

EWG 11 2019A: **Disruptive Tech** into **RE&EE** Policies for Energy Security

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Policies for Energy Security

- Objective

- To review the **impact of disruptive technologies** on the power generation and distribution, transport, and buildings sector
- To share **best practices on RE&EE policies** to accommodate the **disruptive technologies**
- To **build capacity on integration of the disruptive technologies** for energy security

- Duration

- April 2020 – October 2021 (after extension)

- Contractor & Team members

- Chiang Mai Rajabhat University (CMRU)

- Progress

- Progress Report 1 submitted
- WS organized (virtual) on 29-30 Apr 2021
 - ✓ **98 participants from 13 Economies** (31 female: 67 male) attended virtual
 - ✓ **Best practices** on disruptive tech supporting RE&EE policies shared
 - ✓ **Brainstorming** on RE&EE policies for **smooth integration** of disruptive technologies

- Future Work

- Drafting final report with **policy recommendation** on accommodating **disruptive tech on RE&EE policies**

- Cooperation between RE&EE experts

- Support draft **RE&EE polices** to integrate disruptive tech toward **APEC RE&EE goals**



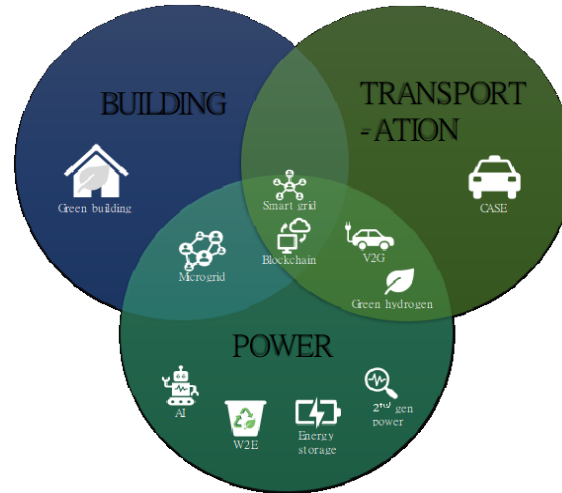
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Department of Alternative
Energy Development and Efficiency
MINISTRY OF ENERGY

Disruptive Technology in 3 Energy Sectors



Initial Findings on Impact of Disruptive Technologies on RE&EE

- The disruption **creates a change** in cost, technology capability, new business model, digital transformation, and change of policy.
- Some technologies **affect across the three sectors**, bringing greater effects to the society such as Smart Grid, Microgrid and Blockchain.
- To accommodate the disruptive technologies, it is necessary to call for a strong **policy support** which depends on market maturity.
- To promote the technologies in appropriate markets, it requires **customer support and empowerment as well as incentives and subsidies** from government to make up economic viability gap.
- Regulatory **sandboxes or demonstration projects** are also good approaches to introduce new technologies to the market.
- **Reduced taxation** for investors who invest in these technologies should also be introduced to facilitate technology penetration.
- It is also important to ensure that the technologies are **beneficial and not harmful to human being and society**.

Key Takeaway from Workshop

- “There’s no disruption without value creation”
- Policy support for large scale adoption
- Required regulation & standards
- Market support/community readiness
- Data security and protocol management
- Prepare waste from disruptive technology ie. battery

Analysis Factor

- Technology
- Challenge/Key success factors
- Policy need/Driving Mechanism
- Market/Future Trend

Female 32%
Male 68%

