

Renergi Pty Ltd: Energy from Waste through Pyrolysis Project Lessons Learnt Report #1

COVER PAGE

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Reporting Period	March 2020 - May 2021

This Project received funding from the Australian Renewable Energy Agency (ARENA) as part of ARENA's Advancing Renewables Program. This Project also received funding from the WA state government via its Collie Futures Industry Development Fund.

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EXECUTIVE SUMMARY

Renergi Pty Ltd has developed a patented, award-winning pyrolysis technology, which is termed as "grinding pyrolysis" technology. The technical feasibility of this patented technology has been demonstrated with a 100 kg/hr demonstration plant funded by the ARENA and the WA state government.

The ultimate aim of this project is to design, build, commission and operate a pre-commercial demonstration plant in Collie, WA, to convert municipal solid wastes and forestry residue into two commercial products – bio-oil and biochar.

Community consultation is a vitally important aspect of this project especially because this project will interact with the general public by processing the municipal solid wastes generated by the residents in the Shire of Collie. Herein we report our lessons learnt so far that COVID-19 lockdowns could cause delays in carrying out the Public Forum, which can result in delay in the project.

KEY LEARNINGS

Lesson learnt No. 1: Delay due to the COVID-19 lockdown

Category: Social

Objective: During this project, in partnership with the Shire of Collie, WA, Renergi will design, build, commission and operate a pre-commercial demonstration pyrolysis plant in Collie. The success of this project will contribute to the transition of Collie from a coal-reliant economy to a renewable-reliant economy by developing a negative-emission bio-based circular economy.

Renergi's pyrolysis plant will have two types of feedstocks: municipal solid wastes and forestry wastes. Renergi's plant will provide a sustainable waste management solution for the Shire of Collie whereby its municipal solid wastes will be processed into biochar and bio-oil for sale as commercial products. Renergi's plant will also convert forestry wastes into biochar and bio-oil. Renergi's technology can potentially be replicated in many regional areas in Australia and other parts of the world to divert the wastes from landfills while avoiding a large amount of emissions.

Obviously, community consultation is vitally important for Renergi's project to obtain its social licence to build and operate.

Detail: While Renergi had carried out extensive consultation with a wide range of stakeholders prior to the start of this project, a Public Forum with the general public in the Collie region has been considered as a vital step in progressing the project. In particular, any possible concerns from the general public must be considered and resolved where possible when the plant is designed by Renergi.

A Public Forum was planned to take place in Collie in mid February. However, the WA state government announced a COVID-19 lockdown for the Perth metropolitan area (where Renergi is based) and the Peel and South West regions (in which Collie is located) from Sunday 31 January 2021 to Friday 5 February 2021. This was followed by a restriction transition period up to 14 February 2021 for the Perth and Peel regions.

As a result, the Public Forum had to be delayed and re-scheduled, which has caused delay to the project.

The Public Forum has now fortunately been held. While the Public Forum was held in the evening of 22 April 2021, the WA state government announced on 23 April 2021 that the Perth and Peel regions would enter a 3-day COVID-19 lockdown from 12.01am Saturday 24 April 2021. The Public Forum could have been delayed again had we planned the Forum to be held 1 or 2 days later.

Implications for future projects: Fortunately, no significant concerns were raised during the Public Forum. Renergi did not need to make significant changes to its plant design. Nevertheless, the lessons learnt would include:

- The notice period we give for a public forum in the COVID-19 era should be shorter than what we would otherwise give in normal non-COVID times. While the best intention is to give the public enough notice to encourage attendance, the sudden nature of any possible COVID-19 lockdowns means that shortening the notice period would greatly increase the chance of holding a public event as soon as possible.
- The negative impact of a shortened notice period could be alleviated by providing additional means of engaging with the public after the official forum. One possible means to compensate for the shortened notice period would be to hold additional on-line session(s) for the public who could not attend the Public Forum.