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APEC 55th EGNRET & 56th EGEEC Joint Meeting (virtual)

13 May 2021
EWG 04 2019A: Exploring Co-Benefit for RE&EE

• Objectives
  • To share best practices of successful joint projects for RE&EE implementation with co-benefit in power generation and distribution, transport, and buildings sector
  • To develop guideline with criteria and framework for joint RE&EE projects with co-benefit technically and economically
  • To share example of cost benefit analysis (CBA) on successful projects (e.g. RE&EE in transport sector - EV & biofuel)
  • To build capacity and network for co-benefitting project developers in designing, planning and assessing potential RE&EE joint project

• Duration
  • August 2019 – October 2021 (after extension)

• Contractor
  • National Energy Technology Center (ENTEC)

• Co-sponsoring Economies
  • China; Chinese Taipei; Japan; Malaysia; Philippines; Republic of Korea; USA

• Summary of the Progress
  • Key success factors extracted from successful RE&EE projects & policy criteria in APEC
  • Progress Report 1 submitted
  • WS1 organized (virtual-hybrid) on 18-19 Mar 2021
  • Technical criteria for RE&EE co-benefit proposed through Eligibility-Priority-Scoring APEC proposal evaluation
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- **APEC Energy Goals**
  - EE: 45% energy intensity reduction by 2035
  - RE: Doubling the share of renewable energy by 2030

  EE goal can be easily achieved while further efforts are needed for the RE goal

- Literature review of past projects/activities co-benefitting RE&EE (19 reports)

- **Key success factors**
  - Important keywords in the review of projects and activities co-benefitting RE&EE are extracted
    - These are technical characteristics that potentially lead to increase in share of renewable energy and decrease in energy intensity
    - They are categorized and ranked based on frequency of observation in the reports

<table>
<thead>
<tr>
<th>No.</th>
<th>Category</th>
<th>Some of them are already in APEC quality criteria. Need to find ways to include these keywords into consideration of future APEC project</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Flattening peak demand</td>
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<td>2</td>
<td>Low carbon</td>
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<td>3</td>
<td>Digital</td>
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<td>4</td>
<td>Electricity/electrification</td>
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<td>5</td>
<td><strong>Cost effectiveness</strong></td>
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<td>6</td>
<td>Fuel standards</td>
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<tr>
<td>7</td>
<td>Local context</td>
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<td>8</td>
<td>Sustainability</td>
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</tbody>
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- There are past projects/activities aiming to achieve EE goal, that have contributed to RE goal.
- If support is given to such projects/activities, it will be easier to achieve RE goal, and can potentially save cost for RE investment

There are several areas in each sectors where projects fulfilling EE goal can also contribute to RE goal
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Workshop 1

82 participants from 13 Economies (27 female: 55 male)

Findings & Conclusions

- Experience shared by top runners confirmed opportunities in project designing and successful implementation of projects co-benefitting RE&EE.
- Key success factors and technical criteria for RE&EE co-benefit confirmed.

Proposal of Technical criteria for RE&EE Co-Benefit

- Slight modification of eligibility criteria: To be eligible projects must:
  - Focus on activities which will contribute to achieving APEC’s aggregate energy intensity reduction goal of 45% by 2035 which was agreed at the APEC Leaders Meeting in Honolulu in 2011; and/or
  - Focus on activities which contribute to achieving goal of doubling the share of renewables by 2030 which was endorsed by the APEC Leaders Meeting in Beijing in 2014; and

- Addition to priority: Projects on Low-Carbon Model Town (LCMT) or Projects that support both RE&EE APEC goals through at least two of the following 6 technical criteria will be funded first:
  1. Flattening peak demand,
  2. Low carbon,
  3. Digital,
  4. Electricity / Electrification,
  5. Fuel standards,
  6. Local context

- Additional consideration for scoring: Proposed technical criteria can be considered for scoring of Criteria 1 (Supports the priorities of the APEC Fund to which it is applying).

Future Work

- WS2 planned (virtual) for Jul 2021 for capacity building in RE&EE project developers
- Cooperation between RE&EE experts
  - Support draft criteria for APEC RE&EE project evaluation to achieve APEC RE&EE goals