

MEDIA RELEASE

26 February 2021

Seeking Ideas from Youths for Carbon-free Schools or Neighbourhoods in Singapore with Minecraft: Education Edition

The Singapore Green Plan 2030 is a whole of nation movement to advance Singapore's national agenda on sustainable development. Our youth play an important role in reducing carbon emissions and saving resources and energy. To support the objectives of the Singapore Green Plan 2030¹, the second edition of the Singapore Energy Grand Challenge (Youth) will garner ideas using Minecraft: Education Edition (M:EE) from secondary school and junior college students on the following topic – **“How would your carbon-free school or neighbourhood in Singapore look like in 2050?”**. The top three teams with the most innovative ideas in each of the two categories will be awarded up to \$10,000 in cash prizes.

2 With registration starting 1 March 2021, the Challenge is a partnership between the Energy Market Authority (EMA) and Microsoft Singapore, and supported by the Infocomm Media Development Authority (IMDA). It is held as part of the Singapore Together movement where Singaporeans can partner the government and one another to co-create solutions and realise the Green Plan.

3 “As part of the Singapore Green Plan 2030, Singapore is making the transition towards a carbon-free energy future. To achieve this, we need to change the way we produce and use energy. We encourage youth to envision how emerging low-carbon technologies like carbon capture and innovative energy efficiency solutions can make Singapore more sustainable in the future.” said Mr Ngiam Shih Chun, Chief Executive, Energy Market Authority.

4 To engage more youth on sustainability issues, this year's Challenge has been expanded to include junior college students within the new Senior category, together with upper secondary students. Lower secondary students will be placed in the Junior

¹ The Singapore Green Plan 2030 aims for at least 20% of schools to be carbon neutral by 2030. Media release is available at: <https://www.greenplan.gov.sg/resource-room/2021-02-10-press-release-on-green-plan>

category. Members of the public will also be invited to vote for the entry which best resonates with their ideas for a carbon-free Singapore.

5 The inaugural Singapore Energy Grand Challenge (Youth) was launched in March 2020 and invited secondary school students to co-create Singapore's Energy Story with the question "How would your energy efficient school or neighbourhood in Singapore look like in 2050?". 92 teams across 29 secondary schools took part in the Challenge. Teams from Raffles Girls' School (Secondary), Bedok Green Secondary School and St Hilda's Secondary School were crowned the top three winners and their submissions can be viewed online at <https://go.gov.sg/segc-youth-winners>.

6 Students interested to participate in this year's Challenge may register online (<https://go.gov.sg/segc2021>) by 15 April 2021. Students must form teams of two to four schoolmates, and submit a three-minute video showcasing their idea for a carbon-free Singapore with their registration. Shortlisted teams will be contacted and invited to attend specialised workshops to help them with their final submissions. All submissions will be judged by a panel of representatives from EMA, IMDA, Microsoft Singapore and relevant industry players according to the criteria of relevance, creativity, and presentation. The top three teams from both the Junior and Senior categories will receive their awards in end-July 2021.

7 For more information on the Challenge and judging criteria, please refer to Annex A or visit the Powering Lives Portal (<https://www.poweringlives.gov.sg>). To learn about the Singapore Energy Story, refer to Annex B or visit www.BeyondTheCurrent.gov.sg.

Annex A: Factsheet for Singapore Energy Grand Challenge (Youth) 2021

Annex B: Factsheet for Singapore's Energy Story

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About the Energy Market Authority

The Energy Market Authority (EMA) is a statutory board under the Ministry of Trade and Industry. Our main goals are to ensure a reliable and secure energy supply, promote effective competition in the energy market and develop a dynamic energy sector in Singapore. Through our work, EMA seeks to forge a progressive energy landscape for sustained growth.

Website: www.ema.gov.sg | Follow us: Instagram: @EMA_Singapore | Facebook: facebook.com/EnergyMarketAuthority | Twitter: @EMA_sg

About Singapore Together

Singapore Together is about the Government working with Singaporeans, and Singaporeans working with one another, to build our future Singapore. The Government will open up more partnership opportunities for Singaporeans to participate. The Government also hopes to support more citizen-led efforts. Whatever our background or interests, we can each step forward to contribute in areas that we care about. By working together, we can turn diversity into strength and transform challenges into opportunities, to build a Singapore that present and future generations of Singaporeans will be proud of.

FACTSHEET FOR SINGAPORE ENERGY GRAND CHALLENGE (YOUTH) 2021

Target Audience	Open to all secondary school and junior college students
Platform	Minecraft: Education Edition (M:EE)
Organiser	Energy Market Authority
In Partnership with	Microsoft Singapore
Supported by	IMDA
Challenge Details	<p>Challenge Statement: “How would your carbon-free school, or neighbourhood in Singapore look like in 2050?”.</p> <ul style="list-style-type: none"> ○ The challenge will leverage Microsoft’s sandbox styled game, Minecraft: Education Edition, for participants to create their ideal Energy World and showcase their Energy Story aspirations for Singapore, with a focus on sustainability and low-carbon solutions. ○ An in-game quiz will be incorporated to acquaint youths with Singapore’s Energy Story, and to educate them on balancing the trade-offs in the energy “trilemma” – i.e. balancing energy security, affordability and sustainability.
Categories	There are two categories: Junior (lower secondary students) Senior (upper secondary and junior college students)
Prizes	Cash prizes of \$20,000 in total for two categories. In each category, the breakdown of prizes is as follows: <ul style="list-style-type: none"> ○ Top team will win \$5,000 ○ First runner-up will win \$3,000 ○ Second runner-up will win \$2,000

Competition Details

Phase 1: Registration, 1 March – 15 April 2021.	
Period	• Open from 1 March – 15 April 2021
Mode of Registration	• Through FormSG (https://go.gov.sg/segc2021)
Criteria	• Open to secondary school and junior college students.

	<ul style="list-style-type: none"> • Each team must comprise two to four participants from the same institution. • All registrations must be accompanied with their teacher's contact details. • All entries are required to be accompanied by a 3-min video of their own Minecraft world that showcases their ideal carbon-free Singapore (e.g. carbon-free neighbourhood / carbon-free school).
Phase 2: Virtual Clinic Session, 6 – 7 May 2021 (TBD) (For shortlisted teams to the semi-finals)	
Objective	<ul style="list-style-type: none"> • For shortlisted teams to gain a deeper understanding of Singapore's Energy Story, Singapore's energy trilemma and its corresponding trade-offs. • Provides training on navigating the base Challenge world and in-game quiz.
Format	<ul style="list-style-type: none"> • Half-day training conducted by both EMA and appointed vendor. • Sharing on: Singapore Energy Story (4 Switches and Energy Efficiency) and balancing trade-offs in policy decisions • Technology: M:EE skills and walk-through of base world and example scenarios
Platform	<ul style="list-style-type: none"> • Zoom
Date	<ul style="list-style-type: none"> • 6 – 7 May 2021 (TBD)
Time	<ul style="list-style-type: none"> • 2:30pm – 5:30pm
Phase 3: Virtual Final Judging – 25 June 2021 (TBD) (Top 3 teams)	
Criteria	<ul style="list-style-type: none"> • Submission of 5 min video by 11 June to qualify for the final shortlisting round. • Public voting on social media for top 3 teams of Senior Category from 18 to 24 June. This will contribute an additional bonus of up to 5 points.
Judging	<ul style="list-style-type: none"> • Judging panel consisting of senior management from EMA, IMDA, Microsoft and industry which will assess the submissions. • Top 3 teams will be contacted by 18 June to present their M:EE world on 25 June 2021 (TBD).
Platform	<ul style="list-style-type: none"> • Zoom
Event date	<ul style="list-style-type: none"> • 25 June 2021
Time	<ul style="list-style-type: none"> • 2pm – 5pm
Judging Criteria	<ul style="list-style-type: none"> • Relevance (40%): How the submission incorporates sustainable and low-carbon ideas in line with Singapore's Energy Story

	<ul style="list-style-type: none">• Creativity (30%): How the submission showcases future technologies and/or alternative energy options for Singapore in 2050• Presentation (30%): How the submission presents ideas in a coherent manner and demonstrates students' understanding of energy trilemma trade-offs
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FACTSHEET ON SINGAPORE'S ENERGY STORY

To tackle climate change concerns, Singapore has to change the way we consume and produce energy. Minister for Trade and Industry Mr Chan Chun Sing launched Singapore's Energy Story at the Singapore International Energy Week (SIEW) in October 2019 to map our efforts towards a cleaner, more reliable and affordable energy future.

2 Singapore's Energy Story sets the vision for how Singapore can power our future through four switches (Natural Gas, Solar, Regional Power Grids and Emerging Low-Carbon Alternatives), supported by efforts to improve energy efficiency across all sectors.

1st Switch: Natural Gas

Natural gas is the cleanest form of fossil fuel and will continue to be a dominant fuel for Singapore's electricity in the near future. EMA will continue to diversify our gas sources and work with our power generation companies to improve the efficiency of their power plants.

2nd Switch: Solar

Solar is the most promising renewable energy source for Singapore. Energy storage systems are also vital as it helps us counter the intermittency of renewable energy sources. Singapore is working towards meeting a solar target of 1.5 gigawatt-peak by 2025, and at least 2 gigawatt-peak by 2030, with an energy storage deployment target of 200 megawatts beyond 2025.

3rd Switch: Regional Power Grids

We are studying ways to leverage regional power grids for cost-competitive energy. This could be realised through bilateral cooperation or regional initiatives. For a start, we intend to embark on a two-year trial for 100 megawatts of electricity imports from Peninsular Malaysia to Singapore.²

4th Switch: Emerging Low-Carbon Alternatives

We are exploring emerging low-carbon solutions (e.g. carbon capture, utilisation and storage technologies, low-carbon hydrogen) that can help reduce Singapore's carbon footprint.

² This will make up about 1.5% of Singapore's peak electricity demand.

We will continue to improve our energy efficiency in the various sectors. We will also empower our households with more information to help them better manage their electricity consumption.

3 Visit www.beyondthecurrent.gov.sg for more information on Singapore's Energy Story.

4 Mr Chan also announced the inaugural Singapore Energy Grand Challenge at SIEW 2019. This is part of the government's effort to engage stakeholders such as students, researchers and industries to co-create innovative ideas to transform our energy sector.