

4. Insights from the 5th Energy Efficiency Policy Workshop

APERC Workshop

The 61st Meeting of APEC Energy Working Group (EWG)
21 June 2021

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Summary

- **EEP workshop background**
- **Workshop topic**
- **Agenda**
- **Key insight one – investing in value chains to support recovery**
- **Key insight two – need for policy impact assessment**
- **Conclusion and Summary**

Peer Review on Energy Efficiency

- Initiated by APEC leaders in Sydney Australia, September 2007
- Broad review of energy efficiency policies of a volunteer APEC economy carried out by a Review Team of experts to provide recommendations on potential improvements.
- Contributes towards achieving the shared APEC energy intensity reduction goal of 45% from 2005 levels by 2035
- PREE has been hosted by 11 economies:
 - Chile, New Zealand, Viet Nam, Thailand, Chinese Taipei, Peru, Malaysia, Indonesia, The Philippines, Brunei Darussalam and Mexico.
- Follow-up PREE hosted by five economies:
 - Viet Nam, The Philippines, Thailand, Malaysia and Peru.

Energy Efficiency Policy Workshop

- Part of the APEC peer review on energy efficiency program
- Held in conjunction with EGEEC every year
- Designed to share to share useful information for policy planning, including PREE outcomes
- Previous topics have included:
 - Government and donor funding mechanisms
 - Policy and program evaluation
 - Conformity Assessment
 - Fuel Economy Regulations



Workshop Topic

Economic Recovery through Energy Efficiency

- This topic was chosen to highlight the role that energy efficiency could play in economic stimulus packages that economies were developing in response to Covid-19.
- Hosted by Hong Kong, China on 18 November 2020
- GDP across APEC fell by 1.8% in 2020
- The APEC economies responded with unprecedented stimulus packages
- Morning session – Energy Sectors
- Afternoon session - Evaluating Energy Efficiency Programmes

Workshop Agenda

- **Morning session – Energy Sectors**

- **Keynote Address**

- “The Role of Industrial Energy Efficiency in Economic Recovery and Green Growth” Hiroyuki Tezuka, Fellow, JFE Steel Corporation

- **Panel discussion:**

- Peter Graham, Executive Director, Global Buildings Performance Network
 - Nuwong Chollacoop, Renewable Energy and Energy Efficiency Research Team Leader, ENTEC, Thailand
 - Steve Heinen, Manager of Energy System Analytics, Vector, New Zealand

- **Afternoon session – Evaluating Energy Efficiency Programmes**

- **Keynote Address**

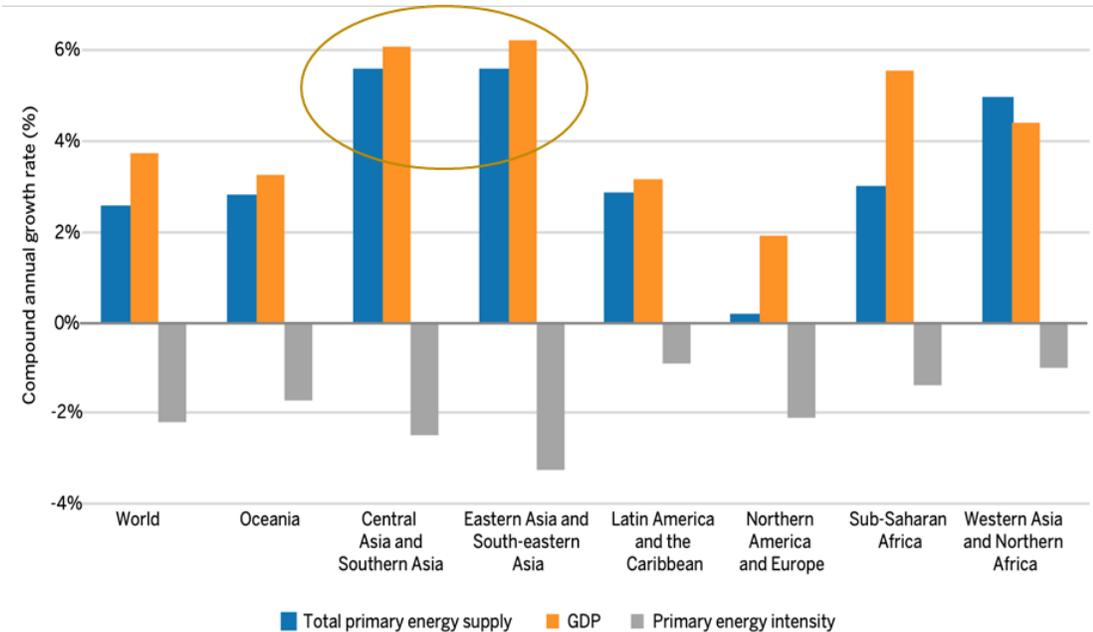
- “Recover Better with Sustainable Energy in Southeast Asia: A Case for Energy Efficiency”
Presentation of recently released Sustainable Energy for All (SEforALL) report by Alvin Jose, Senior Energy Specialist

- **Panel discussion:**

- Nurzat Myrsaliev, Coordinator of Industrial Energy Accelerator at United Nations Industrial Development Organization (UNIDO)
 - Alexander Mastrovito, Head of Sustainability Asia-Pacific, Scania
 - Nina Campbell, Energy Efficiency & Conservation Authority (EECA), New Zealand

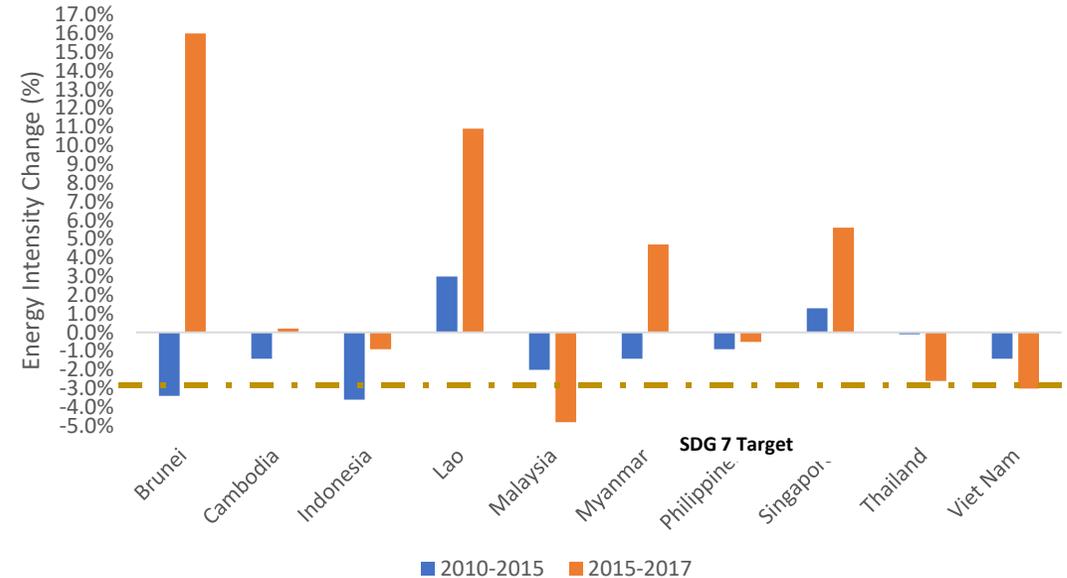
The challenge for energy efficiency

GDP and primary energy growth rate 2019



Source: 2020 SDG7 Tracking Report SE4all

Energy intensity change



Source: 2020 SDG7 Tracking Report SE4all

- Asia is the global growth story with energy required to sustain its development efforts and meet its development potential
- Energy Efficiency is the cheapest fuel that can power businesses towards higher competitiveness and strengthen resilience.
- There is still a lot of untapped EE potential in Asia that remains to be unlocked.

Benefits by promoting regionalization of RE and EE equipment value chains

End – Users

Utilities /
Power
Plants



Distributed
Solution
Providers



Households
and
Businesses

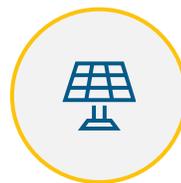


Up-Stream Value Chain

Component Manufacturing/ Assembly



Solar Home
Systems



Panels



Turbines/
Blades



Storage
Devices



Inverters



Wires /
Poles

Up-stream Value Chain for Energy Efficient Appliances



Fans/
Refrigerators



LED lighting



Entertainment /
Connectivity



Machinery


GOAL:
30% of value
chain
localized/regionalized

Benefits for promoting energy efficiency

- **Sectoral specific**
 - **Industry**
 - Creates new high-value jobs in energy management/auditing/training
 - Reduced product production cost
 - **Buildings**
 - Direct health benefits are between 8%-22% of value of energy savings (e.g. In EU up to EU2.86Bn health savings by 2020; Indirect benefits include better physical & mental health. Improving thermal comfort in homes is a priority)
 - **Transport**
 - Lower running costs
 - Emissions reductions – health benefits
- **Cross sector**
 - Transport – demand for manufacturing and materials for new energy efficient vehicles
 - Buildings – Each US\$1M invested in energy efficient buildings creates about 14 job-years of net employment. Productivity of the construction value chain also improves.
 - Industry – Supports other sectors and creates jobs

Actions needed to achieve these benefits - Overarching

Investing in Energy Efficiency

- Acknowledging investments in efficiency are the cheapest way to reduce energy demand and GHG emissions.



Promoting Ease of Doing Business

- Reducing number and time to obtain permits
- Reducing or eliminating import duties and taxes
- Promote entrepreneurship and cross border trade



Eliminating Fossil Fuel Subsidies

- Allowing cost of fuels to reflect market prices
- Creating additional fiscal space in budgets
- Enhancing the competitiveness of renewables



Investing in People to Ensure Access to Jobs

- Ensuring investment in human capital to take advantage of job creation opportunities
- Building a talent pool needed as local industries are established
- Enhancing capacity of Government institutions

Actions needed to achieve these benefits - sector specific

▪ Buildings

- Strong Building codes and regulation
- Rebates, green loans, grants
- Rating schemes
- Capacity building

▪ Transport

- Adopt fuel efficiency standards and emission standards
- Information campaigns and labelling programs
- Support electrification through the development of infrastructure

• Industry

- Implement best available technologies
- Adopt energy management systems (ISO 50001 Energy Management System)
- Support financially sound energy efficiency investments

Policy impact assessment

Importance of policy impact assessment

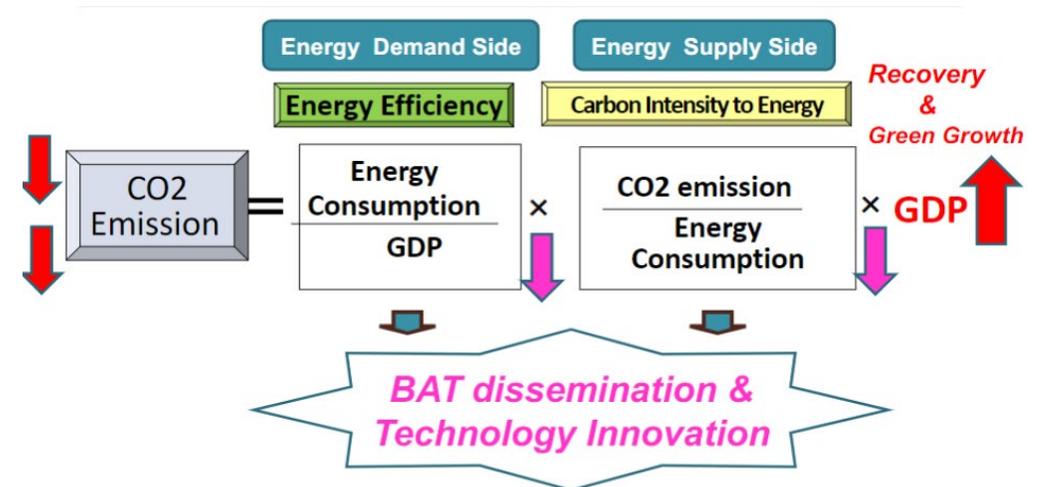
- Evaluating the performance of energy efficiency programs is vital.
- Good evaluation structures allow governments to put money where it makes the most impact
- Boosting existing successful programs using stimulus can be more beneficial than creating new programmes

Evaluation programs should be:

- Linked up evaluation for related programmes
- Include all relevant stakeholders (including beyond government)
- Supported by good data through alignment of metrics and methods
- Widely disseminated by sharing learnings across agencies

Include a range of metrics beyond energy

- The affect of policy on low-income communities
- Health and well-being
- **Job creation**
- **Kaya identity**



Conclusion and next steps

- **Concluding thoughts**

- Energy efficiency programs can play a important role in supporting economic growth
- Simple policies can create long value chains which create many jobs
- Understanding the effects and impacts of these policies is vital to ensuring their success
- Building strong and effective policy impact assessment programs help evaluate efficacy
- Also provides useful information for targeting stimulus packages in the future

- **Next steps**

- The 6th Energy Efficiency Policy Workshop will be held in conjunction with the EGEE57 in the second half of 2021.
- Topic-to be announced.



Thank you

<https://aperc.or.jp/publications/reports/pree.php>



Asia-Pacific
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