

CEA's proposed plan for plant outlined

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Innovative technology to dry the Latrobe Valley's very wet brown coal is at the heart of a new carbon products venture that promises investment and jobs for the region.

The project by Coal Energy Australia aims to build a new plant on the site of the old Morwell power station and briquette factory.

It will not go ahead if the old power station cannot be not demolished following last week's Heritage Council decision.

The company's general manager projects Roland Davies gave a briefing on the project at the Brown Coal Innovation Australia seminar at Federation University earlier this month.

The plan is to rejuvenate the existing plant and equipment at the briquette factory, including the re-establishment of drying and briquetting operations.

The existing plant would be integrated with new pyrolysis technology.

Pyrolysis is a thermochemical process used to remove moisture from brown coal.

"Pyrolysis is a sustainable option for Latrobe Valley brown coal. CEA has been developing the coal pyrolysis project since 2012," Mr Davies said.

"This technology will produce a range of valuable carbon products to meet existing and projected domestic and international market needs."

These products include briquettes, low volatile char and activated carbon.

Briquettes are used in industrial boilers, char feedstock, power station auxiliary fuel and domestic fuel while low volatile char's uses include ferro alloys, silicon, magnesium and barbecue fuel feedstock.

"Char has numerous markets - not a full ship's worth of products, more containers, but it will pay a good price," Mr Davies said.

"The holy grail is to get 'activated carbon', an exciting market. It's growing about 16 per cent annually - it's a target market - and Victorian brown coal is suitable."

The applications of activated carbon, also known as activated charcoal, range from pollution control, water treatment, gold processing, mercury removal, pharmaceuticals, and food and medicine.

It is used to remove chemicals, toxins and gases.

For example, due to its added benefits, activated charcoal has replaced charcoal in water purification systems and fish tank filtering systems.

It also can be used to help treat drug overdoses or poisonings. Activated carbon works by absorbing the drug or toxin, helping to rid the body of the unwanted substance.

Mr Davies said long-term sustainability was a strategic imperative for the site, including a market for process by-products, the integration of renewables, and development of emission reduction technologies.

"Interesting products include low-cost hydrogen from Victorian brown coal," he said.

Key aspects of the project included:

Its carbon emissions are within the limits of the Victorian government's brown coal plan.

Hundreds of millions of dollars will be invested over the life of the project.

Up to 80 jobs will be initially created, with a substantial number of indirect jobs, from construction to maintenance, going to local companies.

The Latrobe Valley has abundant coal resources (33 billion tonnes) to underpin coal-based projects for decades.

The economic value - "potential value add" - from these resources is more than \$300 billion (\$3 trillion).

A key component of the project is the establishment of the CEA Cleantech Science and Innovation Hub at the site where technologies can be researched and demonstrated.

"At the tech hub, we will work with other local research centres," Mr Davies said.

Mr Davies said it was taking a long time for Victoria to get up major projects in brown coal other than power.

There was an opportunity to combine some interests, such as Kawasaki's hydrogen venture.

"This process demonstrates the innovative approach to take from the academic to commercial world. This is a hard road," he said.

"We [are] open for business in terms of innovative uses of coal and emissions reduction. Our managing director has a close relationship with Chinese entities."

Mr Davies said CEA had used Hazelwood coal but there was a range of coals in the Latrobe Valley that have advantages and disadvantages.

"Loy Yang and Yallourn W are suitable for certain products," he said.

Source: <http://www.latrobevalleyexpress.com.au/story/5236704/ceas-proposed-plan-for-plant-outlined/>



Morwell Power Station and Briquette Factories. file photograph