### Panasonic's nanoe<sup>TM</sup> technology inhibits adhered viruses of SARS-CoV-2 variants, recognised by OTEC and adopted by industries

- Benefits of hydroxyl radicals released by nanoe<sup>TM</sup> X neutralises air, improving indoors environment at home, work and play
- Retail outfits, public transportations and Olympic village among the many industries in Japan to employ Panasonic's nanoe<sup>TM</sup> technology
- Panasonic partners with prominent industry players to help Malaysians breath easy with nanoe<sup>TM</sup> X-fitted air solutions

Kuala Lumpur, 20 January 2022: In its mission to improve the air quality amidst the COVID-19 pandemic, Panasonic Corporation has verified the inhibitory effects of nanoe<sup>TM</sup> technology against four novel coronavirus variants (SARS-CoV-2). This verification was achieved in collaboration with the Japan Textile Products Quality and Technology Center<sup>1</sup> (QTEC).

Panasonic has been conducting research on this technology since 1997 and has realised its effectiveness in a variety of areas, including inhibiting pathogenic microorganism (bacteria, fungi, and viruses) and allergens, breaking down PM 2.5 components that have adverse effects on the human body $^2$ .

During the latest verification tests performed in September 2021, the virus titers of novel coronavirus (SARS-CoV-2) and its four variants (Alpha, Beta, Gamma, and Delta) were compared in a 45-liter test space with and without exposure to nanoe<sup>TM</sup>. As a result, the test confirmed an inhibitory effect of more than 99% activity of adhered viruses from all five types of viruses after two hours of exposure<sup>3</sup>.

Proprietary to Panasonic, nanoe<sup>TM</sup> is an ionizer that generates "nano-sized atomised water particles" using electrostatic atomisation technology. It collects invisible moisture in the air and applies high voltage to it to produce "hydroxyl radicals" contained in water. Highly reactive and oxidative, hydroxyl radicals have the potential to inhibit the activity of pollutants, breaking them down and neutralising their unpleasant effects, vastly improving indoor environments. With thorough R&D, Panasonic went on to introduce nanoe<sup>TM</sup> X technology which releases 10 times and 20 times of hydroxyl radicals than nanoe.

The proven effects Panasonic's nanoe<sup>TM</sup> technology has earned itself many homes throughout Japan. From the automotive and railway industry to the hospitality sector, nanoe<sup>TM</sup> and nanoe<sup>TM</sup> X-equipped air solutions can be found across 40 Japanese and European car models, Japan's rail transport, convenience stores, hotels, schools and even the Tokyo 2020 Olympic and Paralympic village. Most recently, luxury automobile brand Jaguar Land Rover embedded nanoe<sup>TM</sup> X technology in its in-vehicle HVAC systems in The New Range Rover.

<sup>1:</sup> The Japan Textile Quality Technology Center (QTEC) was established in 1993, which is a testing and evaluation institute for antibacterial and antiviral testing to meet the needs of society. It is an organization with the technology to meet the various test methods defined by JIS, ISO, AATCC, ASTM, GB, KC, standards of inspection organizations, standards of companies such as department stores and mass merchandisers, standards of government agencies, QTEC standards, etc. 

Main releases on verification cases

<sup>&</sup>lt;sup>3</sup> The verification results are based on a closed-test environment and not in a space actually in use

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In Malaysia, the commercial applications of the Panasonic's nanoe™ X equipped air solutions have been adopted by S P Setia, WCT Holdings, Platinum Victory, PKT Logistics, Tan Chong Group, Yamaha Music School, QRA Grocer, Sunway Malls, WORQ and the Parliament building.

"Indoor air quality has always been crucial for good quality of life and as an air quality expert, Panasonic has made various strides in engineering solutions to provide cleaner air – more so in times of the pandemic. This is where our nanoe<sup>TM</sup> X technology comes in, in the form of air purifiers to cleanse indoor air and the surrounding surfaces. This application works in small and large spaces alike and has been adopted by numerous companies to provide a safe and clean environment for both customers and employees," said Cheng Chee Chung, Managing Director of Panasonic Malaysia.

For S P Setia, over 400 units of Panasonic's nanoe<sup>™</sup> X Generator has been installed in all its 29 sales galleries nationwide, playing a key role is the company's "Freedom Bubble" – a COVID-19 safe zone where fully vaccinated visitors can have a peace of mind when visiting S P Setia's properties. Datuk Seri Koe Peng Kang, Chief Operating Officer of S P Setia Bhd shared that the company's ambition is to help customers LIVE, LEARN, WORK, PLAY but as the pandemic alters lifestyles and approach to personal hygiene, it is important to redefine these concepts and re-establish trust and confidence with customers.

"Peace of mind now holds a greater value because with less worry, our buyers can have clarity in making one of the biggest decisions in their lives, purchasing a property. We therefore see this collaboration with Panasonic Malaysia as a timely one as S P Setia reopens our doors to our buyers. Setia's Freedom Bubbles will have a cleaner, germ-ridden environment so customers can embrace LIVE, LEARN, WORK and PLAY in the new normal," said Koe.

WCT Holdings is another player in the property market that partnered with Panasonic Malaysia to equip its properties with Panasonic's air purification solutions. Investing approximately RM800,000 for this initiative, the company is steadfast in providing an additional layer of protection to complement the sanitising, disinfection and social distancing protocols that are being administered diligently and regularly throughout WCT's premises.

Dato' Lee Tuck Fook, Group Managing Director of WCT imparted that as much as it is important to stay safe outdoors, the same can be said indoors. "As retail businesses and shopping malls have started welcoming customers, we see an increase in footfalls especially to our malls. We want our customers to enjoy their experiences and have peace of mind when visiting any of our facilities. At WCT, we place great importance in taking care of our patrons and staff."

Co-working space WORQ has also invested in Panasonic air purifiers, namely the Air-e Ceiling Mounted nanoe<sup>TM</sup> X Generator, in all its outlets as they strongly believe that indoor air quality is critical for good health. "As WORQ was preparing to reopen the space to welcome our members, we were aware that many were concerned about the risk of the Covid-19 virus spreading through airborne particles and droplets. Following that, we spoke to various partners to see how we could provide a safe workspace for our members to get back to WORQ. Thanks to the collaboration with Panasonic, our members can now work productively with peace of mind," said Stephanie Ping and Andrew Yeow, founders of WORQ.

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Most of Panasonic air solution products across consumer and commercial categories carry nanoe<sup>TM</sup> X technology. For the home, Panasonic's range of air purifiers, air conditioners, Air-e Ceiling Mounted nanoe<sup>TM</sup> X Generator and portable nanoe<sup>TM</sup> X generator are equipped with nanoe<sup>TM</sup> X, making it suitable for living spaces. Commercial outfits on the other hand include Panasonic's latest NX series <u>single-split packaged air conditioner</u> systems consisting of 1-to-1 combinations (1 indoor and 1 outdoor unit) across various types of indoor units such as Cassette, Duct, Wall and Ceiling.

For more information on nanoe  $^{TM}$  X, visit  $\underline{\text{https://www.panasonic.com/my/nanoe/all/how-nanoeworks.html}$ 

### PANASONIC nanoe<sup>TM</sup> X

- **Microscopic scale** At one billionth of a cubic metre, nanoe<sup>TM</sup> X particles are much smaller than steam particles, so they penetrate deep into fabrics to deodorise
- **Huge volume** nanoe<sup>TM</sup> X Generator Mark 2 produces 9.6 trillion hydroxyl radicals per second. This increased volume of hydroxyl radicals generated by nanoe<sup>TM</sup> X translates to higher performance in inhibiting pollutants
- **Fills space actively** nanoe<sup>TM</sup> X actively fills the entire room and goes beyond the filter to inhibit adhered and airborne pollutants
- **Longer lifespan** Contained in water, nanoe<sup>TM</sup> X hydroxyl radicals have a longer lifespan, so they disperse more widely throughout the room
- Safe and non-chemical particles The safety of nanoe<sup>TM</sup> X has been tested in laboratories and institutions
- Maintenance-free No maintenance, no replacement required: nanoe<sup>TM</sup> X is generated with a device made of titanium that does not require maintenance

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#### **About Panasonic**

Panasonic Corporation is a global leader developing innovative technologies and solutions for wideranging applications in the consumer electronics, housing, automotive, and B2B sectors. The company, which celebrated its 100th anniversary in 2018, operates 522 subsidiaries and 69 associated companies worldwide and reported consolidated net sales of 6,698.8 billion ven for the year ended March 31, 2021. Committed to pursuing new value through collaborative innovation, the company uses its technologies to create a better life and a better world for customers. Learn more about Panasonic: https://www.panasonic.com/global

### **About Panasonic Malaysia**

Panasonic Malaysia Sdn Bhd is a sales, service and marketing company for the Panasonic brand of electrical and electronic products ranging from audio visuals, home appliances, air conditioners, indoor air quality, solar business, digital & video cameras, professional broadcasting equipment, system solutions, telecommunications, health & beauty care, batteries and lightings. All Panasonic products are available through our authorised dealers nationwide. For more information on Panasonic brand and products, visit our website at www.panasonic.com.my or call our Customer Care Centre at 03-7953 7600.

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