



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

## **DE.MEM PASSES NSF TEST PROCEDURES FOR ITS GRAPHENE OXIDE ENHANCED MEMBRANE; ENTERS US DOMESTIC WATER FILTRATION MARKET**

**15 April 2024:** Australian headquartered, international water and waste water treatment company De.mem Ltd (ASX:DEM) ("De.mem" or "the Company") is delighted to report that it has passed all National Sanitation Foundation ("NSF") test procedures under NSF Standard 53 for its Graphene Oxide enhanced ("GO") membrane technology. All technical requirements for the certification are fulfilled and De.mem expects to be officially listed on the NSF website within the coming weeks.

### **HIGHLIGHTS**

- **Certification enables immediate commercialization of USA domestic water filtration market opportunity through existing Purafy distribution partnership.**
- **Company expects over \$1m revenue over two years for potable water treatment applications in the North American and Australian markets only.**
- **Further revenue upside from entering new geographies.**
- **Other global distribution partnerships being actively pursued.**

### **NSF Requirements Passed**

De.mem has passed all test procedures and technical requirements to obtain NSF certification under NSF Standard 53 for its GO enhanced membrane technology. The certification enables the Company to actively pursue immediate commercialization opportunities in the North American and global markets.

De.mem expects to be formally listed as a NSF certified supplier on the NSF website within the coming weeks.

The NSF approval process was rigorous and lengthy, extending for more than 2 years. Pursuant to NSF Standard 53, water treatment products are performance tested and verified by the NSF for the treatment of contaminants of health concern.

### **Significant Financial Upside**

De.mem conservatively expects over \$1m in new revenues in the North American and Australian domestic potable water solutions market, from its wholesale distribution arrangement with Purafy/Grafoid (Canada), during the initial market introduction phase, as follows (see the ASX announcement "De.mem signs technology commercialization partnership agreement" dated 19 July 2022 for further details):



- Year 1 - \$300k
- Year 2 - \$750k.

Additionally, the Company sees further upside from the following:

- Year 3 ff. revenue growth.
- Rest of world market entry, particularly Asia and Europe. The Asia-Pacific region accounts for the largest share in the overall market for domestic water filters.
- New products released into the North American and other markets.

### **Unique Graphene Oxide enhanced membrane technology**

The Company is pleased to advise that the NSF certification process confirmed that De.mem's GO enhanced membrane efficiently removes bacteria, cysts and other contaminants.

De.mem's new technology was announced on 7 September 2021 (see ASX release "*De.mem Presents Next Generation Membrane Technology*"). It has since been validated in industrial projects in Singapore, and proven to deliver all the following benefits:

- 20-40% higher water flux (ie. throughput, or volume of clean water produced) compared to. standard polymer ultrafiltration membranes.
- Ultra-high water flux, even greater than the above, for selected applications.
- Superior rejection of contaminants.

### **Targeting the Global Market for Domestic Water Filtration**

Following the NSF approval, De.mem intends to target the global market for domestic water filtration, promoting Purafy's domestic water treatment products, which incorporate De.mem GO enhanced membranes.

The Company's new technology is particularly well suited for domestic water filtration applications, given the membrane's high throughput enables the size of the membrane cartridge to be reduced significantly while maintaining the same treatment capacity. This is a key requirement for domestic water filtration applications, which are typically exposed to space constraints.

The global market for domestic water filtration is a large addressable market, growing faster than the overall water treatment industry, with notable features as follows:

- Expected to grow by 10.5% per annum from 2022 to 2030 (*Grand View Research, Nov 2022, Ref #1*).
- Estimated USD 26.7 billion market by 2030 (*Grand View Research, Nov 2022, Ref #1*).
- Estimated USD 12.1 billion market in 2022 (*Grand View Research, Nov 2022, Ref #1*).



## Commercial Partnership with Purafy/Grafoid (Canada)

Following the NSF approval, De.mem will now commence the full commercial launch of its potable water applications in the USA, providing premium water filtration solutions to USA households.

De.mem has previously announced first revenues of approximately \$55k from its GO enhanced filters, as Purafy has already been promoting De.mem's GO enhanced filter cartridges into markets outside of the USA (see ASX release dated 7 February 2024, "*De.mem receives first order for GO enhanced filters*").

De.mem will initially commercialise its new technology through its existing wholesale distribution partnership with Purafy/Grafoid in the North American market. On 19 July 2022, De.mem announced a partnership with Purafy Clean Technologies, Kingston, Ontario, Canada ("Purafy"), for the manufacturing, sales & distribution of the new GO membrane technology.

Purafy manufactures and sells a range of products for domestic water filtration, as well as potable water treatment systems.

Purafy is a division of unlisted company Grafoid Inc., a graphene research, development and investment company founded in 2011, that promotes a range of graphene-based products for applications in key commercial markets.

## Management Commentary

De.mem Chief Executive Officer Andreas Kroell said:

*"With the NSF accreditation of our GO enhanced membrane technology, we are completing a key milestone for our business.*

*Through the partnership with Purafy, we will scale the commercial launch of our new technology into the American market for domestic water filtration.*

*We look forward to a successful commercial campaign and launch into a large and high-growth commercial market, which brings substantial additional revenue potential to De.mem."*

## References

- 1 Home Water Filtration Unit Market Size, Share & Trends Analysis Report By Product, By Region (Asia Pacific, Europe, Middle East & Africa, North America), And Segment Forecasts, 2022 – 2030  
<https://www.grandviewresearch.com/press-release/global-home-water-filtration-unit-market>



This release was authorized by the Company's Chief Executive Officer, Mr. Andreas Kroell.

-ENDS-

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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.