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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 CO<sub>2</sub> emissions through CCS -Carbon Capture and Storage (geo-sequestration of CO<sub>2</sub> 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 targets<sup>1</sup>.
- 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 CO<sub>2</sub> storage may be feasible in the offshore Sydney Basin<sup>2</sup>. The Sydney Basin is a major contributor to Australia's greenhouse gas emissions<sup>2</sup>
- The NSW Sydney Basin region contains the largest number of stationary CO<sub>2</sub> emission sources in Australia including oil refineries, coke ovens and power stations. Eleven major stationary sources of anthropogenic CO<sub>2</sub> within the Sydney Basin alone contribute 34% of the total national emissions<sup>3</sup>
- Published research by the CO<sub>2</sub>CRC 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 CO<sub>2</sub> over a twenty-year period. <sup>2</sup>
- The Otway Basin CO<sub>2</sub>CRC is already researching the sequestration of CO<sub>2</sub> in Victoria but it will not deal with the largest source of CO<sub>2</sub> in Australia, namely NSW. The Victorian CO<sub>2</sub>CRC aims to bring together multiple CO<sub>2</sub> capture projects in Victoria's Latrobe Valley, transport CO<sub>2</sub> 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 CO<sub>2</sub> capture and geological storage (CCGS) technology at the scale needed to achieve a significant and meaningful reduction in CO<sub>2</sub> emissions requires knowledge of the available CO<sub>2</sub> storage capacity<sup>4</sup>
- 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 CO<sub>2</sub> emissions)



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 CO<sub>2</sub> 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\_CO<sub>2</sub> 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>