

ASX Announcement

23 December 2022

PARKWAY ACHIEVES SUCCESSFUL SCALE-UP OF TRANSFORMATIONAL iBC[®] TECHNOLOGY PLATFORM

Highlights

- Recently announced breakthrough in processing concentrated CSG brines with the iBC[®] technology platform, now confirmed.
- Complete iBC[®] based flowsheet successfully demonstrated on the recently commissioned iBC[®] pilot plant, confirming suitability of the technology to be scaled-up to an industrial scale.
- Successful piloting results, underpin adoption of Parkway's proprietary iBC[®] based flowsheet, as the core process technology, for the feasibility study being performed for Shell QGC.

Parkway Corporate Limited ("**Parkway**" or the "**Company**") (ASX: PWN) is pleased to advise it has achieved an important milestone in relation to the commercialisation of the iBC[®] technology platform.

During the 2022 Annual General Meeting (AGM) presentation, Parkway announced it had recently achieved a major breakthrough in relation to the treatment of concentrated coal seam gas (CSG) derived brines, through a proprietary iBC[®] based flowsheet. These highly encouraging results were initially achieved at an experimental scale on small (300 mL) brine samples, and later validated at bench scale on larger (7.5 – 12.5 L) concentrated brine samples, representing a 25 – 40x scale-up. Following confirmation the bench scale testing had achieved all key process parameters, throughout December 2022, the preferred flowsheet was subsequently scaled-up by a further 80x in the recently commissioned iBC[®] pilot plant (*Fig. 1c*), where a 1,000 L bulk CSG brine sample was tested.

The large scale iBC[®] piloting, was intended to achieve a range of critical objectives, including, i) demonstration of the scalability of the results achieved during the bench scale piloting, as well as, ii) provide confidence that each of the key unit operations in the proprietary iBC[®] based flowsheet, are capable of being implemented, and operated at a commercial scale in an industrial application. Importantly, the large scale iBC[®] piloting included all the process steps, inclusive of several pre-treatment and post-treatment stages, which collectively constitute the proprietary flowsheet developed by Parkway.

The results announced today, confirm all of the objectives from the large scale iBC[®] piloting have now been achieved successfully, with initial indications that the performance of several key unit operations within the iBC[®] based flowsheet have exceeded the performance of earlier bench scale piloting. Product samples produced during the large scale iBC[®] piloting were confirmed to be comparable to the bench scale results, with third party analytical laboratory results indicating, the quality of the primary target product (50% sodium hydroxide solution), likely to be superior based on a range of parameters. The product samples produced during the large scale iBC[®] piloting, are intended to be used for further internal testwork, as well as industry evaluation, to ensure product specifications are consistent with established industry benchmarks for the respective industrial chemical products.



1300 PARKWAY
1300 7275929
parkway-corp.com



Parkway has previously provided detailed information in relation to the market opportunities for the iBC[®] technology, as well as details of a material contract awarded by Shell QGC, for Parkway to perform a feasibility study into the potential adoption of the iBC[®] technology.

Background Information

07 Apr 2022 Parkway announced it was developing a transformational waste brine processing solution for the CSG industry, and provided an assessment of the addressable market size.

07 Apr 2022 Parkway announced it had been awarded a material contract by Shell QGC, to perform a feasibility study based on Parkway's proprietary iBC[®] technology platform.

29 Nov 2022 Parkway announced that a proprietary flowsheet developed by Parkway based on the iBC[®] technology, is a technically viable processing route for CSG derived brines, and ii) can achieve very high product recoveries, resulting in significant (>98%) waste volume reductions, in certain applications.

Additional details regarding the recent iBC[®] based piloting activities, including the large scale piloting, is outlined below (*Fig. 1*).

Figure 1: iBC[®] Pilot Plant Testing Related Images



1a: Raw feed brine and product suite (sodium hydroxide solution, lime, salt & water) from bench scale iBC[®] piloting.

1b: Post-treated causticised brine produced in large scale iBC[®] pilot plant, prior to dewatering stage.

1c: Dewatering (concentration) of causticised brine being performed in large scale iBC[®] pilot plant.

1d: Sodium hydroxide (50% NaOH) product from large scale iBC[®] pilot plant, before and after clarification process.

1e: Parkway board of directors visit large scale iBC[®] pilot plant, following 2022 AGM held on 29 November 2022.

1f: Shell QGC and Worley project team members, inspect large scale iBC[®] pilot plant on site tour on 12 December 2022.

COMMENTS FROM GROUP MANAGING DIRECTOR & CEO

Parkway's Group Managing Director & CEO, Bahay Ozcakmak, makes the following comments:



“As part of our ongoing technology commercialisation efforts, throughout 2022, we performed extensive iBC[®] related piloting activities on a range of CSG derived wastewater samples. Our piloting activities have been highly successful, confirming our view that the iBC[®] technology is capable of producing valuable products from otherwise problematic wastewaters, including concentrated brines.

In April, we provided two important updates, starting with an outline of our view of the size of the waste brine disposal challenges facing the Australian CSG industry, followed by news that Parkway had been awarded a material contract by the most advanced operator in the sector, Shell QGC, one of Australia's largest gas producers.

At the time we provided the above updates, we indicated that we expected that through the application of our iBC[®] technology:

- *relevant wastewater streams could potentially be processed through to a highly desirable zero liquid discharge (ZLD) level of treatment; and*
- *a client could both avoid substantial wastewater treatment and disposal costs, whilst simultaneously generating a potentially material revenue stream from their wastewater.*

As we approach the completion of this pivotal feasibility study, having now completed extensive process simulations, process piloting and process engineering, our confidence in the merits of our iBC[®] technology continues to improve. Through the integration of our broader technology platform, we believe the proprietary iBC[®] based process flowsheet we have developed, and now successfully piloted at a significant scale, has the potential to not only address the significant brine disposal challenges facing Shell QGC, but the industry more broadly.

Additional technical details relating to the large scale iBC[®] piloting results have been submitted to Shell QGC as a major feasibility study related project deliverable, in the form of a detailed technical report. Parkway has been advised this milestone has now been satisfied, enabling Parkway to issue an invoice to Shell QGC for the corresponding payment relating to this major milestone. Parkway has also recently submitted updated revisions of the major engineering deliverables in relation to the feasibility study and is currently focused on the techno-economic evaluation of a commercial scale process plant for Shell QGC, based on our proprietary iBC[®] based flowsheet.

Whilst the large scale iBC[®] piloting successfully treated 1,000 L (1 m³) of concentrated brine, we know the Queensland CSG industry has millions of m³ of brine sitting in waste storage ponds, without any viable alternative to treat, or dispose these highly complex brines, despite mounting regulatory pressures. We believe Parkway has the genuine opportunity to address these brine challenges for both existing CSG operations, as well as improve the sustainability of projects that are at an earlier stage of development, including outside of Queensland.

Despite a challenging year in capital markets, 2022 has been a truly transformational year for Parkway. We end the year, having successfully demonstrated that we have strategically important capabilities and technologies that address highly complex wastewater related challenges, in very large markets. These challenges are often faced by substantial and well-resourced companies, that for a host of regulatory and ESG related reasons, are increasingly required to make very significant investments to address these issues. As an emerging technology solution provider, Parkway is increasingly well placed to assist these companies develop and implement innovative solutions and share in the long-term value creation.

Finally, I'd like to thank our dedicated team, partners, clients, shareholders and all our other stakeholders for your support throughout 2022. We wish everybody all the very best for the festive season and look forward to providing further updates in the new year.”

The release of this announcement has been approved by Parkway's Group Managing Director & CEO, Bahay Ozcakmak, on behalf of the board of directors of the Company.

ADDITIONAL INFORMATION

For further information or investor enquiries, please contact:

Bahay Ozcakmak

Group Managing Director & CEO

solutions@pwnps.com

General Enquiries

1300 7275929

[1300 PARKWAY](https://www.parkway.com.au)

FORWARD-LOOKING STATEMENTS

This announcement may contain certain “forward-looking statements”. The words “continue”, “expect”, “forecast”, “potential” and other similar expressions are intended to identify “forward-looking statements”. Indications of (and any guidance on) future earnings, financial position, capex requirements and performance are also “forward-looking statements”, as are statements regarding internal management estimates and assessments of market outlook.

Where Parkway expresses or implies an expectation or belief as to future events or results, such expectation or belief is expressed in good faith and believed to have a reasonable basis. However, “forward-looking statements” are not guarantees of future performance and involve known and unknown risks, uncertainties and other factors, many of which are beyond the control of Parkway, its officers, employees, agents and advisors, that may cause actual results to differ materially from those expressed or implied in such statements. There can be no assurance that actual outcomes will not differ materially from these statements. There are usually differences between forecast and actual results, because events and actual circumstances frequently do not occur as forecast and their differences may be material.

Parkway does not undertake any obligation to publicly release any revisions to any “forward-looking statements” to reflect events or circumstances after the date of this announcement, or to reflect the occurrence of unanticipated events, except as may be required under the applicable securities laws.

ABOUT PARKWAY CORPORATE LIMITED

Parkway Corporate Limited is an Australian cleantech company focused on developing and implementing, industrial-scale innovative water treatment solutions. Parkway is listed on the Australian Securities Exchange (ASX: PWN) and is emerging as an innovative player in water related sustainability solutions. With significant inhouse technical expertise and established partnerships, Parkway is well-placed to deliver the next generation of wastewater treatment plants, incorporating the company’s portfolio of world-class technologies.

Parkway operates through three (3) core business units, comprising:

- Parkway Process Solutions (PPS) – Parkway’s primary operating division and an emerging provider of industrial water treatment products, services, solutions and associated technology to customers throughout Australia. PPS has recently established commercial relationships with key water industry participants, including globally recognised OEMs;
- Parkway Process Technologies (PPT) – Parkway’s technology development, acquisition, and commercialisation division. PPT owns a portfolio of industrial wastewater treatment technologies, including the patented aMES® and iBC® process technologies. PPT has global aspirations and is supported by a network of strategic partners, including global engineering company Worley; and
- Parkway Ventures (PV) – holds a portfolio of project equity and royalty interests, including interests relating to Parkway’s Karinga Lakes Potash Project in the Northern Territory of Australia.

Additional information regarding Parkway, including an overview of the corporate structure of Parkway and the companies in its corporate group, can be found at: www.pwnps.com/pages/about-us.

SOCIAL MEDIA & EMAIL ALERTS

Parkway is committed to communicating with the investment community through all available channels. Whilst the ASX announcements platform remains the most appropriate channel for market-sensitive news about Parkway, investors and other interested parties are also encouraged to:

- follow Parkway on LinkedIn, Twitter, Facebook and YouTube; and
- subscribe for our email alert service, Parkway News Alerts, on our website (www.pwnps.com).