

MEDIA RELEASE December 8, 2010

## Carbonscape Cracks One-Step Production of Activated Carbon From Waste

### **World-first green technology has vast market potential**

BLENHEIM, NEW ZEALAND: New Zealand charcoal technology company Carbonscape™ has become the first in the world to pioneer a new green technology - a one-step process to cheaply produce highly porous charcoal.

Known as Activated Carbon (often described as AC), this form of charcoal has a huge surface area, typically measuring more than 500 square metres per gram.

This large surface area gives AC a diverse range of uses, including cleaning contaminated soil and water, and capturing significant amounts of carbon dioxide emissions from power stations.

Throughout the world AC is used in such diverse industries as metallurgy, chemistry, agriculture, timber processing, gold extraction, nuclear energy, pharmaceuticals, petrochemicals, medicine and food processing.

Traditionally, the method of production involves many stages of processing and uses relatively exotic materials to open up the tiny pores between carbon atoms. Using its patented continuous-flow microwave technology, Carbonscape™ has produced high-grade and highly-valuable AC in a single processing step using waste pine sawdust.

The company has now begun batch scale production at its South Island, New Zealand pilot site this month. Independent testing shows Carbonscape can produce surface areas of 800 square metres per gram from pine sawdust.

“We’re incredibly excited by this development,” says Carbonscape™ director and CEO Tim Langley, “We have replaced a slow and complex process using exotic materials with a fast, single process using pine sawdust and created a 60% improvement in quality. We have applied for patents. The potential world market for this technology is vast. Each year demand is rising by about 5%. It’s a whole new world.”

A benefit of Carbonscape’s solution is it can use wood and other waste that would otherwise be expensive to dispose of.

“Something that was a massive waste product can become a very valuable resource,” says Tim Langley.

Activated Carbon also has the potential to massively reduce the emissions from large, single sources of carbon dioxide, such as power stations. These sources currently produce some 60% of all carbon dioxide, providing the greatest near-term potential for reducing greenhouse gas emissions. Activated Carbon may help in the fight against climate change. By placing AC in flue gases, it can absorb carbon dioxide before it is released into the atmosphere.

"The is just the start", explains Carbonscape™ director and University Professor Chris Turney, "We're now exploring the potential of other waste types for producing Activated Carbon to identify whether they are best for absorbing carbon dioxide or for other applications. It's an incredibly exciting time."

"By combining waste wood streams and the dial-up capability of Carbonscape's microwave technology, it is possible to generate different quantities of high-value charcoal, oil and gas byproducts", comments Carbonscape™ director Nick Gerritsen, "This gives us remarkable flexibility, allowing us to optimise product generation."

In 2008, Carbonscape received the Judge's Top Choice in the Financial Times (UK) Climate Change Challenge.  
[www.carbonscape.com](http://www.carbonscape.com)

---

Carbonscape is seeking new investment capital

Helping the air breathe a little easier  
HOMEABOUTOUR PEOPLEFAQSNEWSCARBON STORIESINVESTMENT & CONTACT DETAILS

#### Investment & Contact Details

Carbonscape is seeking new investment capital. If you are interested in investing please contact either Director Nick Gerritsen (email or mob +64 274 88 98 36) or Director Tim Langley (email or mob +64 21 2755589) to ascertain whether your investment complies with New Zealand law. Alternatively, Carbonscape forms part of a portfolio of New Zealand companies held by NZ Capital Strategies.

General Enquiries  
Address  
Carbonscape Ltd  
P.O. Box 55  
Blenheim  
New Zealand  
Phone  
+64 3 579-2273

Fax  
+64 3 579-2273

Email

[info@carbonscape.co.nz](mailto:info@carbonscape.co.nz)