

# Challenges in EE&C Policy & Support Measures towards CN

Group B

Lao PDR, Vietnam, Thailand, Singapore



# Laws, Policies, Strategies, Regulations

## The legals exist:

- Electricity Law
- National Power Development Strategy
- RE strategy
- Bio fuel Decree
- EE&C Policy and Decree
- Clean Energy Promotion for Transportation strategy
- Decision on Cookstove standard
- Decision on MEPS for AC

## Future Plan

- EM system development
- Roadmap development
- Update the Energy target for supply and demand of electricity such as Energy intensity
- Improve the EE&C in industries, buildings, transport and appliances

# Technical Support

- Human Resource development
  - Capacity building
  - EE&C knowledge
  - R&D
- Innovation technology
  - EV technology
  - Hydrogen-Ammonia
  - Solar
  - Wind
  - Biomass

# Financial Support

- National Energy Development Fund
- International Fund and Loans

# International Co-operation

- Communicate the power trade
- Sharing information on energy policy planning
- Sharing information on the innovation technologies

# Lao PDR

Laws & Regulations	EE&C laws in place
Measures & Challenges	<p>Enhancing Renewable Energy Generation</p> <ul style="list-style-type: none"> <li>- Electricity Transmission (National &amp; International): To upgrade the transmission system to efficiently transmit renewable energy [International Co-operation &amp; Funding]</li> </ul> <p>EE&amp;C and RE promotion</p> <ul style="list-style-type: none"> <li>- Initial cost of RE installation for industries, buildings, transport and households is high. Price subsidy is needed to promote RE installation.</li> <li>- Electrical Equipment EE Labelling &amp; Standardisation: To setup systems for energy labelling and standardisation of electrical equipment [Capability Building]</li> </ul> <p>Electric Vehicles</p> <ul style="list-style-type: none"> <li>- EV battery charging infrastructure: To expand the EV charging infrastructure</li> <li>- EV manufacture: To improve EV battery performance [Technology]</li> </ul> <p>Green Hydrogen</p> <ul style="list-style-type: none"> <li>- New facilities for Green Hydrogen manufacture [Technology, Regulation, Capacity Building, International Co-operation]</li> </ul>

# Vietnam

Laws & Regulations	<p>EE&amp;C laws in place since 2010. Plan to update them.</p> <p>Environmental Protection law in place. Includes a section on Climate Change with details on Emissions Mitigation.</p>
Measures & Challenges	<p>Enhancing Renewable Energy Generation</p> <ul style="list-style-type: none"> <li>- Renewable Power: Supply/Demand mismatch will require Energy Storage [Technology &amp; Funding]</li> <li>- Electricity Transmission (National): To upgrade the transmission system to efficiently transmit renewable energy [Funding]</li> <li>- Wind Power: New wind farms [Technology &amp; Funding]</li> </ul> <p>Green Hydrogen</p> <ul style="list-style-type: none"> <li>- New facilities for Green Hydrogen manufacture [Technology, International Co-operation]</li> </ul> <p>Energy Efficiency</p> <ul style="list-style-type: none"> <li>- EE technology: To improve the awareness of latest EE technologies for specific sectors [Capability Building]</li> <li>- Funding for EE: To improve the funding support to implement EE measures [Funding]</li> <li>- Energy Services: To develop the ESCO sector [Capability Building]</li> </ul> <p>Electric Vehicles</p> <ul style="list-style-type: none"> <li>- EV battery charging infrastructure: To expand the EV charging infrastructure [Technology, Funding]</li> <li>- EV manufacture: To improve EV battery performance [Technology]</li> <li>- EV vehicle maintenance: To train workforce to maintain EVs [Capability Building]</li> </ul>



# Thailand

Laws & Regulations	<ul style="list-style-type: none"> <li>- EE&amp;C laws in place. Existing laws will be enhanced to include the measures under the National Energy Policy (NEP)</li> <li>- Climate Change Act is in development.</li> </ul>
Measures & Challenges	<p>Enhancing Renewable Energy Generation</p> <ul style="list-style-type: none"> <li>- Solar Power: Small solar power generators (households, small industries) are unable to commercialize the solar power generated [Technology]</li> <li>- Solar Power: To identify ways to manage solar PV waste [Technology]</li> <li>- Energy Storage System (ESS): Currently the system is expensive and not widely available [Technology, Funding, international Co-operation]</li> </ul> <p>Green Hydrogen</p> <ul style="list-style-type: none"> <li>- New facilities for Green Hydrogen manufacture [Technology, International Co-operation]</li> </ul> <p>Energy Efficiency</p> <ul style="list-style-type: none"> <li>- EE technology: To improve the awareness of latest EE technologies for specific sectors [Capability Building]</li> <li>- Funding for EE: To improve the funding support to implement EE measures [Funding]</li> </ul> <p>Electric Vehicles</p> <ul style="list-style-type: none"> <li>- EV battery charging infrastructure: To expand the EV charging infrastructure [Technology, Funding]</li> <li>- EV manufacture: To improve EV battery performance [Technology]</li> </ul>

# Singapore

Laws & Regulations	EE&C laws in place since 2012. Revised in 2017 and 2024. Carbon Pricing Act in place.
Measures & Challenges	<p>Renewable Energy Imports</p> <ul style="list-style-type: none"><li>- Availability of cost-effective renewable electricity from neighbouring countries[International Co-operation]</li><li>- Ability of regional power grids to export renewable electricity. Regulations and Infrastructure may need to be developed.</li></ul> <p>Hydrogen</p> <ul style="list-style-type: none"><li>- Identify cost-effective means to import Hydrogen [Technology]</li></ul> <p>CCUS</p> <ul style="list-style-type: none"><li>- Identify and implement cost-effective means to capture and utilize Carbon from industries [Technology]</li><li>- Identify and store captured Carbon reliably in the region [Regulations, International Co-operation]</li></ul> <p>Energy Efficiency</p> <ul style="list-style-type: none"><li>- EE technology: To improve the awareness of latest EE technologies [Capability Building]</li><li>- Funding for EE: To improve the funding support to implement EE measures [Funding]</li></ul>