



## PowerZee energy efficiency app to be launched at SIEW 2017 to manage energy consumption at Marina Bay Sands

- An innovative energy management tool developed, tested and commercialised from Singapore
  - Co-designed by ENGIE and NTU, PowerZee trialled on campus since 2015 as part of EcoCampus Living Lab
  - Designed to educate and change behaviours on energy consumption

**SINGAPORE, 16 October 2017** – PowerZee, an energy efficiency management app, will be launched to the public at the [Singapore International Energy Week](#) which will be held from 23 to 27 October 2017 at Sands Expo and Convention Centre.

PowerZee will crowd-source from SIEW attendees to gain feedback on hot-cold temperatures of function rooms at Sands Expo and Convention Centre used for event. For every app download and first hot-cold declaration, ENGIE will plant a tree in Sumatra through social enterprise [Reforest'Action](#). Data gathered will be used by facility managers of Marina Bay Sands to optimize room temperatures, minimize energy consumption and maximise energy efficiency.

Developed by global energy leader ENGIE, and Nanyang Technological University (NTU) as part of the EcoCampus Living Lab supported by the Singapore Economic Development Board (EDB), a pilot version of the app was trialled by students within the campus in 2015, and by mid this year, a full version of the app was deployed for the campus.

The app is testament to Singapore's long-standing Living Lab approach, where companies develop, test and commercialise clean energy solutions from Singapore, for the region and beyond.

SIEW visitors can view a demonstration of the PowerZee app and try it out at the ENGIE booth:

- 23 October, Monday (9am-5pm) on level 5
- 24 to 27 October, Tuesday-Friday (9am-5pm) on level 4

### Background on PowerZee

Co-designed by ENGIE Lab and NTU, PowerZee was created as a tool to educate and engage students and staff on energy efficiency and savings through gamification, social networking and crowd sourcing, advocating better use of campus energy, water and waste. The pilot phase attracted 1,850 students, representing 4.4 percent of the NTU population, using the campus as a 'Living Lab' to test the prototype between February and June 2015.

Following the successful development and trial on EcoCampus, a full version of PowerZee has since been deployed at the entire campus of NTU, as well as Cité Internationale Universitaire de Paris in France. In October 2016, PowerZee was launched under the Energy Market Authority's (EMA) [Project OptiWatt](#) – a pilot program with 16 partners - to promote demand-side management initiatives to optimise energy consumption.

PowerZee is a product of ENGIE's commitment to reduce environmental impact through energy innovation and technology in Asia. With the establishment of ENGIE Lab Singapore,

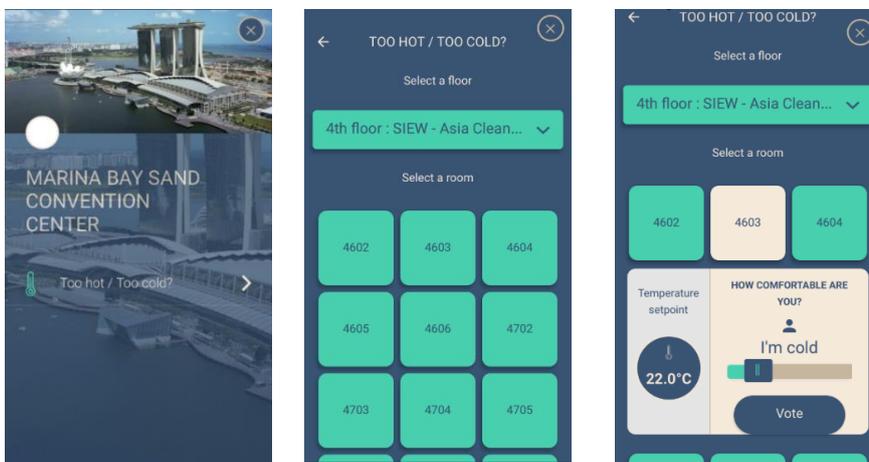


supported by the Singapore Economic Development Board (EDB), solutions will be continuously developed to address the region's energy challenges in a bid to build a better Singapore for future generations.

### PowerZee Features

Key features of the PowerZee app include:

1. **Temperature crowdsourcing tool** allows users to provide feedback on hot-cold air-conditioning temperatures in buildings across Singapore and tracked through an interactive map of the island. The data collected can be shared with the facility management team to adapt air conditioning settings.

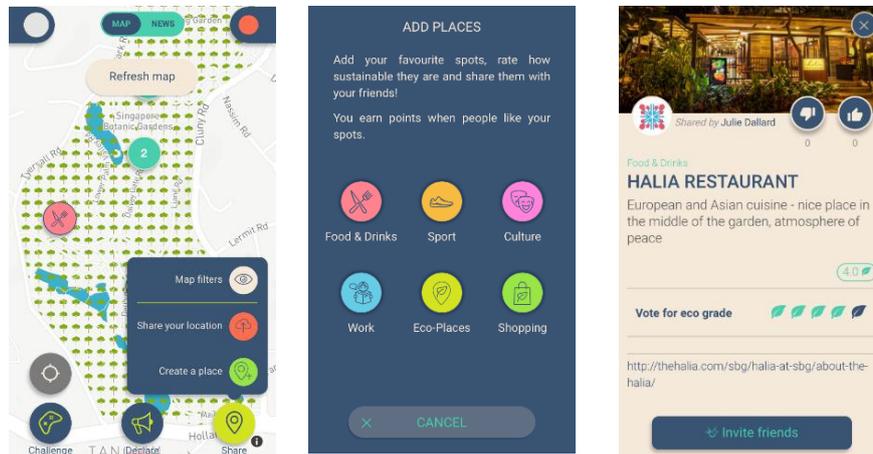


2. **Green Coach** helps to reduce energy consumption with small daily actions called “eco-gestures” and “eco-actions”. Energy savings can be achieved in seven categories: water, electricity, cooling, heating, waste, transport and lighting. Users can track their energy savings through committed eco-actions with individual statistics based on the **average impact** the eco-gestures can have on energy consumption.

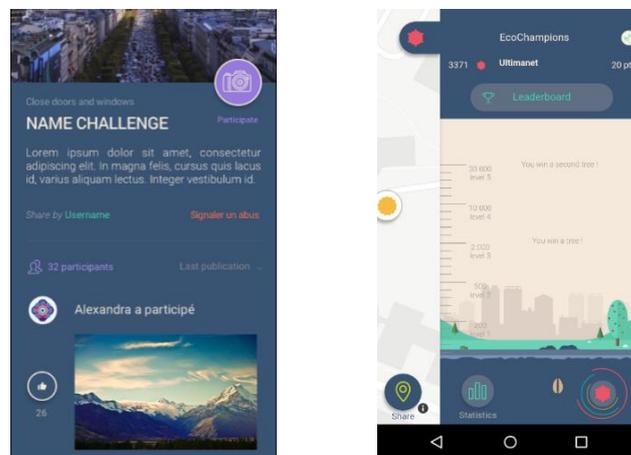




3. **Community networking tool** fosters a sustainable culture among the local community, by sharing green shopping, dining, and sporting hotspots, activities and events. It can even be used to evaluate the place's ecological impact.



4. **Game option** enables users to track their involvement in PowerZee. Each action is rewarded with a certain number of points. The game enables you to evolve through the app as your tree avatar grows and unlock new designs. You can also challenge friends and take part in bigger eco-challenges.



Download PowerZee from the App Store :

Apple Store: <https://itunes.apple.com/us/app/powerzee/id1165387066?l=fr&ls=1&mt=8>

Google Play: <https://play.google.com/store/apps/details?id=io.engielab.powerzee>

#### About ENGIE

ENGIE is committed to taking on the major challenges of the energy revolution, towards a world more decarbonised, decentralised and digitalised. The Group aims to become the leader of this new energy world by focusing on three key activities for the future: low carbon generation in particular from natural gas and renewable energy, energy infrastructure and efficient solutions adapted to all its customers (individuals, businesses, territories, etc.). Innovation, digital solutions and customer satisfaction are the guiding principles of ENGIE's development. ENGIE is active in around 70 countries, employs 150,000 people worldwide and achieved revenues of €66.6 billion



in 2016. The Group is listed on the Paris and Brussels stock exchanges (ENGI) and is represented in the main financial indices (CAC 40, BEL 20, DJ Euro Stoxx 50, Euronext 100, FTSE Eurotop 100, MSCI Europe) and non-financial indices (DJSI World, DJSI Europe and Euronext Vigeo Eiris – World 120, Eurozone 120, Europe 120, France 20, CAC 40 Governance).

ENGIE has been operating in Singapore for over 20 years, where it employs around 1,600 employees. Besides offering energy efficiency and facility management services, ENGIE trades a wide range of energy financial products as well as LNG, conducts R&D projects and holds a 30 per cent stake in Senoko Energy, which is the largest electricity generator in the country.

ENGIE Lab Singapore is the latest addition to the strong international R&D network of ENGIE, which includes 8 high-level research centres called “ENGIE Labs”, with a total of 800 researchers and experts worldwide. ENGIE Lab Singapore focuses on three areas it has identified as key challenges for Southeast Asia - microgrids, industrial energy efficiency and digital solutions.

For more information, see [www.engie.com](http://www.engie.com) and follow us on Twitter @ENGIEGroup.

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**Listed below are quotes from the partners that make PowerZee possible**

**Etienne Drouet, Director, ENGIE Lab Singapore**

“Having successfully rolled out PowerZee at NTU, our Singapore launch at Marina Bay Sands for SIEW 2017 is a milestone in our next phase of reaching out to commercial properties in Singapore. Research shows that informed energy consumers lead to potential energy savings of between 5 and 15 percent. By educating users on how to cut their energy consumption in a fun, interactive, and social manner, we aim to help facility managers save energy and improve energy efficiency through this customer ‘feedback’ mechanism. The long-term vision for PowerZee is to connect key commercial properties in Singapore to compare energy savings.”

**Nilesh Y Jadhav, Program Director, EcoCampus, Nanyang Technological University**

“PowerZee has successfully demonstrated its potential to raise environmental awareness and trigger eco-friendly user behaviour to achieve energy savings at NTU. The app, co-developed by ENGIE and NTU, provides a unique link between building occupants and facility management. It allows building owners and facility managers to engage occupants in a ‘fun way’ while ensuring their comfort and active participation in energy conservation.”

**Lee Seng Wai, Director, Policy and Planning, Energy Market Authority**

“One of EMA’s goals is to help electricity consumers optimise their energy use by enabling them to manage their energy demand. This helps to both reduce their electricity bills and ease the load on our energy system. ENGIE’s PowerZee app makes it fun for consumers to save energy by turning it into a game. I hope to see more of such innovative ways to promote energy efficiency as ENGIE has done, in showcasing their app at the Singapore International Energy Week.”

**Goh Chee Kiong, Executive Director, Cleantech, Singapore Economic Development Board**

“Singapore is well recognised as Asia’s reference city for clean technology, having developed deep capabilities within the sector to serve Singapore’s needs and the region’s growing markets. ENGIE’s successful development and commercialisation of PowerZee adds to Singapore’s competencies within the energy management space. We welcome more industry players to partner Singapore’s research institutes and leverage our infrastructure to co-develop, pilot and commercialise innovative urban solutions, before scaling up for the region.”