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Companies Announcements Office
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Carbon Capture and Storage Proposal for PEP11 Baleen well
(BPH investee Advent Energy release)

The Baleen well program in PEP11(Offshore Sydney Basin) offers significant potential environmental benefits in carbon capture and storage (carbon reduction) for the greater Sydney/Newcastle area .

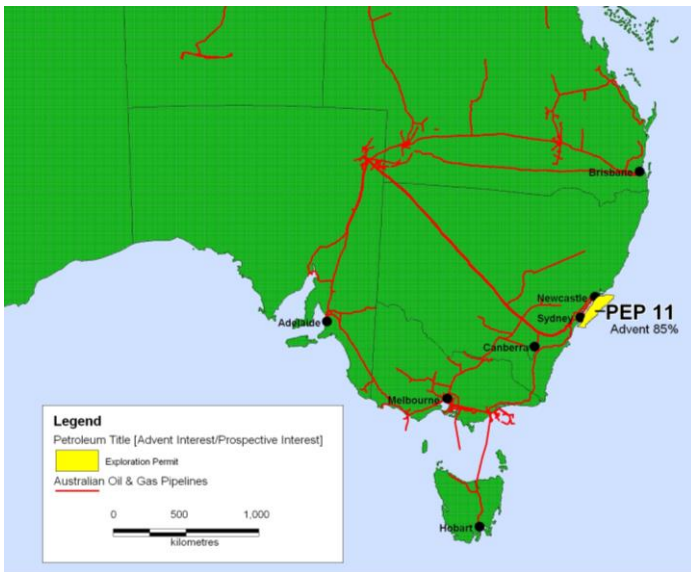
Key points

The Offshore Sydney basin offers a substantial opportunity to make a meaningful impact on the reduction of CO₂ emissions through CCS -Carbon Capture and Storage (geo-sequestration of CO₂ emissions)

- Both the International Energy agency and the Intergovernmental Panel on Climate change believe that CCS can play an important role in helping to meet global emission reduction targets¹.
- CCS is part of a suit of solutions with the potential to mitigate greenhouse gas emissions and help address climate change
- Independent published research has indicated at least 2 TCF(Trillion Cubic Ft) of CO₂ storage may be feasible in the offshore Sydney Basin². The Sydney Basin is a major contributor to Australia's greenhouse gas emissions²
- The NSW Sydney Basin region contains the largest number of stationary CO₂ emission sources in Australia including oil refineries, coke ovens and power stations. Eleven major stationary sources of anthropogenic CO₂ within the Sydney Basin alone contribute 34% of the total national emissions³
- Published research by the CO₂CRC a world leader in carbon capture, utilisation and storage (CCUS) research and Geoscience Australia has confirmed emissions projections solely from stationary sources are in the order of 705 Billion cubic metres or 24.9 TCF of CO₂ over a twenty-year period. ²
- The Otway Basin CO₂CRC is already researching the sequestration of CO₂ in Victoria but it will not deal with the largest source of CO₂ in Australia, namely NSW. The Victorian CO₂CRC aims to bring together multiple CO₂ capture projects in Victoria's Latrobe Valley, transport CO₂ via a shared pipeline and inject it into deep underground, offshore storage sites in Bass Strait.
- The offshore Sydney basin can replicate this project.
- Implementation of CO₂ capture and geological storage (CCGS) technology at the scale needed to achieve a significant and meaningful reduction in CO₂ emissions requires knowledge of the available CO₂ storage capacity⁴
- BPH Energy investee Advent Energy is proposing with its Joint Venture Partner Bounty Oil and Gas NL (ASX:BUY) to use the gas exploration drilling program at Baleen to investigate as a secondary objective the potential for CCS -Carbon Capture and Storage (geo-sequestration of CO₂ emissions)

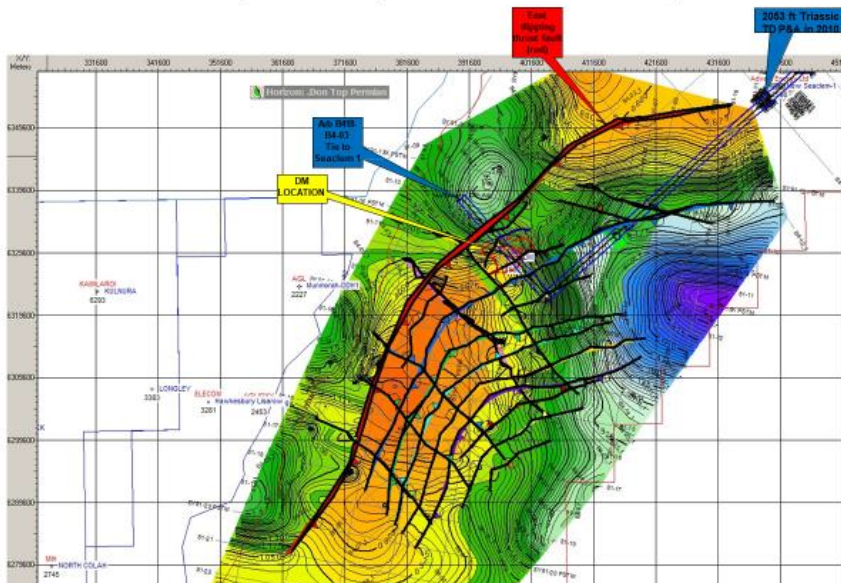
- CCS is an integrated technology with each process complementing the other one. It is a well proven and established technology and can achieve an efficiency of as high as 90% when deployed. It can capture CO2 fossil fuel emissions thus preventing the harmful gas from escaping to the atmosphere. The rising concerns over climate change combined with the efficiency of CCS is expected to benefit the CCS market over the forecast period⁴.

The offshore Sydney basin offers a solution to the gas supply issues that have impacted the east coast gas market for the last five years with estimates of up to 5.7 TCF of prospective gas resources within structural targets in the offshore area. This drill test will also investigate the potential future storage capacity for CO2 emissions capture



Location of Block PEP 11 offshore Australia (above) and location of Baleen well site (DM below)

Near Top Permian (Base Narabeen Triassic)



David Breeze (Director) authorised the release of this announcement to the market. BPH has an interest of 22.7 % in Advent Energy Ltd. Bounty Oil and Gas NL holds an interest in PEP11 (ASX :BUY) .MEC Resources Ltd (ASX MMR) holds an interest in Advent. Advent holds an 85% interest in the PEP11 permit

Notes: In accordance with ASX listing requirements, the geological information supplied in this report has been based on information provided by geologists who have had in excess of five years' experience in their field of activity. All Mineral Resource and Reserve Statements have been previously published by the companies concerned. Summary data has been used. Please refer to relevant ASX releases for details and attribution. Unless otherwise stated all resource and reserve reporting complies with the relevant standards. Resources quoted in this report equal 100% of the resource and may not represent BPH's investees' equity share.

About Advent Energy Advent Energy Ltd is an unlisted oil and gas exploration company held by major shareholders), BPH Energy (ASX: BPH), Grandbridge (ASX: GBA) and MEC Resources (ASX: MMR) Advent holds a strong portfolio of near term development and exploration assets spanning highly prospective acreage onshore and offshore Australia in proven petroleum basins. Advent Energy's asset base also incorporates both conventional and unconventional petroleum targets.

References

- (1) <https://earthresources.vic.gov.au/projects/carbonnet-project>
- (2) New South Wales-Deep Saline Aquifer Storage Potential /Geoscience Australia.Co2CRC Research Report Patchett. A. and Langford .R. 2005
- (3) The potential for geological sequestration of CO₂ in Australia: Preliminary findings and implications for new gas field development Bradshaw.J;Bradshaw.B;AllinsonG;Rigg.A;Nguyen; 2002 (In 2)
- (4) Science Direct_CO₂ storage capacity estimation: Bachu.S;Bonijoly.D;;Barruss.R;Holloway.S;Bradshaw.J Mathiassen o
- (5) <https://www.marketwatch.com /carbon-capture-and-sequestration-ccs-market-size -industry-news-2020-09-02>