

Landfill Gas and Power's International Experiences
Presentation by Graeme Alford, CEO, LGP
Austrade Presentation, 26 May 2009.

Slide 1: Landfill Gas and Power or LGP as we call it operates four landfill gas power stations in the Perth metro area.

As the landfill gas electricity generation industry has gone from innovation to maturity in under 20 years, we have been looking at the options to expand our business operations internationally.

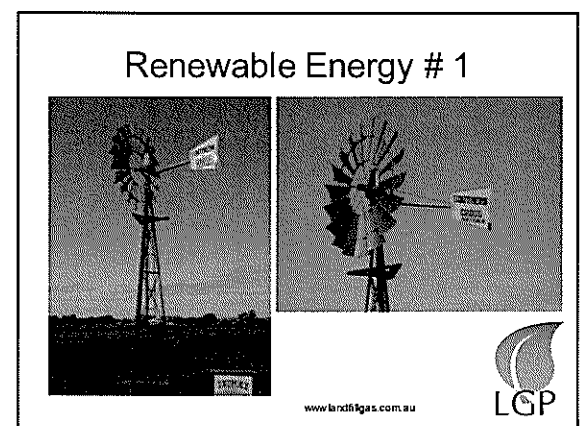
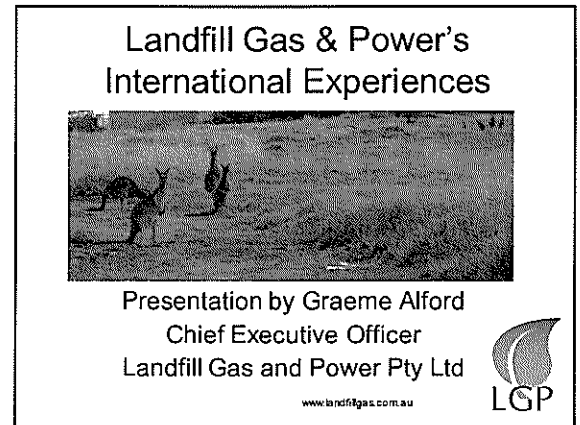
Today, I will describe

- what we do;
- our strategy for expanding internationally; and
- some of our experiences thus far.

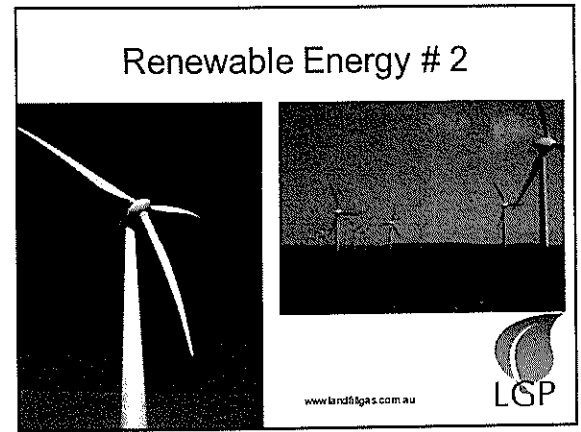
This will be presented as a number of Key Points.

Slide 2: Renewable Energy has been around for a long time. It is now able to offer a large part of the solution to climate change.

Windmills have been used and still are being used in rural parts of Australia to supply drinking water to humans and livestock.

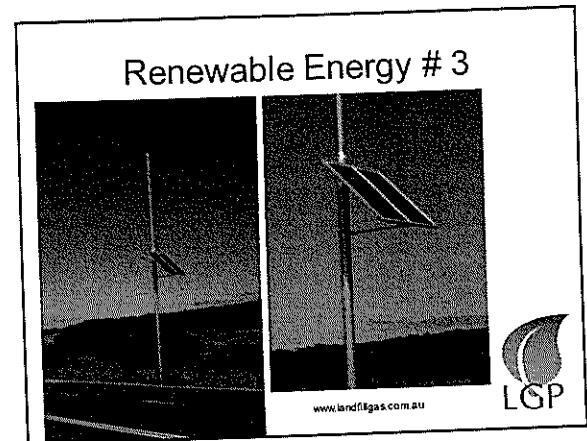


Slide 3: Modern wind farms are now providing some of our electricity needs.



Slide 4: Another renewable application is solar. In Australia to date this has tended to be limited to off grid and isolated locations, such as street lighting at rural intersections.

Landfill methane gas can also be used as a renewable energy source and thus provide part of the solution to global warming and resultant climate change.

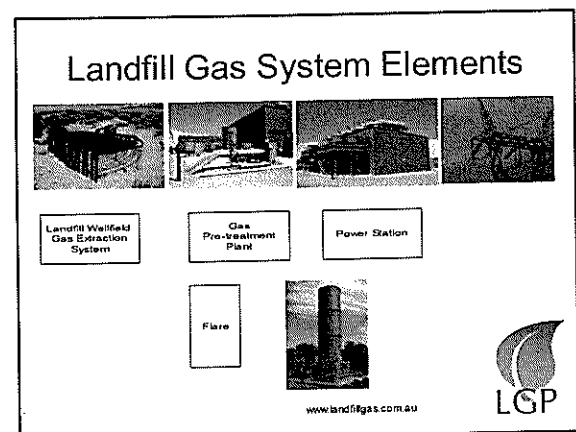


We are a green company and that gives us appeal in developing countries.

First Key Point: What is your point of difference from the field?


Slide 5: There are several key elements to a gas recovery and utilisation system:

- The wellfield to collect the gas from the landfill;
- Gas pre-treatment plant to clean the gas for combustion;
- The power station to generate the electricity;
- Connection to the grid; and
- Flare to destroy any gas not combusted in the engines.




Slide 6: With the larger landfills, this process will result in the generation of green electricity and income from the sale of this electricity.

Larger Landfills



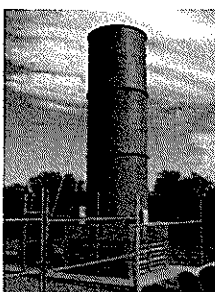
- Generation of green electricity
- Income from sales to the electricity grid or customers

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Slide 7: For smaller sites, it may be possible to generate some electricity for internal use only or to flare the gas, thereby reducing its environmental effect.

Smaller Landfills

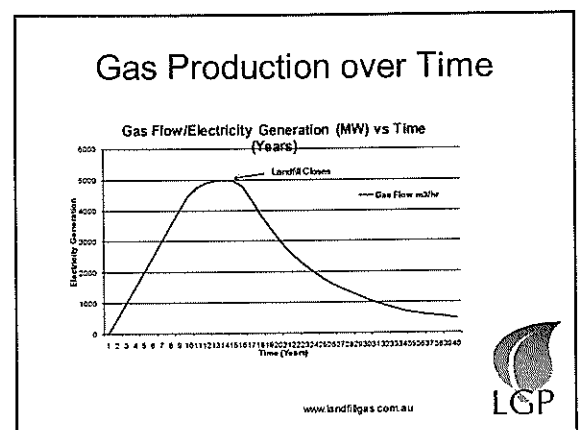


- Flare gas OR
- Generate electricity for internal use

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Slide 8: This graph shows the landfill gas production over the life cycle of the landfill. Once the landfilling operations commence, gas will be generated and this will build until a peak level is obtained, which will be maintained until the closure of the landfill. Thereafter, gas production will steadily decline with the rate of the decline depending on the composition of the waste and may take up to 20 years post closure for this to significantly reduce.



Slide 9: The graph has been overlaid with the engine modules, which are progressively added as the landfill gas production increases. Likewise, post closure, the engines are removed as the gas supply declines.

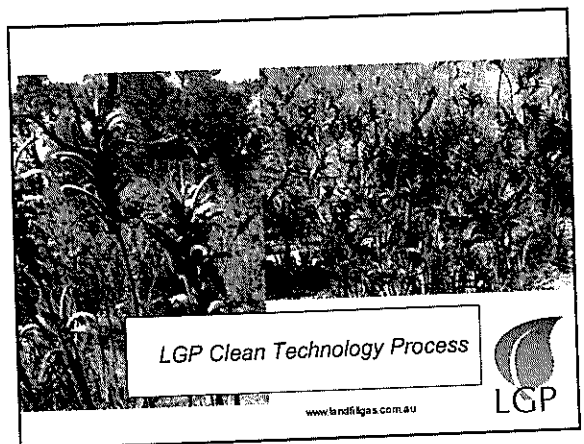
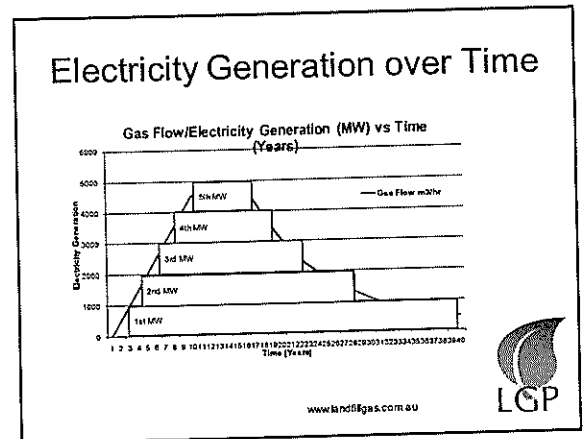
There are many potential landfill sites for this technology in the developing countries of Asia.

Second Key Point: Is there a demand for your product or service?

Slide 10: From its 16 years experience in the waste to energy industry, LGP has developed its **LGP Clean Technology Process**. In expanding our operations internationally, we had to develop a strategy. We decided to offer services in two areas, being works and consultancy.

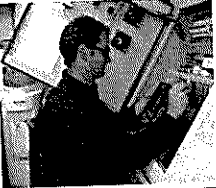
Slide 11: In the works area, LGP offers the following services utilising its **LGP Clean Technology Process**:

- **BOOT.** This involves the design, construction and operation of the power station with possible future handover to the landfill operator. At this stage of our development and with the GFC, this option is only available within Australia.



LGP Services Part 1: - Works
LGP Clean Technology Process

- Build, Own, Operate and Transfer (BOOT) (within Australia only)
- Supply of Components, e.g. flares, pre-treatment plants, engine gensets
- Construction of Wellfields and/or flares



The LGP logo and website address "www.landfillgas.com.au" are located at the bottom right of the slide.

- We can supply the components for the power station when the operator wants to retain ownership. We design, manufacture and commission. This can be a flare, pre-treatment plants or engine/gensets modules.
- Undertake construction. We will build the wellfield, again utilising **LGP Clean Technology Process** and LGP's specialised drilling equipment and provide a flare.


Slide 12: The other area we are able to utilise the **LGP Clean Technology Process** is with our consultancy services:

- Design and Project Management services. We will complete the works to commissioning and train the personnel of the operator before handing over.
- Trouble shooting where an existing power station is not operating to expectations.
- Landfill gas capability assessment service. We are able to tell you whether there will be sufficient gas to operate a commercial landfill gas power station


Third Key Point: Know what you are offering to the client.

**LGP Services Part 2: – Consulting
LGP Clean Technology Process**

- Design and Project Management Services
- Trouble shooting of existing poorly performing waste to energy facilities
- Landfill gas capability assessment service



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Slide 13: Initially we targeted two Asian countries and set off to sell our widgets to companies we knew would benefit from our knowledge and experience.

Being a green Australian company, we thought this would succeed. It did not.

We changed strategy to opportunity based as the clients started to come to us from our web page, speaking and exhibiting at conferences and from the various State and Federal government departments.

We now had interested parties in what we offered rather than convincing parties that we were the answer to their problems.

Fourth Key Point: Know your market.

Slide 14: Be prepared with suitable marketing materials that are modern and appearing. People don't want to see you fumble through out of date materials or use 20th century technology.

This is one area where you need to spend the dollars. Have the materials professionally prepared and edited.

Distribute freely to all parties you meet.

Of these, the Capability Statement is the most important document left behind. It will contain all of the matters I have discussed here today.


Fifth Key Point: Use modern up to date marketing materials




Marketing Materials

- DVD
- Capability Statement
- A4 colour Leaflet
- Power point presentation (meetings and conferences)
- Others (caps, pens, pads)
- Business cards

Use dual language if applicable



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Slide 15: What have been the lessons LGP has learnt from just over two years looking at expanding our business operations internationally?

1. Most significant is establishing a local presence. This ought to be a person, who lives in the country, contracted part time or a full time employee depending on the work requirements. You need someone local to look after your interests. Alternately, station one of your existing people there, although the former is the better option.

2. In our case, because we deal with very large specialised projects that have a gestation period of several years, it is important to partner with a local company. They will get you through doors quicker than the man with the brief case from overseas.


3. Our marketplace is Asia. Therefore, we endeavour to use local goods and services wherever possible. Apart from our specialised supervisory and technical people, we will use local labour.

4. Remember local conditions can be different. In Perth, 500mm of rainfall against 5 metres in some tropical countries or ground freezing during winter in others. Will your operations function under these conditions? Know the local conditions. They are different.


Sixth Key Point: Establish an early local presence

Lessons Learnt

- Establish an early local presence
- Partner with a local company
- Use local labour, materials and equipment
- Allow for local conditions e.g. weather



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Slide 16: Here is a summary of the key points of LGP's experiences thus far.

Each is critical to your success.

However, you will do a lot of wheel spinning unless you establish a local presence and/or partner early. They will get you before important decision makers much quicker.

Slide 17: This concludes my presentation on expanding LGP's business internationally.

I trust that you will be able to use our experiences to speed up your entry into your new markets.

Thank you for your attention.

Any questions?

Key Points of LGP's Strategy

- What is your point of differentiation?
- Is there a demand for your product/service?
- Know what you are offering
- Know your market
- Use modern up to date marketing materials
- Create an early local presence

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Thank You. Any Questions?



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