

VN Carbon Capture (Coal) Ltd

A CO₂ Reduction Technology



'The UK faces capacity crunch as coal-fired power plants close'

theguardian

'Coal's final chapter is not yet written'

Britain has just closed three giant coal power plants and the remaining fleet is under a sentence of death. But, as Emily Gosden reports, there is major uncertainty over the manner of its execution.

The Telegraph

Ed Davey, the Energy Secretary, claimed last week that his reforms "will ensure we can keep the lights on, bills down and the air clean". His department boasted that the Draft Energy Bill will "provide a regulatory backstop to prevent construction of new coal plants which emit more than 450g/kWh".

FACT:

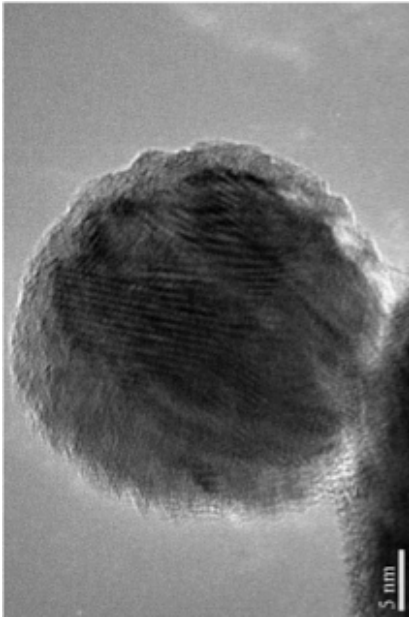
The Conservative proposal sets an emissions performance standard for power stations of 450kg of CO₂ per megawatt hour (MWh) of power. Existing coal-fired power stations emit around 850kg of CO₂/MWh. As such even the most advanced coal stations such as Kingsnorth would fall foul of the emissions standard, as it would emit about 700kg/MWh once built. There are currently eight proposals for new coal-fired power stations in the UK today."

VN-Carbon Capture (Coal) Ltd (VN-CC(C)) proposes to raise £5,150,000 in three rounds of funding to further develop Nickel Nano Particle (NiNP) technology and incorporate it into CO₂ filtration devices. Monetisation of this development will be achieved via licencing agreements with power station manufacturers and operators alike. The manufacturers and operators are under significant financial pressure by way of fines to reduce CO₂ emissions following the decision of governments around the world to set allowed pollution levels in this sector. Failure for the manufacturers to meet the already "legislated and 'policed' emission" targets with their new equipment would result at best in loss of market share, or worse, no physical sales of equipment at all. For the existing operators the choice is even simpler; reduce and clean up, or shut the station down, because after fines it will simply not be commercially viable to operate.

Laboratory Proven
Technology

Proven Market
Opportunity Driven by
Legislation

Service Contract Revenue
Model



HRTEM images of a Ni Nanoparticle

Edward Davey



Letter to the Independent on Sunday Re the Emissions Performance Standard.

In setting a limit on the amount of CO₂ a plant can emit, the Emissions Performance Standard (EPS) is an important backstop designed to prevent new unabated coal-fired power stations being built ("A black Wednesday for the environment?", 18 March). But it is not designed to prevent new gas-fired power stations. One in five of our ageing power stations is due to close in the next decade and it is impossible to build enough low-carbon capacity in that time...

What is the opportunity & why does it exist?

- ✚ Global CO₂ reduction driven by Legislation and heavy fines are forcing non-compliant power generation plants to close
- ✚ Renewable, Nuclear or New Gas Fired power stations cannot be brought online quickly enough to avoid 'Brown-outs' in UK & Europe
- ✚ Coal is the most abundant naturally occurring fossil-fuel remaining on the planet
- ✚ Coal emits vast quantities of CO₂ when burnt, although other toxic emissions are largely filtered-out by technology. Therefore removal of CO₂ is the solution

What is the technology and how proven is it?

- ✚ Nickel Nanoparticle Absorption Process
- ✚ Tested in laboratory conditions at Newcastle University and proven to remove 100% of pure CO₂ via a Water Screening Process
- ✚ Development process required to:
 - Prove durability & efficiency of NiNPs in a burnt coal produced CO₂ waste stream
 - Design recovery and reuse process for NiNPs
 - Calculate metrics for all stages of the process.

How will it make money and when?

- ✚ Sell the service to power generators on 10-year minimum contracts using a 'share of savings' payment basis
- ✚ Licence technology to new-build manufacturers & maintainers of existing plant
- ✚ Resale of Calcium Carbonate by-product
- ✚ 3-5 years in development before revenues
- ✚ 3-5 years in revenue before potential investor exit

For further information on the VN Carbon Capture (Coal) Ltd opportunity or any other VN-Capital Partners sponsored project please contact us on: 0207 993 5307 or email to SEIS@vn-cp.co.uk