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ASX RELEASE | De.mem Limited (ASX:DEM)

## INVESTOR PRESENTATION

**15 April 2024:** Australian headquartered, international water technology company **De.mem Limited (ASX:DEM)** (“De.mem” or “the Company”) is pleased to release the attached Investor Presentation with updated information about the business for current and future investors.

This announcement has been authorised for release by the Company’s CEO, Mr Andreas Kroell, on behalf of the Board of Directors.

-ENDS-

**For further information, please contact:**

**De.mem Limited**

Andreas Kroell

CEO

De.mem Limited

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**De.mem Limited (ASX:DEM)** is a decentralised water and wastewater treatment business that designs, builds, owns and operates turnkey water and wastewater treatment systems for some of the world’s largest companies in the mining, electronics, chemical, oil & gas, and food & beverage industries. Its systems also provide municipalities, residential developments and hotels/resorts across the Asia Pacific with a reliable supply of clean drinking water.

De.mem’s technology to treat water and wastewater is among the most advanced globally. The Company is headquartered in Australia and has international locations in Singapore, Germany and Vietnam. It is commercialising an array of innovative proprietary technologies.

To learn more, please visit: [www.demembranes.com](http://www.demembranes.com)

### Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of De.mem Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.

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De.mem Limited (ASX:DEM)

Domestic Water Filtration Market Opportunity

Investor Presentation

15 April 2024



# KEY INVESTMENT CONSIDERATIONS

## NSF accreditation enables USA domestic water filtration market entry



### National Sanitation Foundation (NSF) tests and requirements passed

- Demem has passed all NSF tests and requirements under NSF 53 for its graphene oxide (GO) enhanced membrane, enabling USA domestic water filtration market entry and supporting rest of world sales
- Extensive two year review process completed successfully



### De.mem's new graphene oxide (GO) enhanced membrane technology provides for unique benefits

- Superior rejection of contaminants, which increases throughput of the membrane by 20-40% vs standard
- 20-40% higher water flux, with even higher water flux for selected applications
- Technology incorporates GO nanoparticles in De.mem's standard polymer membrane
- Well suited for domestic applications due to reduced cartridge size



### Domestic Water Filtration as a Large Addressable Market

- US\$12.1 billion market in 2022 (*source: Grand View Research, November 2022*)
- Estimated US\$26.7 billion market by 2030 (*source: Grand View Research, November 2022*)
- Annual growth (CAGR) of 10.5% pa from 2022 to 2030 (*source: Grand View Research, November 2022*)



### North American wholesale distribution partnership with Purafy/Grafoid

- Demem sells on a wholesale basis to Purafy/Grafoid and takes no retail sales risk and has no distribution costs
- Purafy promotes and distributes a range of domestic and mobile water treatment products. Purafy is a division of Grafoid, a Canadian distributor of Graphene-based products for applications in key commercial markets



### Significant financial upside

- First revenues of \$55k through wholesale distribution partnership with Purafy previously announced
- Expect ~\$1m additional revenues over 2 years, only from North American and Australian markets
- Further upside from rest of world, and new products



### Visible path to operating cash flow positive

- NSF approval further supports De.mem's visible path to operating cashflow positive result
- Further upside from certification for Australian potable water applications ("Watermark"); approval process initiated



### Attractive valuation, transformational CY23 with record results, record outlook

- Trading at ~\$35m market cap, ~1.4x revenue, discount relative to global comparable acquisitions
- Record annual CY23 revenues ~\$24m (up 19%), record growth momentum and margins



## De.mem's core target market: US\$16 billion hollow fibre membrane filtration market

### Market Trends

- Global market for hollow fibre membrane filtration\*:
  - From US\$9.4 bn in 2019 to **US\$16 bn by 2026** (forecast),
  - **CAGR of 7.9%** from 2019 to 2026
  - Higher growth rates vs. overall market
  - Driven by R&D and innovation (vs other segments driven by economies of scale)
- Macro-economic drivers:
  - Population growth
  - Growing emerging markets
  - Growing industrial demand
  - Food & beverage sector applications
  - Mining & resources
- Asia-Pacific >45% of global\*



### demem Positioning & Strategy

- **Hollow fibre membrane specialization**
- **Technology broadly applicable** across multiple industries with focus on high-growth, industrial segments such as F&B and agriculture
- Proprietary hollow-fibre membrane portfolio **targeting “high value add”** applications, validated and in the market, including:
  - Potable water generation
  - Industrial waste-water treatment
  - Recycling/reuse
  - Industrial processes such as milk or beverage production
- **New Graphene Oxide enhanced membrane technology with unique characteristics**

\*Source: Global Market Insights Inc., December 2020, Report GMI3118

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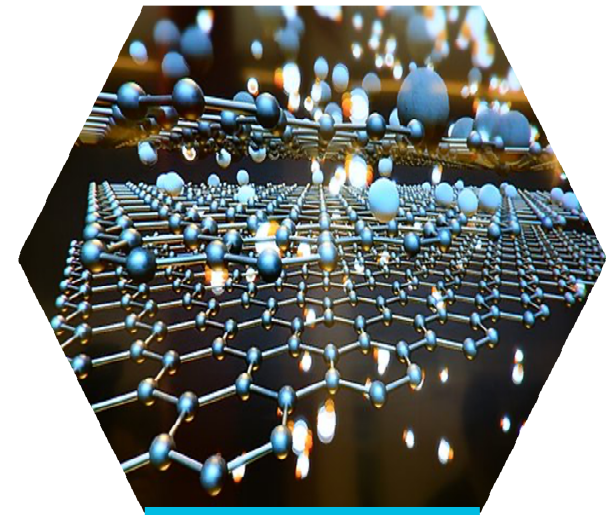
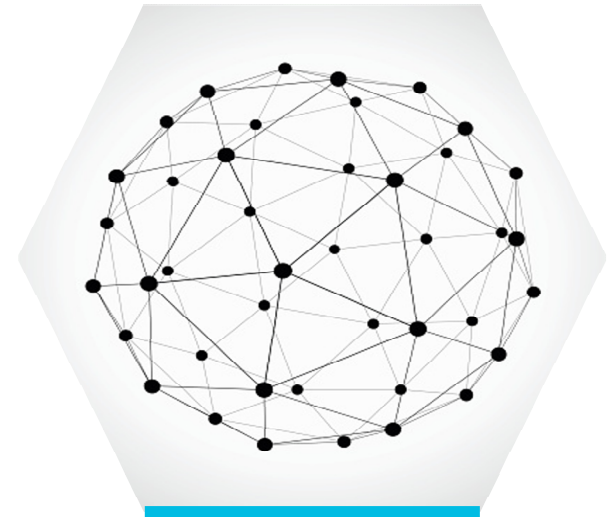
De.mem game changing advance: Graphene-Oxide enhanced Ultrafiltration membrane allows for substantially increased throughput compared to a standard membrane



- **2019: Started Research & Development in-house**
- **Sep 2021: Presented new Graphene Oxide enhanced membrane technology**
- **H1 CY22: Initiated process to obtain certification** from USA National Sanitation Foundation (American regulator for potable water treatment products)
- **Jul 2022: Announced partnership with Purafy, Canada,** to jointly launch the membrane into domestic point of entry / point of use applications in North America
- **April 2024: NSF 53 tests and requirements passed**
- **Outlook:**
  - Expecting over \$1m revenues over 2 years from North American and Australian commercialisation; Australian Watermark approval in process
  - Further upside from rest of world commercialisation
  - Further upside from new products

## Graphene is considered a new “wonder material” in membrane research & technology

- Graphene is a highly researched topic in water treatment
- Allows for super-efficient water filtration
- One of the most exciting application areas of the graphene-based materials is water and wastewater treatment
- Graphene is the new “wonder material”:
  - An individual, two-dimensional layer of carbon atoms, bonded in a hexagonal honeycomb lattice
  - One of the strongest, lightest, most conductive, and transparent materials known
  - Naturally repels water (is hydrophobic), but when oxygen groups are added to create graphene oxide (GO), the material promotes rapid water permeation
  - Other applications include flexible electric/photronics circuits, solar cells etc.



**De.mem Graphene Oxide enhanced membrane is expected to be listed on NSF website shortly**

- De.mem has passed all NSF 53 tests and technical requirements for its new Graphene-Oxide enhanced membrane
- NSF 53 is one of the leading standards for filtration products and systems, that are designed to remove certain health related contaminants in drinking water
- De.mem's membrane has specifically been tested under NSF 53 for:
  - The reduction of bacteria and cysts
  - Material safety and structural integrity
- The process has been extensive and took over 2 years to complete, with De.mem passing numerous individual test procedures
- NSF provides the basis for the commercial launch into the North American market and other countries



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# PURAFY/GRAFOID WHOLESALE DISTRIBUTION PARTNERSHIP

De.mem sells into North America via its Purafy wholesale distribution partnership



Purafy is a clean technology company that provides advanced, market-leading solutions to the world's water challenges.



*We are focused on leveraging and utilizing our proprietary and patented graphene products and applications to revolutionize the power, capacity, and cost-efficiency of existing water filtration technologies.*

(Purafy self-description)

## WHOLESALE DISTRIBUTION PARTNERSHIP

- Demem **sells on a wholesale basis** its unique GO enhanced membranes to Purafy
- Demem takes **no retail sales risk** and has **no distribution costs**

## DE.MEM MEMBRANE AS KEY COMPONENT IN ADVANCED WATER TREATMENT PRODUCTS



**SHIELD**  
Domestic  
"point of entry"  
system



**PORTAGE**  
Mobile water  
treatment  
system

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Record cash receipts / revenues, record margins, EBITDA near break-even



## Strong growth momentum

- Record annual revenues CY23 A\$23.4m, up 19% vs CY22
- Record growth momentum, with 19 quarters of cash receipts growth vs pcp
- Record December Quarter 2024 with \$7.1m cash receipts



## Significant financial upside through GO enhanced membrane sales

- First revenues of \$55k through wholesale distribution partnership with Purafy already announced – see [ASX release dated 7 February 2024](#)
- Expect ~\$1m additional revenues over 2 years, only from North American and Australian markets; Watermark certification process for Australia commenced
- Further upside from rest of world, and new products



## Visible path to positive operating cashflow

- ~\$0.7m EBITDA loss in CY23 – excluding any revenues from GO enhanced membrane sales, which commence from CY 2024
- Going forward, add expected ~\$1m additional revenues over 2 years from North American and Australian market

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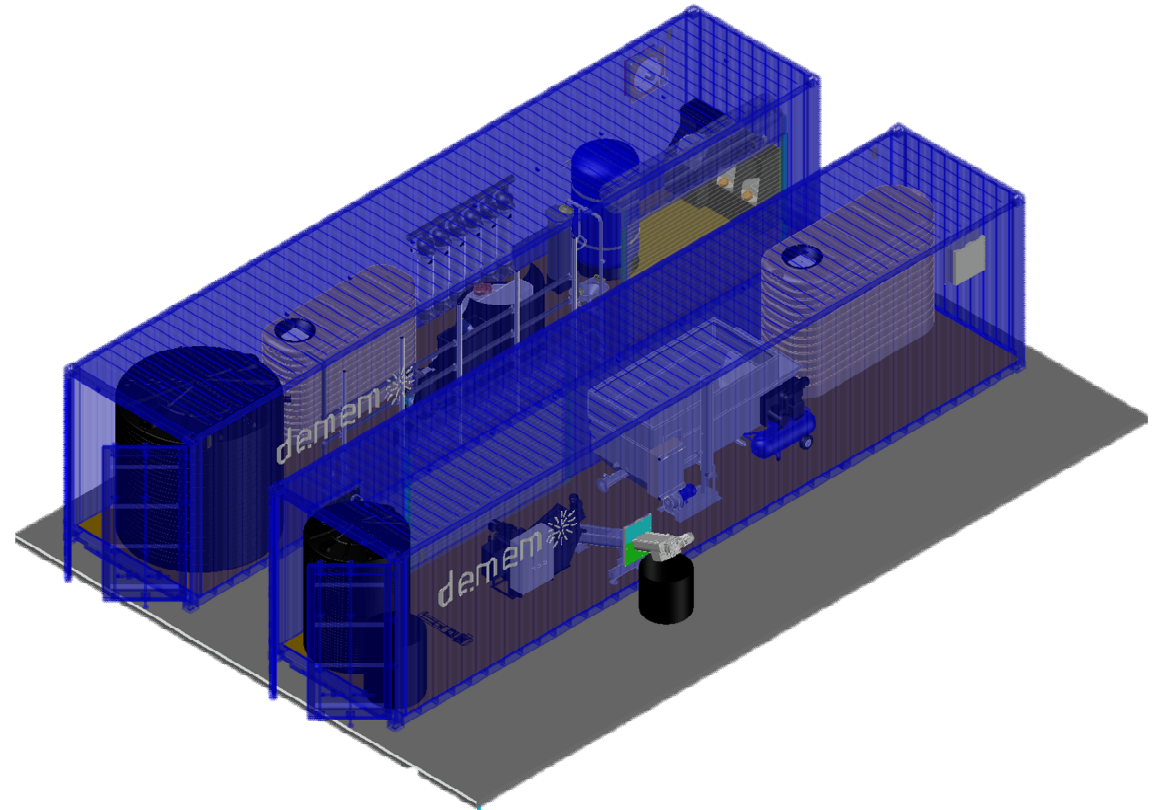
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