

# VN Carbon Capture (Gas) Ltd

## NiNP CO<sub>2</sub> Absorption Technology



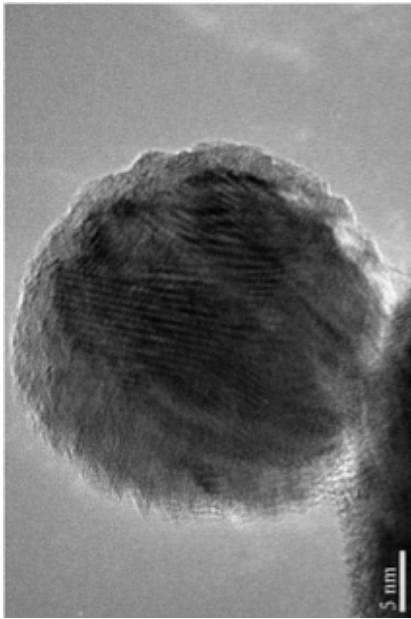
VN-Carbon Capture (Gas) Ltd (VN-CC(G)) proposes to raise £5,150,000 in three rounds of funding to further develop Nickel Nano Particle (NiNP) technology and incorporate it into CO<sub>2</sub> filtration devices.

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 CO<sub>2</sub> 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 '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

Service Contract  
Revenue Model



HRTEM images of a Ni Nanoparticle

## What is the opportunity & why does it exist?

- ✚ Global CO<sub>2</sub> reduction driven by Legislation and heavy fines
- ✚ Co-firing Generators using either a mix of industrial gasses or natural gas forced to close down because of they cannot meet the emission requirements and CO<sub>2</sub> allowance pricing make their financial model unworkable
- ✚ Carbon Capture and Sequestration is Government & Industry's 'Holy Grail' with \$Billions spent to date and no realisable success so impinging fines are used instead

## What is the technology and how proven is it?

- ✚ Nickel Nanoparticle Absorption Process replicating sea urchin skeleton formation in nature
- ✚ Tested in laboratory conditions at Newcastle University and proven to remove 100% of pure CO<sub>2</sub> via a Water Screening Process
- ✚ Development process required to:
  - Prove durability & efficiency of NiNPs in a Natural Gas produced CO<sub>2</sub> waste stream
  - Design recovery and re-use process for NiNPs
  - Calculate metrics for all stages of the process.

*Indicative potential gains on investment are calculated using a floor price for CO<sub>2</sub> of £4.45 & £10.43 per tonne, an industry average PE of between 7 & 12 & a minimum investment of £25,000.*

*These range from £312k in 2018 at £4.24 per tonne to £2.5m in 2020 at £10.43 per tonne.*

## How will it make money and when?

- ✚ Sell the service to power generators on a 'shared savings' basis via 10-year minimum contracts
- ✚ Licence technology to new-build manufacturers & maintainers of existing plant
- ✚ Sell 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 (Gas) Ltd opportunity or any other VN-CP sponsored project please contact us on 0207 993 5307 or email to [SEIS@vn-cp.co.uk](mailto:SEIS@vn-cp.co.uk)