

SEIZING OPPORTUNITIES IN A NEW ENERGY LANDSCAPE

We have come a long way in our energy story over the last 50 years. To tackle climate change, Singapore has been changing the way we consume and produce energy. Minister for Trade & 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 clean, affordable and reliable energy future.

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. Click [here](#) to find out more about the four switches.

Read on to find out about some of our initiatives to support Singapore's Energy Story.

The Future of Singapore's Energy Story

One of Singapore's biggest challenges in the next 50 years is ensuring a clean, affordable and reliable energy future. How can we overcome this challenge?

Four Switches To Power Singapore's Future

Natural Gas	Solar	Regional Power Grids	Low-Carbon Alternatives
Continue to diversify our gas sources and improve efficiency of power generation.	Deploy at least 2 Gwp of solar by 2030 which can power around 350,000 households, and 200MW of energy storage systems beyond 2025.	Potentially access more energy options and meet our collective energy needs.	Capture CO ₂ and convert them into useful products. Explore alternative energy carriers such as hydrogen.

Energy Efficiency

Reduce Carbon Emission

- Energy-efficient technologies and materials
- Optimise design
- Digitalisation

Co-creating our Energy Story

The Government will work hand-in-hand with our workforce, researchers, industries and consumers to co-create our Energy Story.

Government	Workforce	Researchers	Industry	Individuals
Lead and support energy transformation	Upskill for a new energy future	Research and develop innovative energy solutions	Develop and deploy energy-efficient and clean technologies	Adopt energy-efficient practices

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A DYNAMIC, EMPOWERING & REWARDING CAREER IN THE ENERGY SECTOR



The energy sector is critical and underpins Singapore's economy and our daily lives. In this ever-evolving landscape of disruption and change, it is important to equip our workforce with the requisite skills and competencies to meet these new challenges. EMA is working with the Union of Power & Gas Employees (UPAGE), industry partners, government agencies, local institutes of higher learning (IHLs) and training providers to help our workforce upskill and reskill themselves.

DEVELOPING OUR ENERGY WORKFORCE

SGUnited Mid-Career Pathways

Our energy companies have participated in the SGUnited Mid-Career Pathways programme, which provides mid-career job seekers with industry attachments to keep their skillsets relevant and aligned with current market trends while they prepare for more permanent roles in the future.

SkillsFuture Study Award for Power sector

Mid-careerists can also consider the SkillsFuture Study Award for Power sector, which supports early to mid-career Singaporeans in the power or related sectors in deepening their engineering skills. Supported courses include related engineering programmes offered at the IHLs, the Singapore Institute of Power and Gas and BCA Academy. Interested applicants who have not completed more than 50% of the supported course at the point of application are eligible.

Successful applicants will receive a cash award of \$5,000. The award is bond-free and can be used on top of government course fee subsidies.



For more information, scan the QR code or visit www.poweringlives.gov.sg/studyawards

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SkillsFuture Work-Study Programme

Fresh ITE and polytechnic graduates from relevant engineering courses wishing to join the energy sector can tap on the SkillsFuture Work-Study Programme. Through a combination of structured in-house training, facilitated training and assessment, customised mentorships and a company-specific capstone project, the 12- to 18-month programme aims to equip these graduates with essential, industry-relevant skills. Relevant Work-Study Programmes for the energy sector include the Specialist Diploma in Electrical Design & Operation from Ngee Ann Polytechnic (NP) and the Advanced Diploma in Power Engineering from Singapore Polytechnic (SP).

How Can You Benefit?

- Acquire relevant work experience and skills valued by the industry;
- Attain industry-recognised qualifications;
- Deepen skills through structured workplace learning, mentorship and facilitated learning; and
- Get a sign-on incentive of \$5,000 to upgrade your skills. *

**Terms and conditions apply.*



For more information, scan the QR code or visit <https://www.skillsfuture.sg/workstudy>

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INSPIRING OUR YOUTHS

Youths play an important role in Singapore's energy future. Hence, beyond rolling out initiatives for the current workforce, we will continue to engage young minds and build a steady pipeline of manpower with the passion, aptitude and desire to keep the lights on and gas flowing.

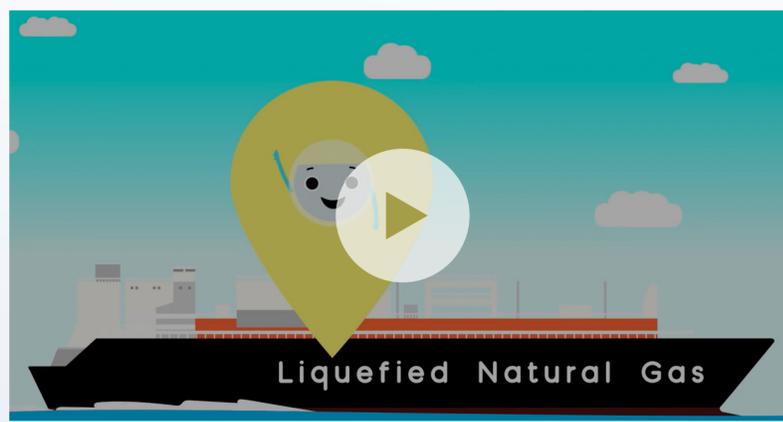
Energy Education Videos



To help youths better understand the sector and relate classroom concepts to real-life, EMA collaborated with MOE to develop [9 educational videos](#), which provide students with deeper insights into science, economics and geography concepts such as thermodynamics and sustainability.



360 degrees Geography video on sustainability



Science video on thermodynamics

Powering Lives Trails (PLTs)

The [PLTs](#) are structured and experiential learning journeys designed for students, teaching staff and education and career guidance officers from secondary schools to the IHLs. Participants will be able to get real-world insights into the power sector and experience first-hand how we secure a reliable energy supply to power our little red dot.

The 5 sites under the PLTs are:

1. Singapore Liquefied Natural Gas (LNG) Terminal;
2. Sembcorp Cogen @ Banyan Plant;
3. Power System Control Centre;
4. Pulau Ubin Micro-grid Test-bed; and
5. Singapore District Cooling Plant.



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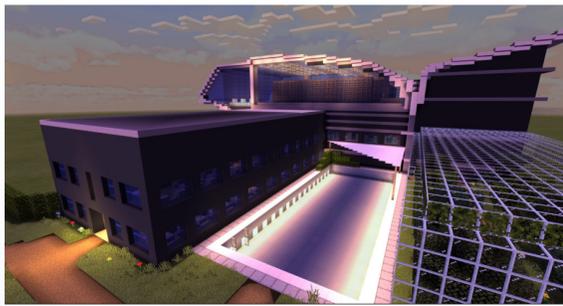
Singapore Energy Grand Challenge (Youth)



The Singapore Energy Grand Challenge (SEGC) (Youth) was launched in March 2020 to excite, inspire and encourage youths to co-create and build the energy system they envision for Singapore in 2050.

Targeted at secondary school students, participants were required to design their ideal energy world in Minecraft: Education Edition (M:EE) based on the theme: "How would your energy efficient school or neighbourhood in Singapore look like in 2050?".

Watch the video below for the top 3 submissions from SEGC (Youth) 2020: <https://go.gov.sg/segc-youth-winners>



Sembcorp-EMA Energy Challenge (SEEC)



The Sembcorp-EMA Energy Challenge (SEEC) engages students from the ITE, polytechnics and universities on energy issues and aims to excite them on the opportunities and challenges in the power sector. The SEEC's unique 3-in-1 concept allows participants to gain insights into life as a power engineer via:

- Experiential learning journeys;
- A computer simulation game (PowerQuest); and
- Internship opportunities at Sembcorp.

Winners will also stand to win attractive cash prizes.

Through the management of a virtual power plant across three job roles - Environmentalist, Corporate Leader and Operations Specialist – participants will be able to better appreciate the real-world considerations of operating a power plant. Depending on their job roles, players are given the responsibility of managing and developing a power ecosystem (e.g. maintenance and R&D) while taking into account the profitability, reliability and environmental impact of the power plant.

Join us and show off your skills at the SEEC, and embark on your energy journey!



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NURTURING PASSIONATE INDIVIDUALS TO JOIN THE ENERGY SECTOR

Scholarships

Students who are keen to embark on a rewarding, exciting and meaningful career in the energy sector can apply for the SgIS or EIS.

• The Singapore-Industry Scholarship (SgIS)

In partnership with the Singapore Government, industry partners offer the SgIS to Singapore Citizens who are either prospective or current university undergraduates and are passionate about joining the energy sector.

For more information on the SgIS, scan the QR code or visit www.poweringlives.gov.sg/sgis



• The Energy-Industry Scholarship (EIS)

The EIS is Singapore's first dedicated scholarship for the energy sector. Open to Singapore Citizens and Permanent Residents who will be/are pursuing relevant engineering courses (e.g. mechanical engineering, electrical power engineering) at the ITE or polytechnics.

For more information on the EIS, scan the QR code or visit www.poweringlives.gov.sg/eis



MEET OUR EIS SCHOLARS 2020!



“ When I talk to my peers, many don't realise what goes on behind a power switch and would often take electricity for granted. Energy is essential for many things and I am thankful to be given the opportunity to get a head-start in joining the energy sector. I value job stability and the career progression pathways mapped out in the Skills Framework for Energy and Power have further assured me of opportunities in this dynamic sector. ”

*James Lum Yew Ji,
Diploma in Electrical and Electronic Engineering, Year 3,
Singapore Polytechnic*



“ I chose a career in engineering because I am naturally curious about how things work. I believe technology will have a big impact on the energy sector and look forward to tapping on it to develop smart energy solutions for Singapore. ”

*Liew Zeng Kit Gustavus,
Diploma in Electrical Engineering, Year 2,
Ngee Ann Polytechnic*

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DEVELOPING POWER ENGINEERING CAPABILITIES FOR THE PUBLIC SERVICE

Power Engineering Professionals for the Public Service (PEPS)

Beyond the sector, EMA is also working with various government agencies to build deep power engineering capabilities within the Public Service. Find out more about the different job roles in the Public Service in the video below:



Stories from the Frontline

Hear from two power engineering professionals from the Land Transport Authority (LTA) and Defence Science and Technology Agency (DSTA):



“ I find great satisfaction and a deep sense of achievement in my work knowing that power engineering has contributed towards a safe, comfortable and reliable public transport system for my family, friends and the community. ”

*Tess Lim Hui Yin,
Senior Project Engineer,
Rail Infrastructure & Expansion
(Rail Services 6 Division / Power Supply Section, LTA)*



“ Combining digital tech with creativity in design, construction and management, I deliver resilient and smart defence infrastructure to MINDEF and the SAF. Beyond defence, I also contribute my electrical expertise to support nationwide events such as the National Day Parade. ”

*Kenrick Hor,
Senior Programme Manager,
Building and Infrastructure, DSTA*

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