

Malcolm Turnbull Backing Biochar

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Malcolm Turnbull has released the opposition's <u>response</u> (dubbed the "Green Carbon Initiative") to the Labor government's <u>proposed ETS</u> (Emissions Trading Scheme), with the plan promising extra spending on alternative energy sources, more money for "clean coal" (cough), tax breaks for green buildings and retrofitting existing building to make them more energy efficient, mass forestry plantings and, most interestingly, research into storing carbon in soil via <u>biochar</u> (also known as terra preta).

The measures include creation of the Green Carbon Initiative to offset greenhouse gases by capturing carbon and storing it in the soil by using improved farming practices. He will argue that large quantities of soil carbon are lost to the atmosphere because of conventional cropping methods that leave soil exposed for long periods,



and that the opportunities for carbon abatement through changes in agricultural practices are gigantic.

The Opposition Leader also wants to fast-track the development of "biochar" technology, under which green farm waste is heated in the absence of oxygen in a process called pyrolysis. It turns half of the material into bio-fuels that can be used to generate clean electricity, and the remainder into charcoal called biochar. "Biochar is then returned to the soil, which dramatically increases agricultural productivity," he will say. "We will invest in our own land and at the same time offer the world an example of how real, practical action can be taken in the battle against global warming in the here and now. ...

Mr Turnbull also proposes mass tree-planting to absorb emissions.

The move could upset the Nationals, who last year split with the Liberals in the Senate to oppose the creation of tax breaks for investment in forestry carbon sinks, arguing forests would consume prime agricultural land. But Mr Turnbull will assert that planting trees can assist agricultural production.

"Every wind break, tree lot or hedge planted by farmers to protect pastures, crops and livestock is both sequestering CO₂ and increasing agricultural production - as (wife) Lucy and I know very well from our experience over 26 years of farming in the Hunter "Carbon capture and storage is a vital technology for our nation," the speech says. "I commit that a coalition government will ensure that at least two industrial-scale CCS power stations projects will be built. We will ensure the financial support is there to make this happen.

"It will be a key objective of the Coalition government that I lead that Australia successfully deploys industrial-scale demonstration projects in solar energy, in geothermal energy and harnessing the energy of the ocean through tidal and wave power."

Turnbull toured Newcastle biochar company <u>Crucible Carbon</u>'s facility before making the announcement. The announcement didn't get met with much enthusiasm from the <u>Cattlemen's association</u> or from coalition partners in the <u>National party</u>, while the government is calling the technology "<u>unproven</u>", which seems ridiculous given the \$500 million they are spending on clean coal research (though to be fair, so is a <u>CSIRO researcher</u>).

THE enormous potential of biochar to capture and store carbon is being overlooked by the Federal Government, Opposition Leader Malcolm Turnbull says. Mr Turnbull yesterday toured Crucible Carbon, which is developing technology for the mass production of biochar, at Newcastle in NSW.

Biochar, a charcoal produced from biomass, has the potential to provide long-term carbon storage in soil with the offset of improving soil quality and increasing agricultural productivity.

Mr Turnbull said biochar had the potential to absorb up to 100 million tonnes of CO2 each year, close to 20 per cent of Australia's emissions. "Globally, this could be the single biggest opportunity, new opportunity, for biosequestration of CO2 after forestry, and of course, organic soil carbon," he told reporters.

"We have an enormous opportunity here in Australia to absorb millions of tonnes of carbon dioxide from the atmosphere, store it safely as carbon, and put it back into the soil and increase the productivity and the health of our own landscape. "A win-win. A win for jobs, a win for the environment, a win for agriculture." ...

He said the Crucible Carbon technology had been estimated to be able to capture and store carbon for \$20 a tonne or less, but companies which wanted to use biochar to offset emissions would not get a credit for it under the Rudd government's emissions trading scheme.

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