>
<tr>
<th>Street Address Line 1</th>
<th>Maryvale Mill</th>
</tr>
</thead>
<tbody>
<tr>
<td>Street Address Line 2</td>
<td>Maryvale Road</td>
</tr>
<tr>
<td>Suburb/Town</td>
<td>Morwell</td>
</tr>
<tr>
<td>State/Territory</td>
<td>Victoria</td>
</tr>
<tr>
<td>Postcode</td>
<td>3840</td>
</tr>
<tr>
<td>Longitude</td>
<td>146.4457771</td>
</tr>
<tr>
<td>Latitude</td>
<td>-38.185901</td>
</tr>
<tr>
<td>Federal Electorate</td>
<td>Gippsland</td>
</tr>
</tbody>
</table>

12. Detailed Project Description (Describe in less than 150 words what the project is doing, i.e. construction of sport precinct including two Rugby League fields, six netball courts and amenities block including change rooms, public facilities, meeting rooms and cafeteria; upgrade of swimming pool to include new grandstand and children’s waterpark; or installation of lighting at sports field including purchase and installation of four poles and footings, 16 x 15000W MZ lights and 16 shields and upgrade of existing power supply on site.). PROJECT BENEFITS ARE TO BE INCLUDED AT Q14 BELOW).

The Energy from Waste Planning and Development Project will address the planning, preliminary engineering design and costing estimation phase for the potential construction of an Energy from Waste Plant at Australian Paper’s Maryvale Mill located in the Latrobe Valley of Victoria. This work is included within the Energy from Waste Feasibility Study.

The full project once operational will divert approximately 650,000 tonnes pa of residual waste from landfill to the higher order use of energy generation by thermal combustion. This energy will take two forms including steam/heat and electricity for consumption within the Maryvale Pulp and Paper manufacturing facility with the option to export to the National Electricity Grid. The resultant residual ash stream shall be targeted for re-use as road base and concrete aggregate replacement achieving an estimated overall 96% recovery/re-use of the input residual waste.

The preliminary engineering design will evaluate the two most likely technologies and develop an integrated and robust design for the facility including storage bunker, combustion lines, boilers, flue gas treatment, residual ash sorting and storage, electrical turbine, steam piping, electrical transmission, distributed control systems and associated ancillaries.

The cost estimation will assess the relevant aspects of the project including technical, commercial, social and management cost elements and complete sensitivity analyses.

Other planning elements necessary for this stage include environmental assessments and preliminary approvals, and infrastructure utilization planning and modelling.
13. If the CDG funded project is part of a larger project, please provide details below (i.e., CDG is funding one stage of a multi-stage project).

CDG is funding the planning and design, approvals and cost estimation components of this project.

14. Detail/list the economic and community benefits of the proposal (and the larger project if applicable), and how it contributes to programme outcomes.

(See Guidelines - Section 1.1 Programme Outcomes).

**Economic Benefits:**

This Energy from Waste Planning and Development Project will develop the preliminary designs, cost estimations and associated approvals work through to project evaluation and if viable establish a bankable business case.

The Energy from Waste Feasibility Study, which includes the planning and development project, will employ an estimated 36 full-time equivalent (FTE) employees and consultants engaged on various elements of the work.

The full project once operational will deliver energy security to the AP Maryvale Mill with a mix of electricity and steam to offset purchased electricity and purchased natural gas (NG). Maintaining the economic viability of Maryvale Mill will help protect the 1200 direct and 5786 flow on jobs, $911 million in gross domestic product (GDP) and $494 million in household income currently generated from this business.

In turn this will release an estimated 3.6PJ to 4.2PJ of natural gas and up to 30MW electricity back into the wider energy network. Engineering design and modelling will evaluate the optimum mix of energy including consideration of Mill reliability and stability aspects.

This will deliver an estimated 46 FTE and up to 800 construction jobs into the Latrobe Valley economy at a time of significant business closures, rising unemployment and challenging socio-economic impacts.

With an increased utilization of infrastructure such as rail this may attract other businesses and industries by leveraging that infrastructure’s economic potential.
Community Benefits

The Energy from Waste Feasibility Study will explore the community expectations and seek to engage in a collaborative manner regarding the suitability of location, design, operation, logistics and net benefit.

In addition the Feasibility Study findings will provide insight to policy makers on the viability of market forces to deliver the Advanced Resource Recovery Technologies expected to replace landfills over time.

The full project once operational will contribute to Australia’s climate change commitments with a conservative reduction in equivalent carbon dioxide emissions of more than 500,000 tonnes CO$_{2}$-e per year. Providing support for the Victorian Government’s commitment seeking to reduce the state’s greenhouse gas emissions by 15 to 20 per cent (from 2005 levels) by the year 2020, setting Victoria on the path to net zero emissions by 2050. Providing support for the Australian Government target to reduce emissions to 26–28 per cent by 2050 levels by 2030.

This will support the Latrobe City Council and surrounding regional Shires to contribute to climate change improvements with a further benefit of reducing future landfill development costs, reducing landfill legacy costs by extending the current life of the existing landfills and avoiding future landfills.

This will support recycling efforts by providing a viable alternative to landfill for the estimated 13% of residual waste dumped from Material Recovery Facilities (MRF). This will lift the total recycled/re-use performance from 87% to 98%.

The ongoing economic viability of Maryvale Mill and Australian Paper will enable future contributions to worthwhile community enterprises such as the Breast Cancer Network Australia and Planet Ark.

15. Has your organisation prepared a Business Case/Plan, or undertaken a Feasibility Study, Market Research or Community Consultation process within the last two years in relation to this project?

<table>
<thead>
<tr>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
<tbody>
<tr>
<td>If Yes, please supply details below. If documents have been developed please supply as evidence with your proposal.</td>
<td></td>
</tr>
<tr>
<td>Australian Paper has been investigating alternative baseload renewable energy options for the last several years.</td>
<td></td>
</tr>
<tr>
<td>Recently AP has conducted a table top analysis of this Energy from Waste project to establish materials, engineering and financial viability.</td>
<td></td>
</tr>
<tr>
<td>These investigations have been incorporated into the working document “Maryvale Energy Options” (copy attached). This document’s intent is to regularly update and capture organizational knowledge and learnings.</td>
<td></td>
</tr>
<tr>
<td>These investigations have been summarized in the Government presentation (Copy attached)</td>
<td></td>
</tr>
<tr>
<td>This initial work has formed the basis for a decision to move to a Feasibility Study including the planning, design, and cost estimation phase of the project.</td>
<td></td>
</tr>
</tbody>
</table>
16. How many full-time equivalent employee construction jobs and how many full-time equivalent employee ongoing jobs will be created by this project? Please note a full-time equivalent employee (FTE) is based on an average of 1,800 hours over a 48 week period.

<table>
<thead>
<tr>
<th>Planning and Development Project (within Feasibility Study)</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>How many full-time equivalent jobs will be created during construction?</td>
<td>36</td>
</tr>
<tr>
<td>How many full-time equivalent jobs will be retained as a direct result of this project?</td>
<td>0</td>
</tr>
<tr>
<td><strong>Full Energy from Waste Project</strong></td>
<td></td>
</tr>
<tr>
<td>How many full-time equivalent jobs will be created during construction?</td>
<td>500 to 800</td>
</tr>
<tr>
<td>How many full-time equivalent jobs will be retained as a direct result of this project?</td>
<td>46</td>
</tr>
</tbody>
</table>

17. Please provide the following project dates:

| Estimated Project Start Date:                  | 1 July 2017 |
| Estimated Project Finish Date:                 | 30 June 2018 |
| Estimated Construction Start Date:             | 1 Jan 2019  |
| Estimated Construction Finish Date:            | 31 Dec 2021 |

18. Indicate the current stage of development of your proposal. Provide any supporting documents if available (i.e. concept or preliminary designs, final designs, independent cost estimates, ready to commence tender/procurement process or preferred contractor selected and contracted for the project.)

<table>
<thead>
<tr>
<th>Document</th>
<th>Stage of development</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maryvale Energy Options (Pre-Feasibility)</td>
<td>Working Document</td>
</tr>
<tr>
<td>Request for Co-funding of Planning Phase</td>
<td>Working to finalise agreements</td>
</tr>
<tr>
<td>Lead Consultant Expressions of Interest</td>
<td>Complete</td>
</tr>
<tr>
<td>Support Consultants project introductions</td>
<td>Complete</td>
</tr>
<tr>
<td>Preparatory Discussions with potential Financiers</td>
<td>Complete</td>
</tr>
<tr>
<td>Preliminary Discussions with Victorian EPA</td>
<td>Complete</td>
</tr>
<tr>
<td>Support of Local Councils – Latrobe City, Wellington Shire</td>
<td>Complete</td>
</tr>
<tr>
<td>Support of Regional Entities – C4G, CFMEU, GTLC, Qube Logistics</td>
<td>Complete</td>
</tr>
<tr>
<td>Project Planning Phase Scope</td>
<td>Complete</td>
</tr>
<tr>
<td>Lead Eng Consultant Request For Tender</td>
<td>In Development</td>
</tr>
<tr>
<td>Project Risk Matrix</td>
<td>Ongoing</td>
</tr>
</tbody>
</table>

19. Identify and provide details of who will own the asset on completion. Where land and buildings are owned by a Third Party, have leasing arrangements been confirmed and secured? (Written evidence must be provided.)

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Paper Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABN / ACN</td>
<td>63 061 583 533/061 583 533</td>
</tr>
<tr>
<td>Street Address Line 1</td>
<td>307 Ferntree Gully Road</td>
</tr>
<tr>
<td>Street Address Line 2</td>
<td></td>
</tr>
<tr>
<td>Suburb/Town</td>
<td>Mount Waverley</td>
</tr>
<tr>
<td>State/Territory</td>
<td>Victoria</td>
</tr>
<tr>
<td>Postcode</td>
<td>3149</td>
</tr>
<tr>
<td>Telephone</td>
<td>(w) 03 8540 2300</td>
</tr>
<tr>
<td></td>
<td>(m)</td>
</tr>
<tr>
<td></td>
<td>(f)03 8540 2280</td>
</tr>
<tr>
<td>Leasing arrangements</td>
<td>NA</td>
</tr>
</tbody>
</table>
20. Provide detail of who will manage and maintain the project after completion and who will provide the funding.

**Paper Australia will take this project to financing stage, if appropriate.**

21. Provide information on at least three projects your organisation has managed in the past five years which have received funds from either the Commonwealth, state government or local government authority (local government authority funded projects do not apply for applicants who are a local government authority).

<table>
<thead>
<tr>
<th>Jurisdiction and managing Department Name</th>
<th>Project Name</th>
<th>Funding Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Commonwealth</td>
<td>De-Inked Pulp (DIP) Plant</td>
<td>$9,500,000</td>
</tr>
</tbody>
</table>

**Financial Details**

22. What is the total project cost? (Use GST exclusive amounts)  
**$7,500,000**

23. What is the amount of funding committed by the Australian Government? (Use GST exclusive amounts)  
**$ 2,500,000**

24. Partner funding. Complete the table with details of all confirmed funding to this project, and the status of the funding.

<table>
<thead>
<tr>
<th>Partner name</th>
<th>ABN</th>
<th>Amount (GST Excl)</th>
<th>Cash / In Kind</th>
<th>Received, Confirmed, To be confirmed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Paper Australia</td>
<td>63 061 583 533</td>
<td>$2.5M</td>
<td>Cash &amp; In Kind</td>
<td>Subject to co-funding</td>
</tr>
<tr>
<td>State Government of Victoria</td>
<td></td>
<td>$2.5M</td>
<td>Cash</td>
<td>Pending and subject to co-funding</td>
</tr>
</tbody>
</table>

25. Provide details of the arrangements in place to provide for any cost overruns or funding shortfalls on your proposed project.

This project includes a contingency of 20%.  
Any remaining contingency at project conclusion will be returned to providers at pro rata rates.

26. Have you completed a tender/procurement process and appointed a preferred contractor or do you have a cost estimate which has been independently developed/assessed?

Please provide details below:
AP has developed a detailed estimate of the project based on detailed task list and estimated hours. Over the last decade AP has invested over $1 billion in capital projects which enables a strong level of in house cost estimation capability and confidence in the estimate.
We have engaged with four major engineering consultants to establish expressions of interest. One of these organisations has indicated that our estimate is broadly in line with their expectations of such a project.
A formal request for tender document is currently in development.
27. Are there any parts of the project that have already commenced?

<table>
<thead>
<tr>
<th>No</th>
<th>Yes</th>
</tr>
</thead>
</table>

If Yes, please provide details below:
- Community and stakeholder engagement
- Desktop business case development, project financials and project outline
- Detailed feasibility cost estimation.

28. Budget Table (this is a summary of either the contracted Budget or quantity surveyor cost estimate)

<table>
<thead>
<tr>
<th>Cost Item</th>
<th>Description</th>
<th>Budget</th>
<th>Contingency</th>
<th>Item Total</th>
<th>Sub Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>s.47G(1), s.47(1)(b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Items 1, 2 and 3 capture the Energy from Waste Planning & Development Project costs $4,114,000.

* These amounts are GST Exclusive.
### List of Cost Items
- Planning / Design
- Construction/Fit-out
- Research and Development
- Plant/Equipment Hire
- Plant/Equipment Purchase
- Government Approvals
- Operating Costs (e.g. rent, computers, etc)
- Wages, salary and superannuation
- Consultants/contractors
- Project Management
- Materials
- Training
- Marketing/Promotion
- Legal/accounting
- Other Costs

**NOTE1:** Evidence of these costs are to be provided as a required supporting document (e.g. cost estimate, quotes, market comparisons, valuations, contracted cost, etc)

**NOTE2:** Australian Government Funding will not be provided for ongoing operation and maintenance costs or for salaries for existing staff members of the funding proponent organization.

### REQUIRED SUPPORTING INFORMATION
- Audited financial statements for the last two (2) years (only required for projects with a total project cost over $80,000);
- Cash flow forecasts for the next five (5) years (only required for projects with a total project cost in excess of $1.5 million for state or local government authorities or $1 million for other organisations);
- Business Plan and/or Feasibility Study (if applicable);
- Project Management Plan (if applicable);
- Market research/community consultation (if applicable)
- Asset Operations Management Plan (if applicable);
- Confirmation of partnership funding including evidence of bank borrowings (if applicable)
- Evidence of third party leasing arrangements (if applicable)
- Designs
- Cost estimate or contracted cost
Legal Authorisation

I  Peter Williams
as  Chief Operating Officer
of  Australian Paper
Private Bag 87
Mt Waverley Vic 3149

confirm that:

- I am a person authorised to make this declaration on behalf of my organisation and all relevant persons have made a full disclosure of information.
- The information provided in this form and all appended documents is complete and correct. I understand that information provided in this Request for Information will form the basis of the funding agreement and that giving false or misleading information is a serious offence.
- The Department of Infrastructure and Regional Development (the Department) is authorised to undertake the necessary steps to assess the proposal from my organisation by checking the information provided in this proposal, or by obtaining additional information from:
  - Departmental databases and records, including information related to previous funding provided to my organisation;
  - Other Australian Government agencies such as the Australian Taxation Office and the Australian Securities and Investments Commission;
  - State, Territory or Local Government agencies;
  - Law enforcement agencies;
  - Credit reference agencies;
  - Courts or Tribunals; and
  - Any other appropriate organisation, information source or person as reasonably required to perform background checks.
- I agree that the Department may arrange for an Independent Viability Assessment (IVA) of my project by an external adviser or consultant to the Department. Where applicable, the Department may request a yearly breakdown of costs for on-going operational and maintenance of the complete project for a minimum of five (5) years.
- To the best of my knowledge, I have disclosed (Part A Declaration of Conflict of Interest) all actual, apparent or potential conflicts of interest that would prevent my organisation from proceeding with the proposal outlined in this Request for Information or from entering into a Funding Agreement with the Australian Government to deliver a project which relates to this Request for Information.

s.47F(1)

Signed: ...................................................

Date: 13/6/17
Declaration of Conflict of Interest

Please complete either Part I or Part II of the Declaration of Conflict of Interest

Part I – No Known Conflict

I confirm that at the time of signing, to the best of my knowledge I am unaware of any actual, apparent or potential conflicts of interest that would prevent my organisation from proceeding with the proposal outlined in this *Request for Information* or from entering into a Funding Agreement with the Australian Government to deliver a project which relates to this *Request for Information*.

I undertake that if at any time I become aware that I, or any other employees or persons associated with the Paper Australia Pty Ltd have an actual, apparent or potential conflict of interest, then I will:

a) immediately notify the Department of Infrastructure and Regional Development in writing of that Conflict and of the steps the Paper Australia Pty Ltd propose to take to resolve or otherwise deal with the Conflict;

b) make full disclosure to the Department of Infrastructure and Regional Development of all relevant information relating to the Conflict; and

c) take such steps as the Department of Infrastructure and Regional Development may, if they choose to, reasonably require to resolve or otherwise deal with that Conflict.

I understand that if I fail to notify the Department of any actual, apparent or potential conflicts of interest or am unable or unwilling to resolve or deal with the Conflict as required by the terms noted above, the Department of Infrastructure and Regional Development may seek to terminate any Funding Agreement established in relation to a project which relates to this *Request for Information*.

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Part II - Disclosure of Interests

I disclose the following interests:

I undertake that if at any time I have an actual, apparent or potential conflict of interest, then I will:

a) immediately notify the Department of Infrastructure and Regional Development in writing of that Conflict and of the steps the Paper Australia Pty Ltd propose to take to resolve or otherwise deal with the Conflict;
b) make full disclosure to the Department Infrastructure and Regional Development of all relevant information relating to the Conflict; and
c) take such steps as the Department of Infrastructure and Regional Development may, if they choose to, reasonably require to resolve or otherwise deal with that Conflict.

I understand that if I fail to notify the Department of Infrastructure and Regional Development of any actual, apparent or potential conflicts of interest or am unable or unwilling to resolve or deal with the Conflict as required by the terms noted above, the Department of Infrastructure and Regional Development may seek to terminate any Funding Agreement established in relation to a project which relates to this Request for Information.

\[\text{signature}\]

Peter Williams

\[\text{printed name}\]

13/6/17

\[\text{date}\]

\[\text{signature of witness}\]

David Jeffery

\[\text{printed name of witness}\]

Any information disclosed in this form will only be used by the Australian Government for the purposes of assessing CDG proposals and will be maintained in accordance with the Privacy Act 1988.
Energy from Waste (EfW)
Maryvale Mill, Australian Paper

1. VISION
2. BACKGROUND
3. OBJECTIVE
4. EfW TECHNOLOGY
5. TABLE TOP
6. NEXT STEPS
7. FEASIBILITY

Commercial in Confidence - not to be copied or transmitted without AP approval
Maryvale Background

Maryvale Mill
- 344 Hectares (850 acres), Site+Wetlands.
- 1.8 million tpa of wood, all certified sustainable resource
- 3 pulp mills + state-of-the-art bleaching
- 5 Paper Machines producing 600,000tpa
- Extensive water filtration, recycling & treatment facilities
- DIP Recycling Plant,
- Packaging Recycling Plant
- GWF offsite treatment of liquid trade waste

Maryvale Mill Energy
- 2 Recovery Boilers (~300tph Steam)
- 3 gas fired boilers (~200tph Steam)
- Major Natural Gas user (6.75PJ)
- Produce ~50MWe, Import ~30MWe
- 4 back pressure steam turbine alternators
- >55% Renewable power
- RECs 83,727 in 2016
- Existing boiler feedwater filtration plant

5786 FTE including indirect
Largest Employer in Latrobe Valley
#1 Exporter via Port of Melbourne
Largest office paper recycler in southern hemisphere
Largest industrial user of recycled water from GWF
Largest freight rail user in Gippsland.
Largest base load renewable energy generator in Vic.
Maryvale: A History of Sustainability

- Imported Energy Efficiency
- RECs ~85,000 per year
- Landfill rate falling
- Reduce water usage
AP Vision: 4 Pillars

- Fibre Security
- Mill Stabilisation
- Energy From Waste
- Bio Manufacturing

Current Separation of fibres for paper making lignin for energy

A long term, non-contentious, supply of economic Wood is essential for any of this to happen.

1. Wood Products: Homes, CLT, Furniture ...

Fibre

2. Paper Manufacturing

Lignin

3. Energy

New Waste to Energy Plant

New Bio-manufacturing

High-tech renewable bio products

Landfill Waste
Objective – AP Future Direction

1. Reduce risk of energy market volatility - Energy from Waste
2. Diversify products into growing markets – bio manufacturing

- Generate baseload energy for industrial processes from renewable resource
- Displace the majority of imported natural gas & electricity
- Release Lignin as bio manufacturing feedstock

- Apply waste management hierarchy
- Engage with Waste Management Resource Recovery Groups – Metro & Gippsland

Most Preferable
Avoidance
Reuse
Recycling
Recovery of energy
Treatment
Containment
Disposal

Least Preferable

- Provide sustainable solution to landfill problem
- Net GHG emission reductions \([3], [4], [5], [8]\)
  
  \[\text{Net GHG emissions} = \text{Avoided Landfill emissions} - \text{EfW emissions} + \text{avoided coal emissions}\]
Objective – AP Future Direction

1. Reduce risk of energy market volatility - Energy from Waste
2. Diversify products into growing markets – bio manufacturing

Shaping the future with trees – new generation bio products derived from renewable forest resources:

• Release Lignin as bio manufacturing feedstock
• Develop new products for sustainable and new age manufacturing

APPLICATION SECTORS:

ENERGY
MATERIALS
PACKAGING
BUILDING
ADHESIVES & PAINTS
Energy from Waste (EfW)
Energy from Waste (EfW) is a reality

Ferrybridge UK Commenced in 2016

- 15,260 t of steel
- Up to 850 workers on site
- 140 km power cables
- 100 km control cables
- 7,586 signal
- 19,700 drawings
- 1,450 HAZOP analyses

<table>
<thead>
<tr>
<th>Start-up</th>
<th>2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Investment</td>
<td>£300m</td>
</tr>
<tr>
<td>Jobs</td>
<td>Over 500 Construction, 46 Direct FTE</td>
</tr>
</tbody>
</table>

Maryvale Mill Operations in 2021

- 2021/22 (subject to approval)
- Estimated $600m AUD
- Up to 800 Construction, 46 Direct FTE

<table>
<thead>
<tr>
<th>Start-up</th>
<th>2021/22</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Investment</td>
<td>Estimated $600m AUD</td>
</tr>
<tr>
<td>Jobs</td>
<td>Up to 800 Construction, 46 Direct FTE</td>
</tr>
</tbody>
</table>
EfW Technology Options

Vic EPA EfW Technologies:
- Thermal
  - Combustion (TC)
  - Gasification
  - Pyrolysis
- Biological
  - Anaerobic digestion
  - Fermentation

Most common is thermal combustion. [1]

<table>
<thead>
<tr>
<th>Region</th>
<th>EfW Plants Installed</th>
<th>% Plants with Thermal Combustion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Germany 95% [2]</td>
</tr>
<tr>
<td>USA</td>
<td>86 [2]</td>
<td></td>
</tr>
</tbody>
</table>

SE Asia is seen as an expanding opportunity for EfW with increasing household waste and landfill environmental issues. [7]

EfW Technologies Total Equivalent Costs (US$/MWh) [5]

<table>
<thead>
<tr>
<th>EfW Technology</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfill Gas</td>
<td>Need incremental landfill volumes</td>
</tr>
<tr>
<td></td>
<td>Methane = 25 x equivalent CO₂ tonnes</td>
</tr>
<tr>
<td>MSW Thermal Combustion</td>
<td>Incorporates gate fees &amp; energy</td>
</tr>
<tr>
<td></td>
<td>Mature and Stable</td>
</tr>
<tr>
<td>Biomass Incineration</td>
<td>Only captures energy produced</td>
</tr>
<tr>
<td>Anaerobic Digestion</td>
<td>Australian history shows 5 facilities have closed for viability</td>
</tr>
<tr>
<td>Gasification</td>
<td>Promising</td>
</tr>
<tr>
<td>Pyrolysis</td>
<td>Immature technology</td>
</tr>
</tbody>
</table>
Why waste feedstock?

Waste Problems & Solutions

- Waste Industry Drivers
  - Global policies
  - Reduction of greenhouse gas emissions
  - Circular economy
  - Directives by country
  - Landfill ban, bans on landfill
- Legal
- Resource
  - Shortage of natural resources
  - Recovery of raw materials
  - Global demand for energy
- Waste
  - Lack of landfill capacity
  - Environmental impact
  - Urban hygiene

The EfW Answers

- Embedded in circular economy
- Curbs landfill and GHG emissions
- Fulfills stringent emission regulations
- Energy recovery
- Metal recovery
- Waste is a domestic fuel
- Protects human habitat
- Protects groundwater

Energy from Waste - Sustainable Energy

1t Waste
CHW 18 MWh
= Heat-Power of 240 kg Oil

800 kWh electricity
= average hourly electricity consumption of 1,500 households

- High efficient waste conversion
- Replace fossil fuels in power plants
- EfW curbs greenhouse gas emissions from landfills

Significant landfills in Melbourne (ordered by remaining capacity)

<table>
<thead>
<tr>
<th>Site</th>
<th>Name (Owner/operator)</th>
<th>Annual volume</th>
<th>Expected closure</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Ravenhall landfill (Cleanaway)</td>
<td>1,000kt</td>
<td>&gt;2035</td>
</tr>
<tr>
<td>2</td>
<td>Werribee Landfill (Council)</td>
<td>&gt;500kt</td>
<td>&gt;2035</td>
</tr>
<tr>
<td>3</td>
<td>Wollert Landfill (Hanson)</td>
<td>300kt</td>
<td>&gt;2035</td>
</tr>
<tr>
<td>4</td>
<td>Hampton Park (Suez)</td>
<td>400kt</td>
<td>~2025</td>
</tr>
<tr>
<td>5</td>
<td>Fraser Road (TPi)</td>
<td>300kt</td>
<td>2017</td>
</tr>
<tr>
<td>6</td>
<td>Victory Road (TPi)</td>
<td>350kt</td>
<td>2017*</td>
</tr>
<tr>
<td>7</td>
<td>Carroll Road (TPi)</td>
<td>150kt</td>
<td>2015*</td>
</tr>
<tr>
<td>8</td>
<td>Clayton Regional Landfill (Council)</td>
<td>150kt</td>
<td>2017</td>
</tr>
</tbody>
</table>

Significant landfills in Melbourne (ordered by remaining capacity)

- No capacity left in 5 years
- SE population growth corridor

Years remaining:
- 0-5
- >10

Owner:
- Cleanaway
- SITA
- Boral
- Hanson
- Council / Other

Impending closures
EfW feedstock availability

A real opportunity exists to win the 500ktpa of MSW and C&I waste from SE Melbourne and transport it to Maryvale.

The Vic waste market is ~11m tonnes in total and is growing at approximately 2% per year (~200ktpa); MSW & C&I is the target.

Victorian Waste Market

- **C&D**: 80% (3.2mtpa)  >80%
- **C&I**: 70% (2.9mtpa)  <50%
- **MSW**: 75% (2.2mtpa)  <10%

MSW and C&I are the target waste streams.

Municipal Solid Waste (MSW)
Commercial & Industrial (C&I)
Construction & Demolition (C&D)

EPA Landfill Levy Rates

- SA has set Landfill Levy at $150 in 2019.
- NSW has set Landfill Levy at $135 in 2019.
- VIC has set Landfill Levy at $130 in 2019.

Victorian Landfill Levy rates are significantly less than those in NSW and SA.
# EfW Greenhouse Gas Emissions

<table>
<thead>
<tr>
<th>GHG Emissions (CO$_{2-e}$ tpa)</th>
<th>Best Case</th>
<th>Project</th>
<th>Worst Case</th>
</tr>
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<tbody>
<tr>
<td>Transport Loss</td>
<td>2,916</td>
<td>3,332</td>
<td>3,749</td>
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<tr>
<td>Landfill Methane Fugitive Gain</td>
<td>-345,424</td>
<td>-342,064</td>
<td>-319,687</td>
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<tr>
<td>EfW Loss</td>
<td>224,633</td>
<td>248,144</td>
<td>299,510</td>
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<tr>
<td>Grid Elec Gain</td>
<td>-212,605</td>
<td>-196,200</td>
<td>-178,760</td>
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<tr>
<td>Natural Gas Gain</td>
<td>-215,880</td>
<td>-215,880</td>
<td>-205,600</td>
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<tr>
<td><strong>NET IMPACT (CO$_{2-e}$ tpa)</strong></td>
<td>-546,360</td>
<td><strong>502,667</strong></td>
<td>-400,788</td>
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**BASE PROJECT SCOPE**
- 1 LINE FEEDS STEAM INTO BACK PRESSURE TURBINES ELIMINATING NATURAL GAS
- 1 LINE FEEDS STEAM INTO CONDENSING TURBINE ELIMINATING GRID ELECTRICITY
- LESS ELECTRICITY CONSUMED BY EfW
- FEEDSTOCK 500KTPA FROM SE MELBOURNE, 150KTPA FROM GIPPLSAND
- 300KTA MSW and 350KTA C&I
- LANDFILL FUGITIVE EMISSIONS ONLY
## Energy Balance

<table>
<thead>
<tr>
<th>Maryvale Mill (8000hrs/yr)</th>
<th>Energy (MWHe)</th>
<th>Notes</th>
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<tr>
<td>Purchased Elec Power</td>
<td>30</td>
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<tr>
<td>Purchased Gas for Elec</td>
<td>20</td>
<td>Excludes Kiln Gas</td>
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<tr>
<td>Recovery Elec</td>
<td>30</td>
<td>100% renewable energy (Remains in EfW scenario)</td>
</tr>
<tr>
<td><strong>Total Elec Energy</strong></td>
<td><strong>80</strong></td>
<td></td>
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<tr>
<td>EfW</td>
<td>58</td>
<td>&gt;50% renewable energy (Replaces Purchased)</td>
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* A range of scenarios exist and the Feasibility Study will test the assumptions and evaluate in detail the most sustainable option.
Why Australian Paper?

Community:
- Net GHG Emission reduction
- Contribution to VRET
- Reduce waste sent to landfill
  - Landfill life extensions
  - Landfill management and development cost reduction
- Higher order use of residual waste
- Fossil fuel displacement
- Employment opportunities & skills development
- Alignment with MWRRG Plan
  - Utilisation of waste as a resource
  - Reduce waste sent to landfill (25% in 10 yrs = 300,000 tpa)
  - Planning for population Growth (South East corridor)
  - Avoidance of new SE landfill
  - Avoidance of cross City waste movement
  - Create opportunities for aggregating commercial waste streams
  - Develop WRRG hubs

Maryvale Mill:
- Protect existing jobs (5786)
- Create new jobs and industry for Latrobe Valley
- Integrated with Mill (Combined heat & power) to achieve higher efficiencies than standalone at other locations
- Economically viable and based on proven technology deployed at scale internationally
- Utilisation of suitable land, infrastructure & logistics
Maryvale Site Location Options
**EfW Table Top Assessment**

**FINANCIALS**
- 650,000t MSW & C&I EfW Boiler
- 500kt SE Melb, 150kt Gippsland

**KEY RISKS**
- Construction
- Supply security (>20yr)
- Waste contamination (emissions & residues)
- Residues (~20%) beneficial re-use options
- Competing business models
- Long lead time & innovative technologies
- Community & ENGO acceptance
- Landfill policy
- Elec Grid supply arrangements

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<td>12m</td>
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<td>FEASIBILITY - Stakeholders</td>
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<td>IN PRINCIPLE APPROVAL</td>
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<td>OPTIMISATION</td>
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EfW Financial Overview

s.47G(1), s.47(1)(b)
**Next Steps**

- Stakeholder Briefings – **Obtain Govt in principle support**
- Source Feasibility co-funding ($2.5M, $2.5M, $2.5M)
- Finalise milestones
- Establish oversight progress meetings
- Allocate internal resources
- Engage external resources
- Wider Stakeholder communications
Feasibility Study Structure

AP EXECUTIVE

Project Lead Team (AP & Senior Consultant)

- Project Lead: DJ

Technical
- AP
  - Engineering Consultation
  - Feedstock Consultation
  - Emissions Consultation
  - Supply Chain Consultation

Commercial
- AP
  - Capital Funding Consultation
  - Financial Modelling

Social
- AP
  - Community Consultative Committee
  - Stakeholder Consultation

Government & Agencies
- Dept Enviro & Energy
- Dept Infrastructure & Regional Development
- Dept Industry Innovation & Science
- Clean Energy Regulator
- Sustainancy Vic
- LCC
- RDV
- Transport
- LVA
- WRGG
- DELWP
- Vic EPA
EfW Feasibility Cost Estimate

- Business Case recommendations
- Governance, quality & timing
- Govt & Key Stakeholder engagement
- Residue re-use/disposal
- Energy Network Integration
- Logistics Study
- Risk assessment &
- Management plan

MANAGE
s.47G(1), s.47(1)(b)

SOCIAL
s.47G(1), s.47(1)(b)

COMMERCIAL
s.47G(1), s.47(1)(b)

TECHNICAL
s.47G(1), s.47(1)(b)

- Community Engagement
- Employment Impacts
- Environmental Impacts
- Economic Impacts
- Circular Economic Assessment

- Research analysis
- Waste & residues
- Technology Options
- Optimal Mill Integration
- Preliminary Design
- Project Cost Estimate

TOTAL
s.47G(1), s.47(1)(b)
Additional Information in relation to questions
EfW Financial Overview

s.47G(1), s.47(1)(b)
EfW Pollution Control

- Temperature of Boiler 850C-950C
- De-novo dioxin synthesis at 350C - 400C removed via the APC
- Best Available Technology is defined by European IED (DIRECTIVE 2010/75/EU) and requires minimum 2s residence over 850C at all times measured after the last injection of combustion air.

Bottom ash recycled to road base or sintered products (tiles, pavers, blocks). APC residues to prescribed waste landfill due to heavy metals.

Temperatures and Controls ensure Modern EfW plant are a net dioxin sink.
Thermal Combustion

<table>
<thead>
<tr>
<th>EFW Technology</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Landfill Gas</td>
<td>Need incremental landfill volumes</td>
</tr>
<tr>
<td></td>
<td>Methane = 25 x equivalent CO₂ tonnes</td>
</tr>
<tr>
<td>MSW Thermal Combustion</td>
<td>Incorporates gate fees &amp; energy</td>
</tr>
<tr>
<td></td>
<td>Mature and Stable</td>
</tr>
<tr>
<td></td>
<td>Heterogeneous feed</td>
</tr>
<tr>
<td>Biomass Incineration</td>
<td>Insufficient on-site material</td>
</tr>
<tr>
<td></td>
<td>No gate fee</td>
</tr>
<tr>
<td>Anaerobic Digestion</td>
<td>Insufficient on-site material</td>
</tr>
<tr>
<td></td>
<td>Not suitable for MSW</td>
</tr>
<tr>
<td>Gasification</td>
<td>Promising, increased complexity</td>
</tr>
<tr>
<td></td>
<td>High cost, homogeneous feed</td>
</tr>
<tr>
<td>Pyrolysis</td>
<td>Small Scale</td>
</tr>
</tbody>
</table>

Two clear options for Thermal Combustion:
1. Moving Grate (MG)
2. Circulating Fluidised Bed (CFB)

<table>
<thead>
<tr>
<th>Technology Supplier</th>
<th>Grate Combustion System for MSW?</th>
<th>Fluidised Bed Combustion System for MSW?</th>
<th>Largest Process Line (Tonnes per day)</th>
<th>Number of Reference Plants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Martin</td>
<td>Reverse reciprocating grate</td>
<td>No</td>
<td>1200</td>
<td>389</td>
</tr>
<tr>
<td>Keppel Segers</td>
<td>Multi-acting reciprocating grate (Dynagrate) and forward acting grate (Volund)</td>
<td>No</td>
<td>800</td>
<td>circa 35</td>
</tr>
<tr>
<td>Fisia Babcock</td>
<td>Forward acting reciprocating (Steinmuller) and roller</td>
<td>No</td>
<td>960</td>
<td>59</td>
</tr>
<tr>
<td>Babcock &amp; Wilcox</td>
<td>DynaGrate, Velund grate</td>
<td>No</td>
<td>840</td>
<td>50</td>
</tr>
<tr>
<td>Valund</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hitachi Zosen</td>
<td>Forward acting reciprocating (formerly Von Roll Inova, HZ was Japanese licensee)</td>
<td>No</td>
<td>920</td>
<td>Approx. 480</td>
</tr>
<tr>
<td>Inova</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kawasaki Heavy</td>
<td>Horizontal water cooled grate (advanced stoker system')</td>
<td>No</td>
<td>450</td>
<td>200 – 300 small plants in Japan</td>
</tr>
<tr>
<td>Industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mitsubishi Heavy</td>
<td>Reverse acting reciprocating (Martin grate license)</td>
<td>No</td>
<td>?</td>
<td>circa 250</td>
</tr>
<tr>
<td>Industries</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>JFE</td>
<td>Horizontal stoker grate (Hyper Grate Stoker)</td>
<td>No</td>
<td>450</td>
<td>120</td>
</tr>
<tr>
<td>Fluidised Bed</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>combustion systems</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ebara</td>
<td>°TIP FB incineration system</td>
<td>No</td>
<td>500</td>
<td>90</td>
</tr>
<tr>
<td>EPI Outotec</td>
<td>No</td>
<td>BFB</td>
<td>250</td>
<td>3</td>
</tr>
<tr>
<td>Metso Power</td>
<td>No</td>
<td>BFB</td>
<td>Relatively small</td>
<td>10</td>
</tr>
<tr>
<td>Metso Power</td>
<td>No</td>
<td>CFB</td>
<td>Relatively small and process other fuels with RDF</td>
<td>4</td>
</tr>
</tbody>
</table>

Source: WSP analysis of various data sources
Moving Grate and Circulating Fluidised Bed

The moving grate mechanism (normally inclined although horizontal grate designs are operating) moves the burning solid waste from the inlet to the outlet. Primary combustion air passes from below the grate underneath the burning solids and flows through the waste bed into the freeboard zone above the bed. Secondary and tertiary air injection ports are used to ensure complete combustion of the gas phase components volatilised from the solid waste. Typical regulations require the flue gas to be held at a minimum temperature of 860°C for two seconds after the last injection of combustion air.

The hot flue gas then passes into the water tube waste heat recovery boiler.

As the fluidising velocity to a bubbling fluidised bed is slowly increased the bubble phase will disappear leading to a condition of uniformity, referred to as the turbulent state. If the gas velocity exceeds the transport velocity of the particles then, in the absence of solids recycle, the column containing the particles, would empty rapidly. However, if the solids ejected from the bed are captured in a cyclone and returned via a standpipe to the bottom of the bed then it is possible to maintain a relatively large solids concentration in the column. CFB combustors utilise smaller particles (approx. 250 µm) and higher gas velocities (6 - 6 m/s) than a corresponding BFB.
## MG Versus CFB

<table>
<thead>
<tr>
<th>Strengths</th>
<th>Moving Grate</th>
<th>Circulating Fluidised Bed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Higher Waste volume capacity</td>
<td></td>
<td>Generally lower NOx [1], [4]</td>
</tr>
<tr>
<td>Heterogeneous fuel (no pre-treat)</td>
<td></td>
<td>Higher electrical efficiency</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher energy produced per tonne. [2]</td>
</tr>
<tr>
<td>Proven stable bankable (over 90% of facilities worldwide are Moving Grate)</td>
<td></td>
<td>Wider feedstock moisture [3]</td>
</tr>
<tr>
<td>Higher availability</td>
<td></td>
<td>Less moving parts in combustion system</td>
</tr>
<tr>
<td>Weakness</td>
<td>Higher CO2</td>
<td>Requires homogenous fuel (full pre-treatment required)</td>
</tr>
<tr>
<td>Investment Costs</td>
<td>Higher for Grate/Boiler</td>
<td>Poor pre-treatment has risks of “glass” formation in combustion zone.</td>
</tr>
<tr>
<td>Costs Overall Similar [1]</td>
<td></td>
<td>Lower for Grate Boiler</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Higher for Pre-treatment</td>
</tr>
<tr>
<td>O&amp;M costs</td>
<td>Lower [1]</td>
<td>Higher when pre-treat included [1]</td>
</tr>
</tbody>
</table>

AP’s preferred technology is Moving Grate due to higher reliability and bankability. The Feasibility Study will further assess these two most suitable technologies to finalise the Business Case.