





Singapore Energy Transition and Singapore International Energy Week (SIEW) 2025





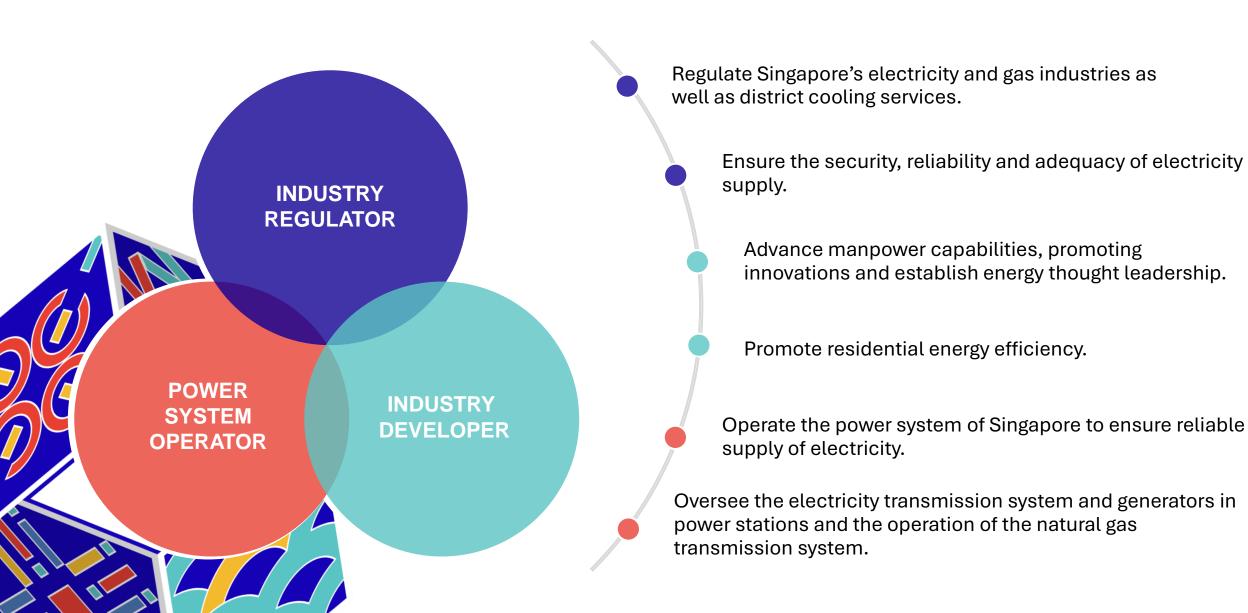
# **AGENDA**

- 1. Overview of Role of EMA
- 2. Singapore Energy Transition
- 3. SIEW





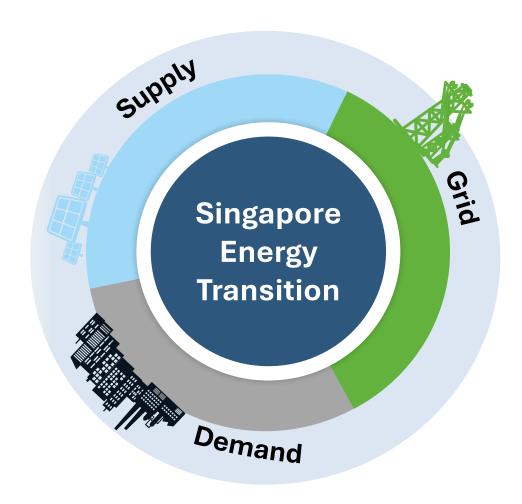
### **ROLE OF ENERGY MARKET AUTHORITY**



### **SINGAPORE ENERGY TRANSITION**

The Singapore Energy Transition is a multi-pronged strategy that outlines the key paths for Singapore's transition towards a more sustainable future.

It aims to reduce the power sector's emissions, through supply, grid, and demand measures while ensuring that Singapore's power system remains secure, reliable, and sustainable.









### **Natural Gas**

Mainstay, continue to diversify our gas sources and improve efficiency of power generation

#### Solar

Maximise solar deployment and use ESS to manage solar intermittency





### Regional **Power Grids**

Pursue electricity imports to access cleaner and costeffective energy beyond Singapore's borders

### Hydrogen

Develop the use of low-carbon hydrogen for power generation





#### **Carbon Credits**

Leverage international carbon markets to address residual and hardto-abate carbon



# **GRID**





#### **Decentralisation**

Create a multi-layered grid to manage the growth of distributed energy resources and improve grid reliability

### **Digital Solutions**

Leverage digital technologies to enhance grid planning and operations



### Pacing of Demand Growth

Actively manage growth of energy demand to better manage rollout of low carbon options and keep costs affordable

### **Shaping of Consumption Patterns**

Other Low-Carbon

**Alternatives** 

Pre-position

Singapore for new

low-carbon supply

alternatives such as

carbon capture,

utilisation and storage, geothermal

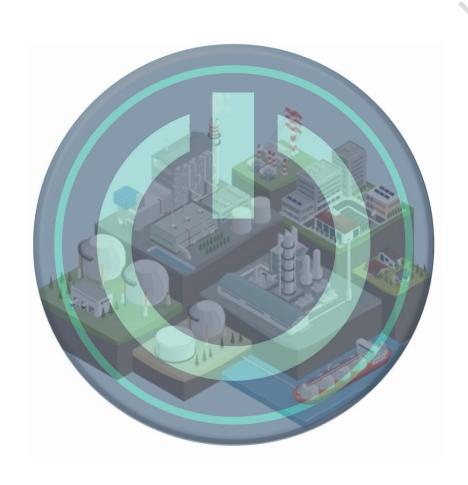
Shape end user consumption patterns to optimise the power system



# DEMAND STRATEGIES



# 1<sup>ST</sup> SWITCH: DIVERSIFY NATURAL GAS SOURCES FOR EFFICIENT POWER GENERATION



~95% of Singapore's electricity is generated using imported natural gas today.

Singapore will develop a second LNG terminal to meet energy needs and enhance energy security.

As the cleanest burning fossil fuel, natural gas will remain a key energy source before other low-carbon energy sources become viable.

New natural gas power plants must be hydrogen ready.



# 2<sup>ND</sup> SWITCH: MAXIMISE SOLAR DEPLOYMENT AND GRID RESILIENCE WITH ESS SUPPORT

#### By 2025

**1.5 GWp of solar**, which can power around 260,000 households



#### **By 2030**

At least **2 GWp of solar**, which can power around 350,000 households



The 285MWh Sembcorp ESS is Southeast Asia's largest ESS and is the fastest in the world of its size to be deployed.

- Solar is our most promising renewable energy source, creatively deployed in our in landscarce city.
- Singapore has achieved our 2025 target of deploying 1.5GWp of solar and on track to meet our target of at least 2GWp by 2030.
- However, intermittency from rain and cloud cover in our tropical climate challenges solar energy. Daytime harvesting limits availability.
- Energy Storage Systems (ESS) address this by managing electricity supply-demand mismatches, ensuring grid reliability, and regulating second-to-second power fluctuations.

# 3<sup>RD</sup> SWITCH: IMPORT REGIONAL ELECTRICITY FOR CLEAN ENERGY



- EMA targets to import around 6GW of low-carbon electricity by 2035, which is around one-third of our energy supply then
- While Singapore has limited renewable energy resources, we are able to access low-carbon electricity that is abundant in the region by connecting to regional power grids.
- EMA has launched Request for Proposals for large-scale electricity imports.
- To date, EMA has issued Conditional Approvals to ten projects to import low-carbon electricity from Australia, Cambodia, Indonesia and Vietnam.



# 4TH SWITCH: POSITION SINGAPORE FOR LOW-CARBON SUPPLY ALTERNATIVES

As an alternative energy-disadvantaged country, we are investing early in early low-carbon technologies for future commercial viability.

### **Carbon Capture, Utilisation and Storage (CCUS)**

 Singapore is exploring carbon capture and storage to decarbonise the economy starting with a CCS project to capture and aggregate CO2 emissions.

### **Low-Carbon Hydrogen**

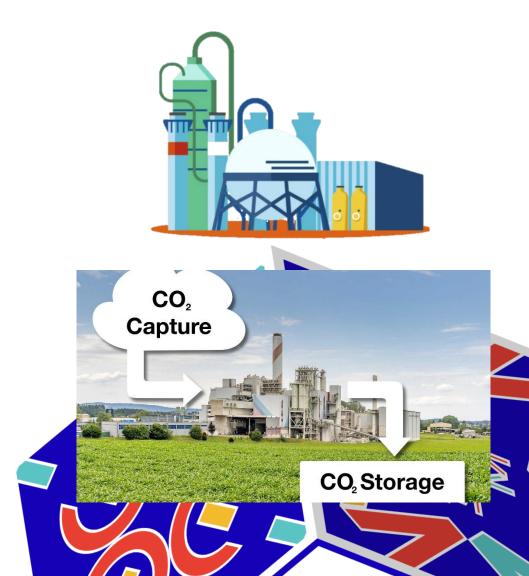
 We will develop local H<sub>2</sub> capabilities and infrastructure for future commercial viability integration.

### Geothermal

 We will assess our deep geothermal resource potential for power generation at depths of up to 10km.

#### Nuclear

 We will monitor advanced nuclear technologies' progress to keep energy options open and assess their implications.







The Singapore International Energy Week (SIEW) is an official trademarked event by the Energy Market Authority of Singapore (EMA). It is an annual platform for energy professionals, policymakers and commentators to discuss and share best practices and solutions within the global energy space.

The 18th edition of SIEW will be held from 27 – 31 October 2025 in Singapore.



# **SIEW AT A GLANCE**

Monday 27 Oct	Tuesday 28 Oct	Wednesday 29 Oct	Thursday 30 Oct	Friday 31 Oct
SIEW Summit	Singapore-IEA Forum	SIEW Energy Insights	SIEW Thinktank Roundtables	
		SIEW TechTable		
	Singapore-IRENA High Level Forum	Asia Gas Markets Conference		SIEW Thinktank Roundtables
		Asian Downstream Summit/ Asian Refining Technology Conference/ Ammonia & Carbon Capture Asia		
	Asia Clean Energy Summit + Asia Carbon Summit			
	Conference on Electric Power Supply Industry (CEPS			SI)
SIEW Summit Gala Reception	SIEWConnects	SIEWConnects	SIEWConnects	Youth@SIEW
SG60@SIEW Energy Showcase				



**Envisioning Energy Tomorrow, Building Systems Today** 



# **EVENT HIGHLIGHTS**







### SG60@SIEW Energy Showcase & Gala Reception

 Highlighting energy innovations and Singapore's energy transition plan towards 2065

### **SIEW Academy**

 A network of distinguished global energy thought leaders who will shape the discourse and chart new pathways for our energy future

### **Conversations on Future-Ready Technologies**

 Deep dives into Nuclear Energy, CCUS, Artificial Intelligence applications, Biomethane and other emerging technologies



## **SIEW SUMMIT THEMES**



ENVISIONING ASIA'S ENERGY FUTURE



THE NEXT ENERGY
BREAKTHROUGH:
SCALING FUTURE
ENERGY
TECHNOLOGIES



THE FUTURE OF
ENERGY:
STRATEGIC ROLE
OF NATURAL
GAS IN GRID
STABILITY



FINANCING OUR ENERGY FUTURE





## **DISCUSSION AREAS**

- **1. Strengthening regional interconnectivity –** advancing power grids and energy systems integration across borders
- **2. Fostering collaboration in energy research -** sharing knowledge and collaborating on energy solutions
- **3. Development and deployment -** implementing new energy technologies and infrastructure
- **4. The role of natural gas as a transition fuel -** leveraging natural gas to bridge the shift to a sustainable energy future
- **5. Building a people-centric system -** ensuring energy solutions address community's needs and aspirations
- **6. Resilient energy system -** creating robust and adaptable energy infrastructure

### **PAST SPEAKERS AT SIEW**



Lawrence Wong
Prime Minister and Minister
for Finance
Republic of Singapore



H.R.H. Prince Abdulaziz
Bin Salman Al Saud
Minister of Energy
Kingdom of Saudi Arabia



The Hon Chris Bowen
Minister for Climate Change
and Energy, Australia



The Rt Hon Kwasi Kwarteng MP Minister of State, Minister for Business, Energy and Clean Growth, UK



Dr Angela Wilkinson Secretary General and Chief Executive Officer World Energy Council



Dr Fatih Birol
Executive Director
International Energy Agency
(IEA)



Joseph McMonigle
Secretary General
International Energy Forum
(IEF)



Jonathan Brearley
Chief Executive Officer
OFGEM



Mr Ramesh Subramaniam
Director General and Group
Chief Sectors Group, Asian
Development Bank



**Dr -Ing Christian Bruch**President & CEO
Siemens Energy AG

### **PARTNER EVENTS**



The 12th edition of Asia Clean Energy Summit will take place on 28-30 October 2025 at Marina Bay Sands Expo. As Asia's leading event focused on clean energy technology, policy and finance, the Asia Clean Energy Summit provides a common platform for regional thought leaders in both the public and private sectors to collaborate on critical issues and opportunities in harnessing clean energy for the future. The 2<sup>nd</sup> Asia Carbon Summit's programme will discuss how Asia is positioning itself at the forefront of global climate action while creating substantial economic opportunities for stakeholders across the region.

# **S&P Global**Commodity Insights

Asia Gas Markets Conference

The Asia Gas Markets Conference, a premier two-day industry gathering, brings together energy leaders to explore Asia's evolving gas markets, focusing on regional trends, strategic partnerships, and sustainable energy transition. The programme covers critical topics from geopolitical impacts and market dynamics to future energy innovations, including hydrogen integration and carbon capture.



Asian Downstream Summit/ Asian Refining Technology Conference/ Ammonia & Carbon Capture Asia is Asia's most influential downstream refinery and petrochemical event. This year's edition will be held from 29-30 October at Marina Bay Sands Singapore.



The 25th Conference of Electric Power Supply Industry (CEPSI), a flagship event of the Association of the Electricity Supply Industry of East Asia and Western Pacific (AESIEAP). Hosted by SP Group in conjunction with SIEW 2025, the event will bring together regional participants to build on strategic conversations and collaborative efforts toward the energy transition.

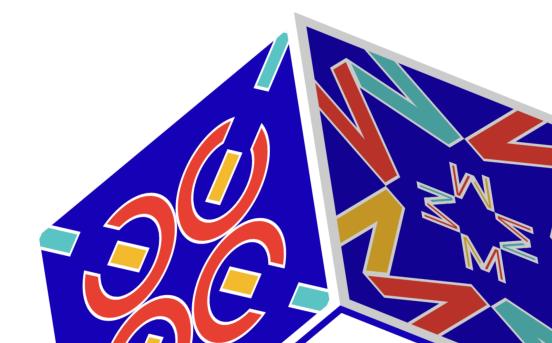


# **BUILD CONNECTIONS**

**SIEWConnects:** Your gateway to global energy leaders and industry insights

Register your interest for our upcoming sessions:

- Beijing, China (May)
- Washington DC, United States (June)





## **SPONSORSHIP OPPORTUNITIES**

THOUGHT LEADERSHIP BRAND RECOGNITION

MARKETING AND MEDIA PROFILING

NETWORKING AND BUSINESS DEVELOPMENT

Contact us if you have any questions on the sponsorship opportunities available. The team can customise a package to maximise the benefits for your organisation.

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# **DON'T MISS OUT**

REGISTER FOR SIEW

FIND OUT MORE ABOUT SIEW 2025

**BE A SPONSOR** 



Registration opens in July. Scan the QR code above to register your interest.









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