



ASIA PACIFIC REGIONAL WORKSHOP ON INTEGRATING MARKET MECHANISMS TO THE IMPLEMENTATION OF INDCs/NDCs

15 FEBRUARY 2016
BANGKOK, THAILAND
Grande Centre Point Ratchadamri

**Sharing Experiences in developing
THAILAND's INDCs/NDCs**

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**“THAILAND INTENDS TO REDUCE
GREENHOUSE GAS EMISSIONS BY 20%
FROM BAU LEVEL BY 2030”**

*The level of contribution could increase
up to 25%*

subject to adequate and enhanced access to
technology development and transfer,
financial resources and capacity building
support through a balanced and ambitious
global agreement under the UNFCCC

Integrated Assessment Modeling: Thailand's INDC Development

I. Review, Analyze mitigation potentials Thailand's INDC contributions

- Review of UNFCCC and Thailand CDM and NAMA 2020 Mitigation
- Status/Readiness of Thailand for NAMA contributions
- Countermeasures/Priority areas of INDC Contributions

II. AIM/Enduse and Multi-benefit analyses

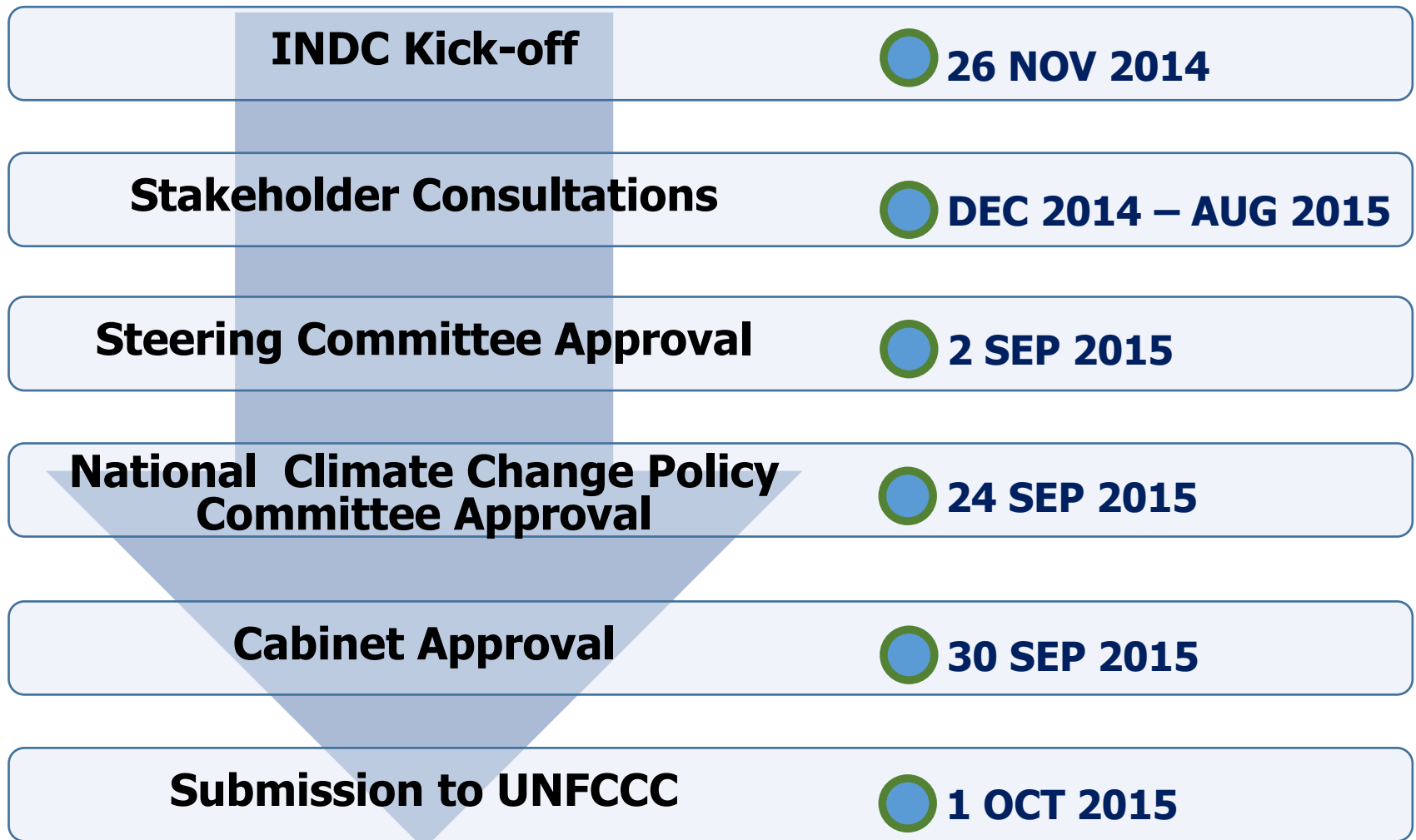
- AIM Modeling Energy
→ Result From Model
(Energy Consumption, CO₂ Emission, Abatement Costs)
→ GHG Mitigation Potential
- **INDC Assessment** (Cost Effectiveness, Co-benefit, Energy Security)
→ Policy measures for INDC agreement

III. Consultation and INDC preparation

- Stakeholders Involvement
- Thailand's INDC Readiness and Contributions

NCCC & Gov't Decision

Thailand's INDC Process: A History

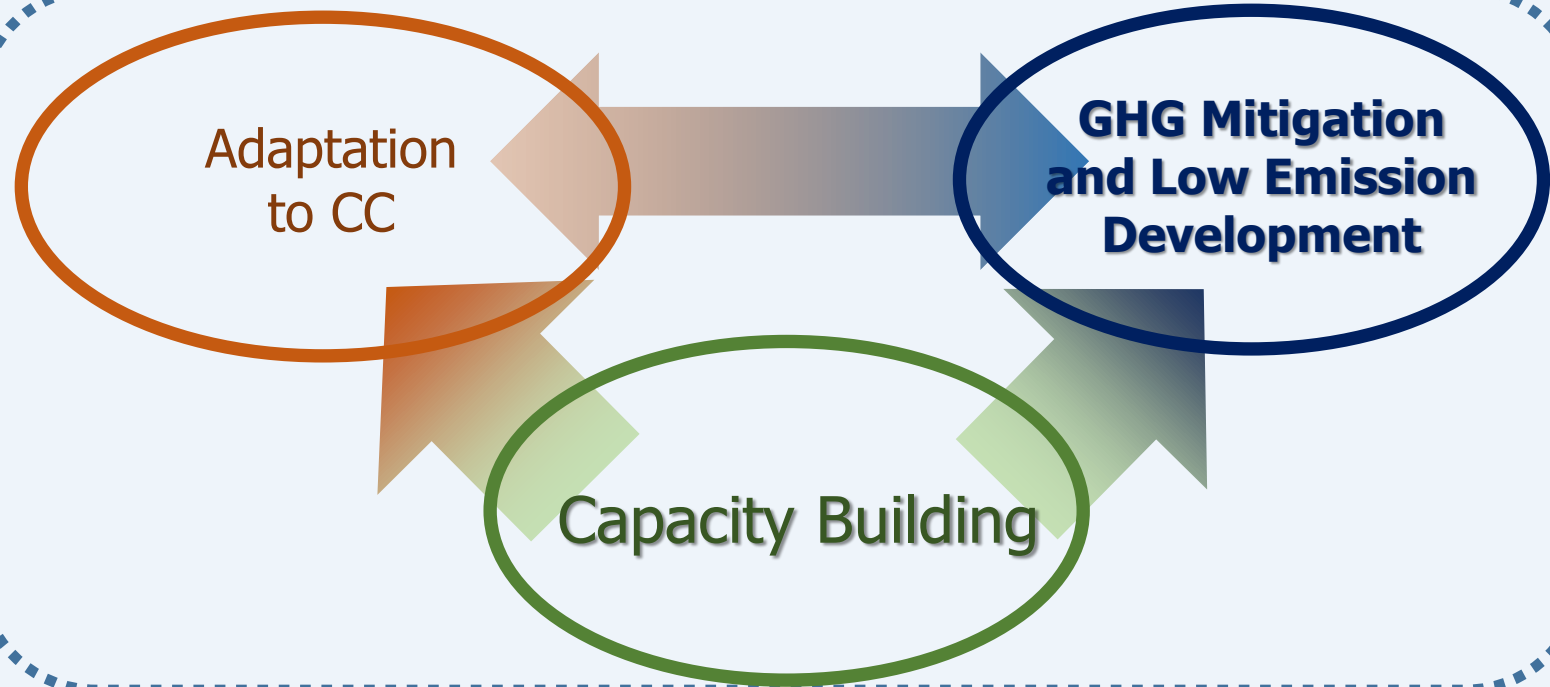


Source: (ONEP, 2015)

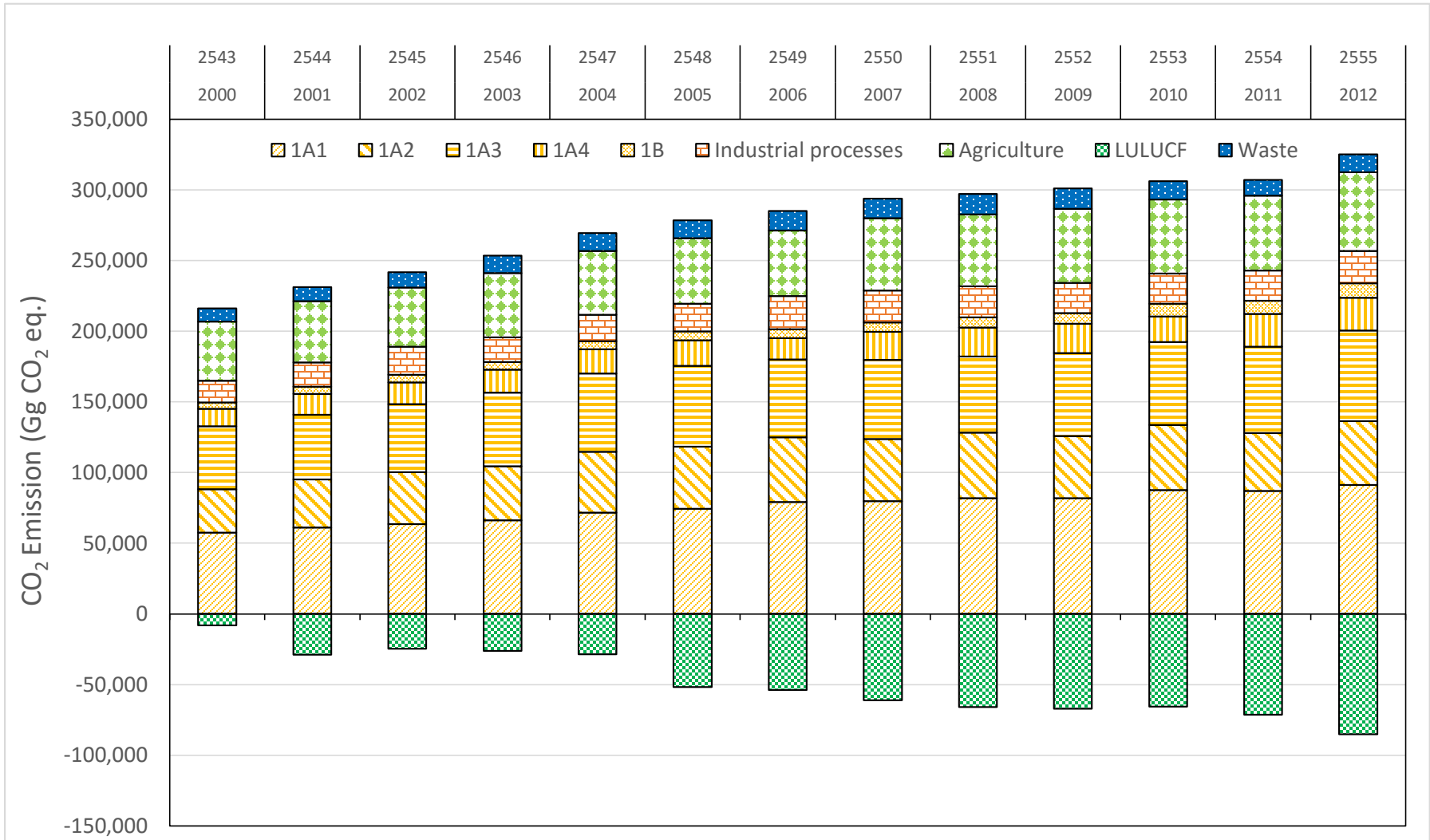
How to Achieve Thailand's INDC

National Economic and Social Development Plan

Climate Change Master Plan 2015-2050

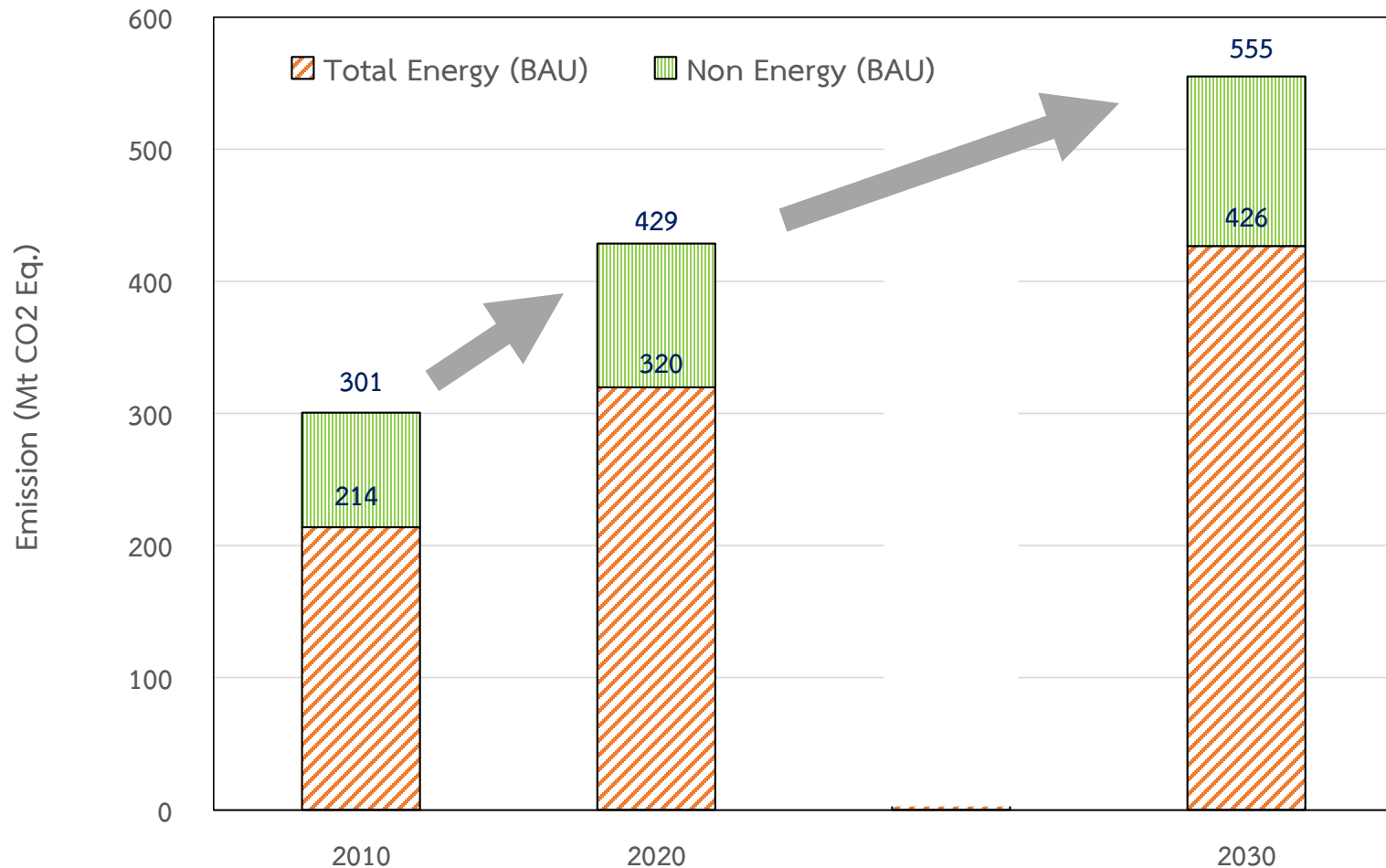


Trend of Thailand's GHG Inventory in BUR1 (2000-2012)



Source: (ONEP, 2015)

Projection of Thailand's Economy-Wide GHG Emissions BAU of Thailand's INDC



Source: (ONEP, 2015)

Notes: 1) Non energy emissions include wastes, agriculture and IPPU. LULUCF is excluded.

Thailand's INDC: Mitigation contribution

ACCOMPANYING INFORMATION

Baseline:	BAU projection from 2005 BAU2030: approx. 555 Mt-CO ₂ e
Time frame:	2021-2030
Coverage:	Economy-wide (Inclusion of land use, land-use change and forestry will be decided later)
Gases:	CO ₂ , CH ₄ , N ₂ O, HFCs, PFCs, SF ₆
Assumptions and methodological approaches:	<ul style="list-style-type: none">- Global warming potential on a 100-year timescale in accordance with the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report- National statistics, including sector activity and socioeconomic forecasts

Thailand's INDC: Mitigation contribution

ACCOMPANYING INFORMATION

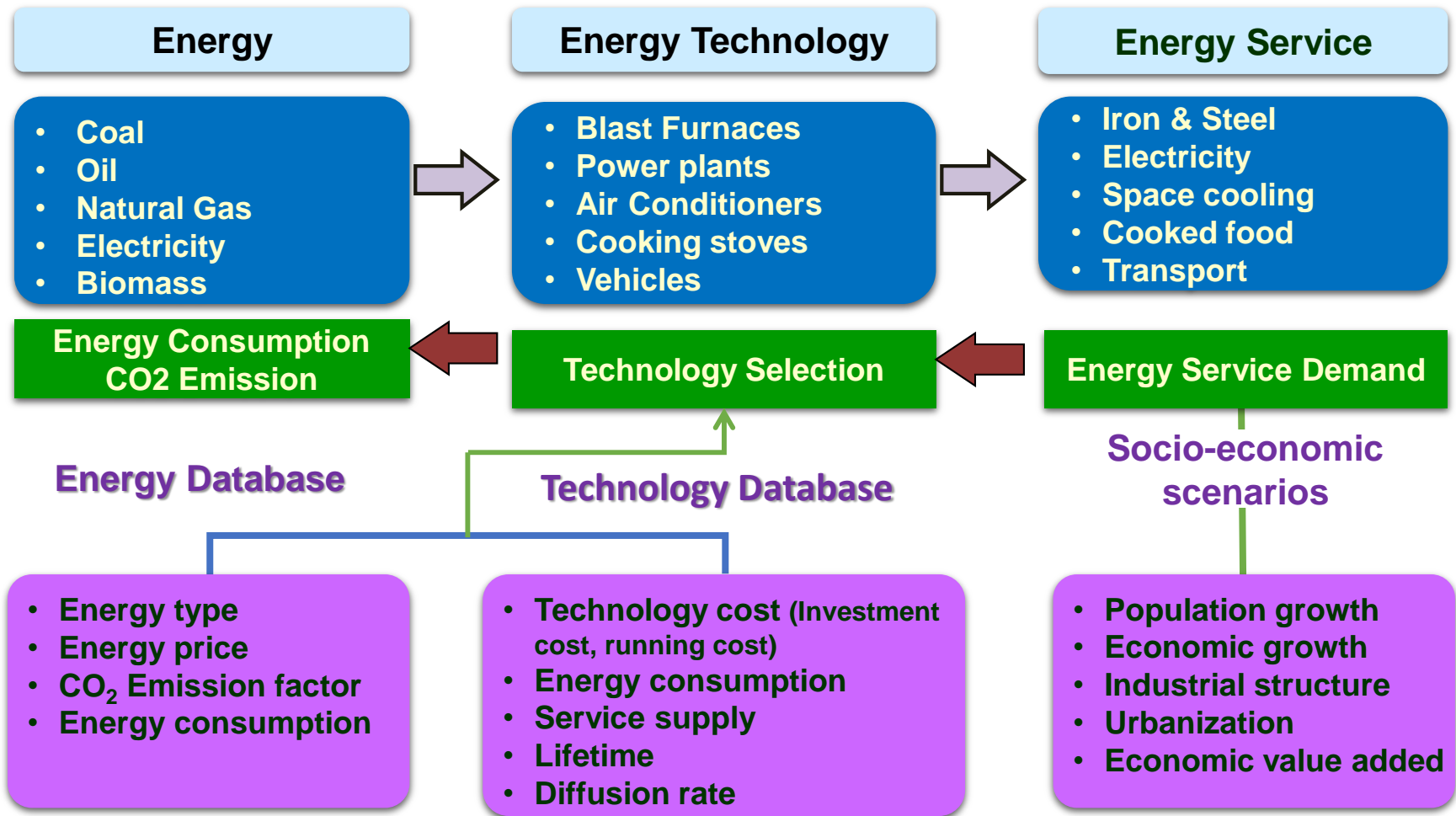
International market mechanism:

Thailand recognizes the important role of market-based mechanisms to enhance the cost effectiveness of mitigation actions, and therefore will continue to explore the potentials of bilateral, regional and international market mechanisms as well as various approaches that can facilitate, expedite and enhance technology development and transfer, capacity building and access to financial resources that support Thailand's efforts towards achieving sustainable, low-carbon and climate-resilient growth, as appropriate.

Thailand's INDC: Mitigation contribution

Plans to Meet Mitigation in NDCs

- Power Development Plan, 2015-2036
- Thailand Smart Grid Development Master Plan, 2015-2036
- Energy Efficiency Plan, 2015-2036
- Alternative Energy Development Plan, 2015-2036
- Thailand's Transport Infrastructure Development
- National Industrial Development Master Plan, 2012-2031
- Waste Management Roadmap



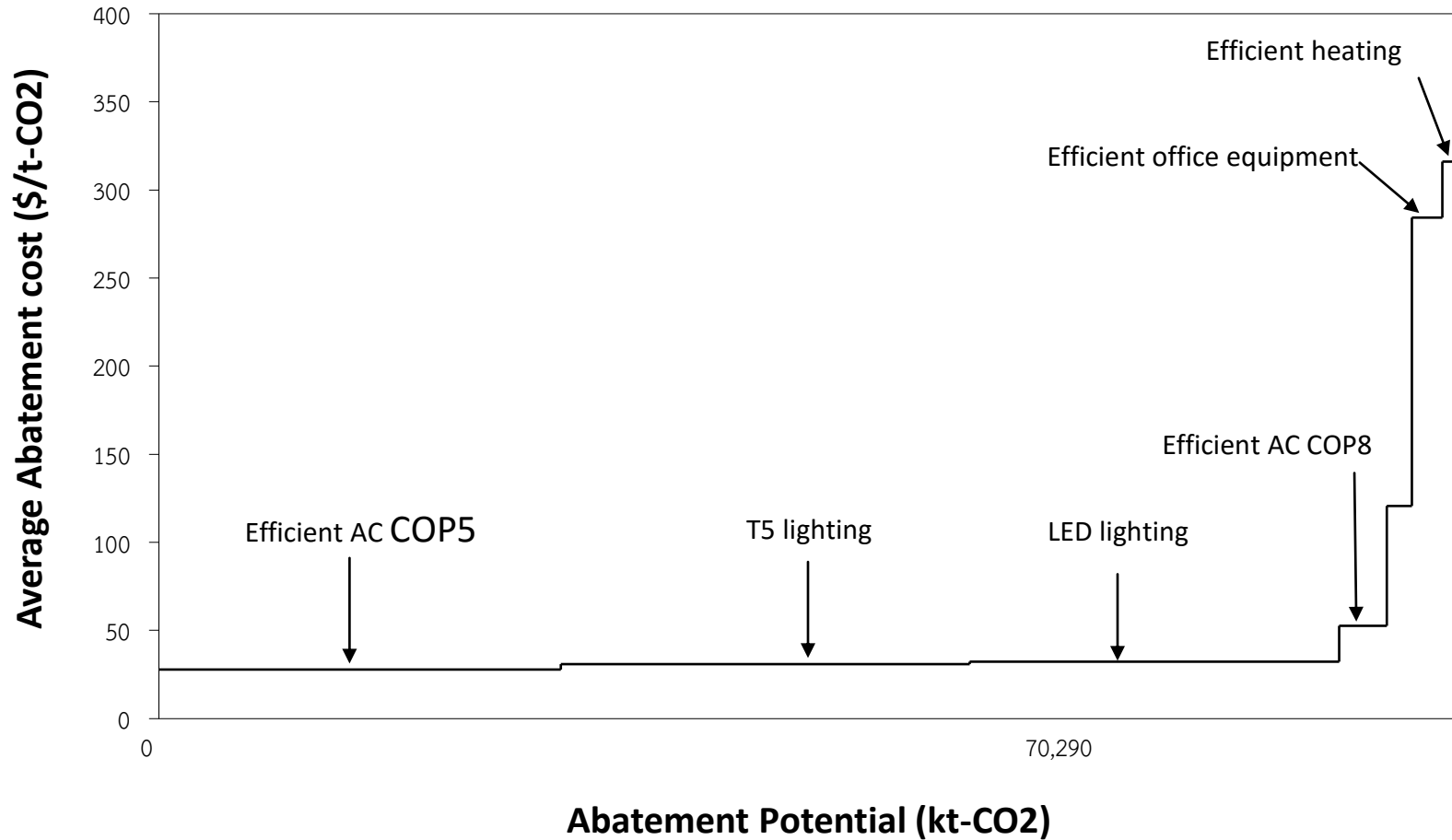
Development of Thailand's INDC

NDC Screening Criteria

- **Consistent with National Policies among Ministries**
- **Technical feasibility of implementation such as CCS**
- **Feasibility & acceptable MRV**
- **Social acceptance such as Nuclear Power**
- **Return on investment: PBP and IRR**
- **Abatement costs**

Development of Thailand's INDC

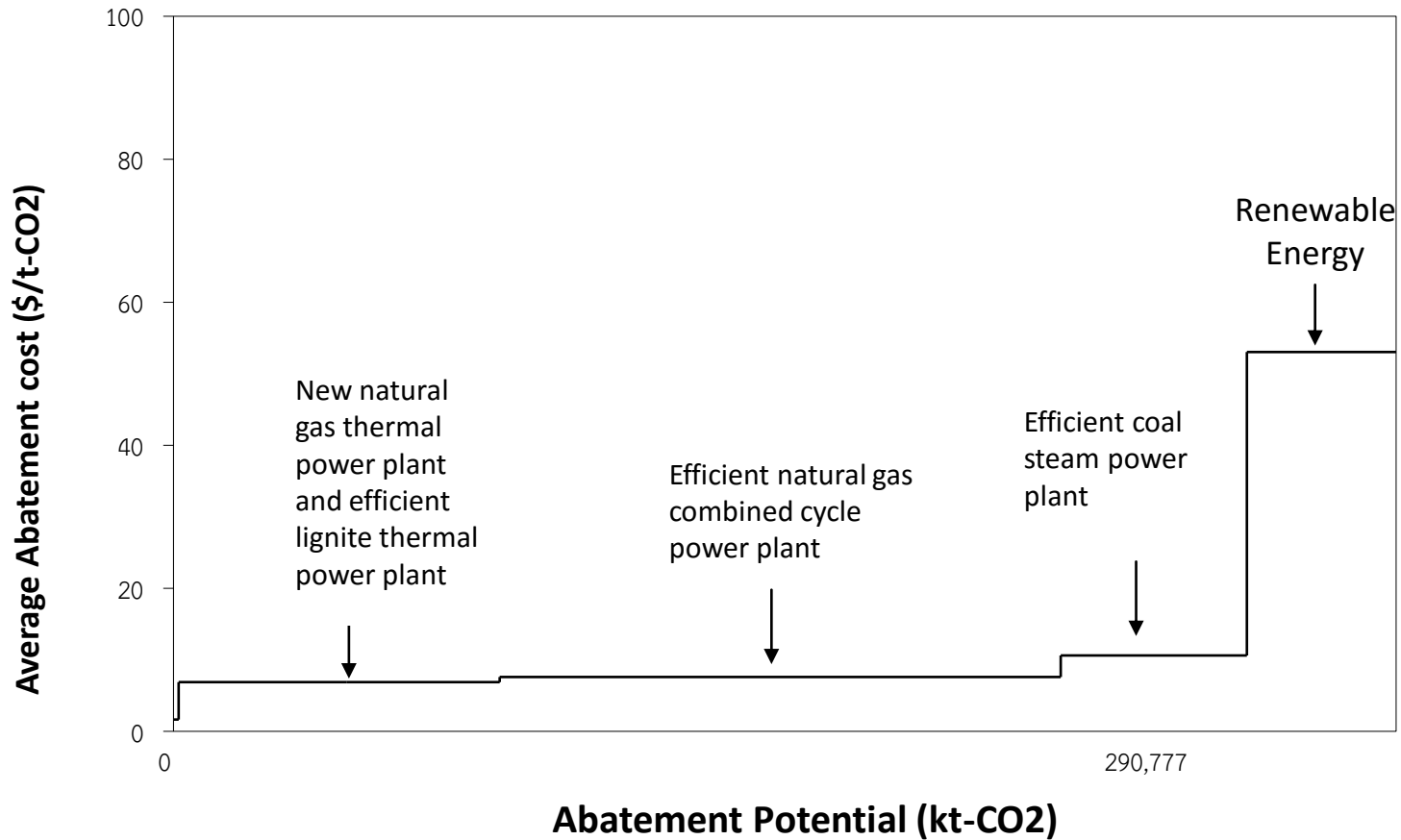
Selected MACs in building sector



Source: (SIIT-TU, 2015)

Development of Thailand's INDC

Selected MACs in Industries



Source: (SIIT-TU, 2015)

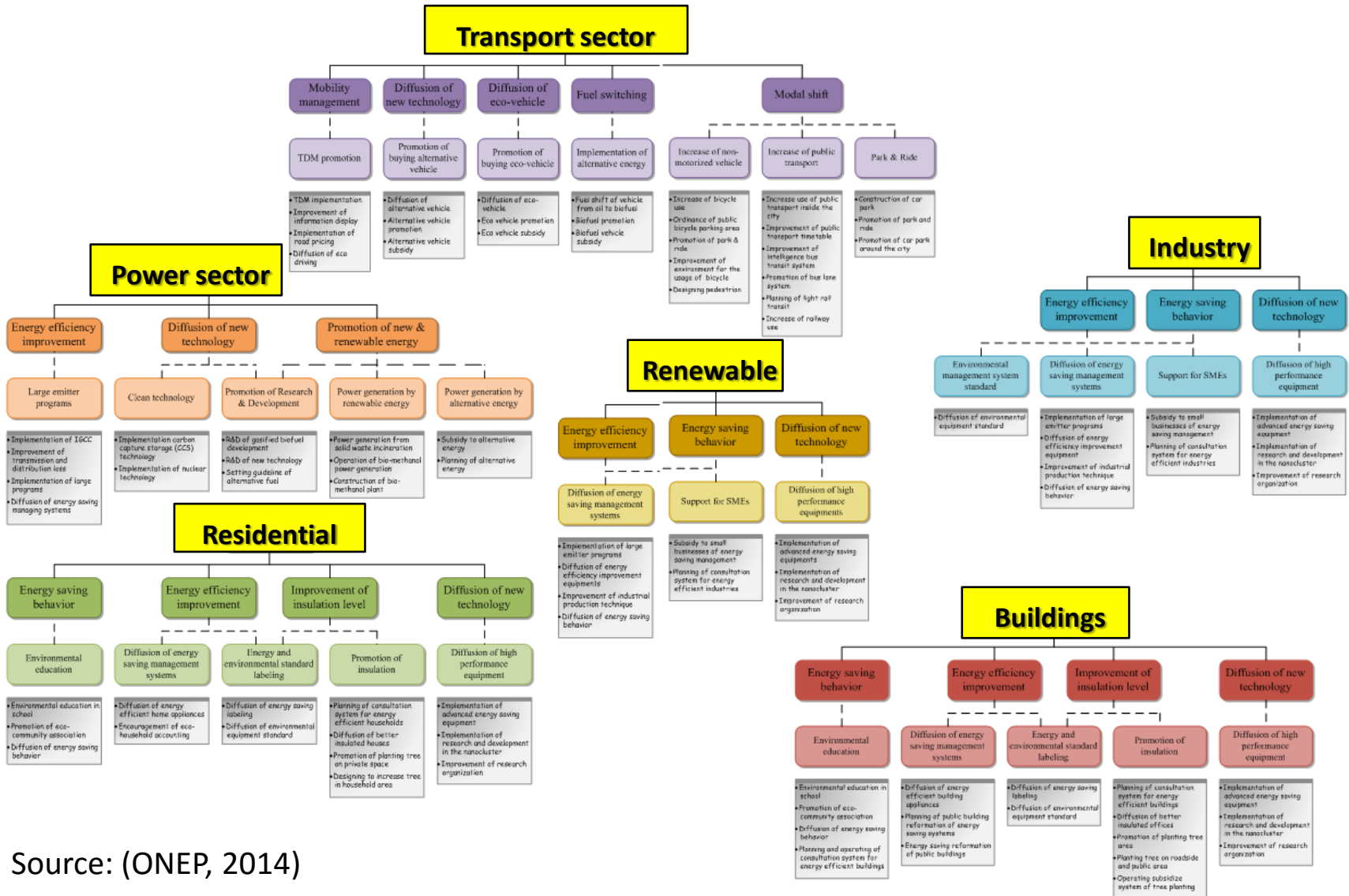
How to Achieve Thailand's INDC

- Transport sector contributes to 20-25% of national CO₂ emissions.
- Effective on January 1, 2016 Thailand have launched a new carbon tax scheme in the transport sector.
- Passenger vehicles releasing more than 200 grams of CO₂ per kilometre will be taxed at a rate of up to 40 per cent of a vehicle's price compared to those classified as eco-friendly models, resulting in shifting towards cleaner engines.
- In addition, the 2016 action plans for Thailand's Transport Infrastructure Development have been approved by the cabinet, which include integrated nation-wide transport system.
- These actions will lead to not only shifting toward efficient transport systems, but also reducing fossil dependency

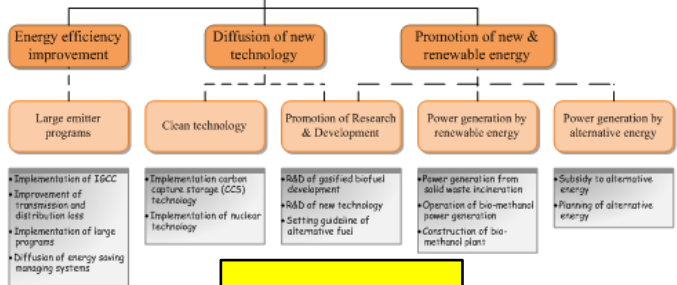
How to Achieve Thailand's INDC

- The action plans in EEP2015 aim at energy intensity reduction of 30% by 2036 while AEDP2015 will lead to substitution of fossil fuels in final energy consumption of 30% by 2036.
- Moreover, the actions on renewable electricity generation in PDP2015 are complied with AEDP2015.
- Renewable electricity in PDP2015 will share about 20% in the nation-wide installed capacity in 2036.
- In addition, the actions on Thailand's Green Industry have been promoted by Ministry of Industry in 2015.

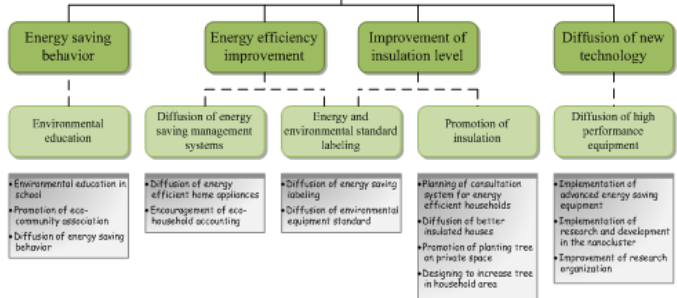
Roadmap to Thailand NAMAs 2020: Lesson Learnt for Success of NDCs



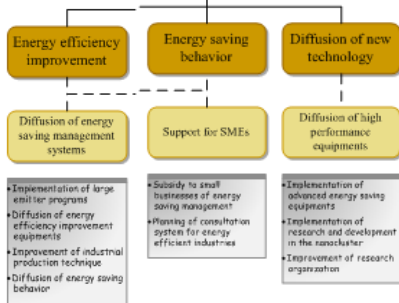
Power sector



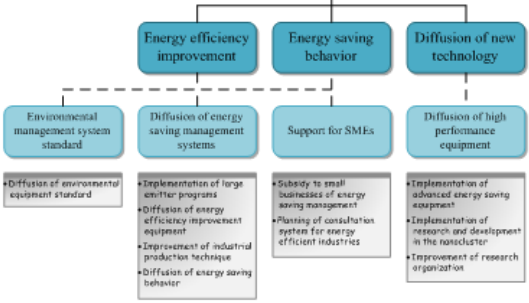
Residential



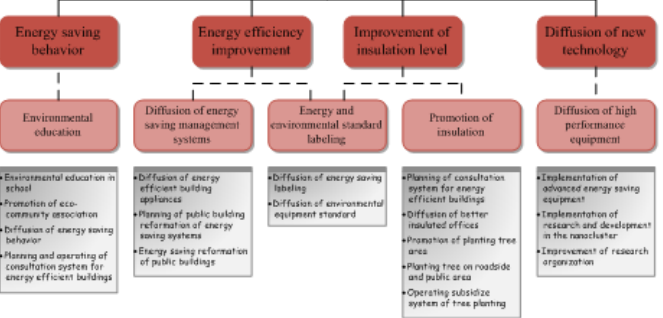
Renewable



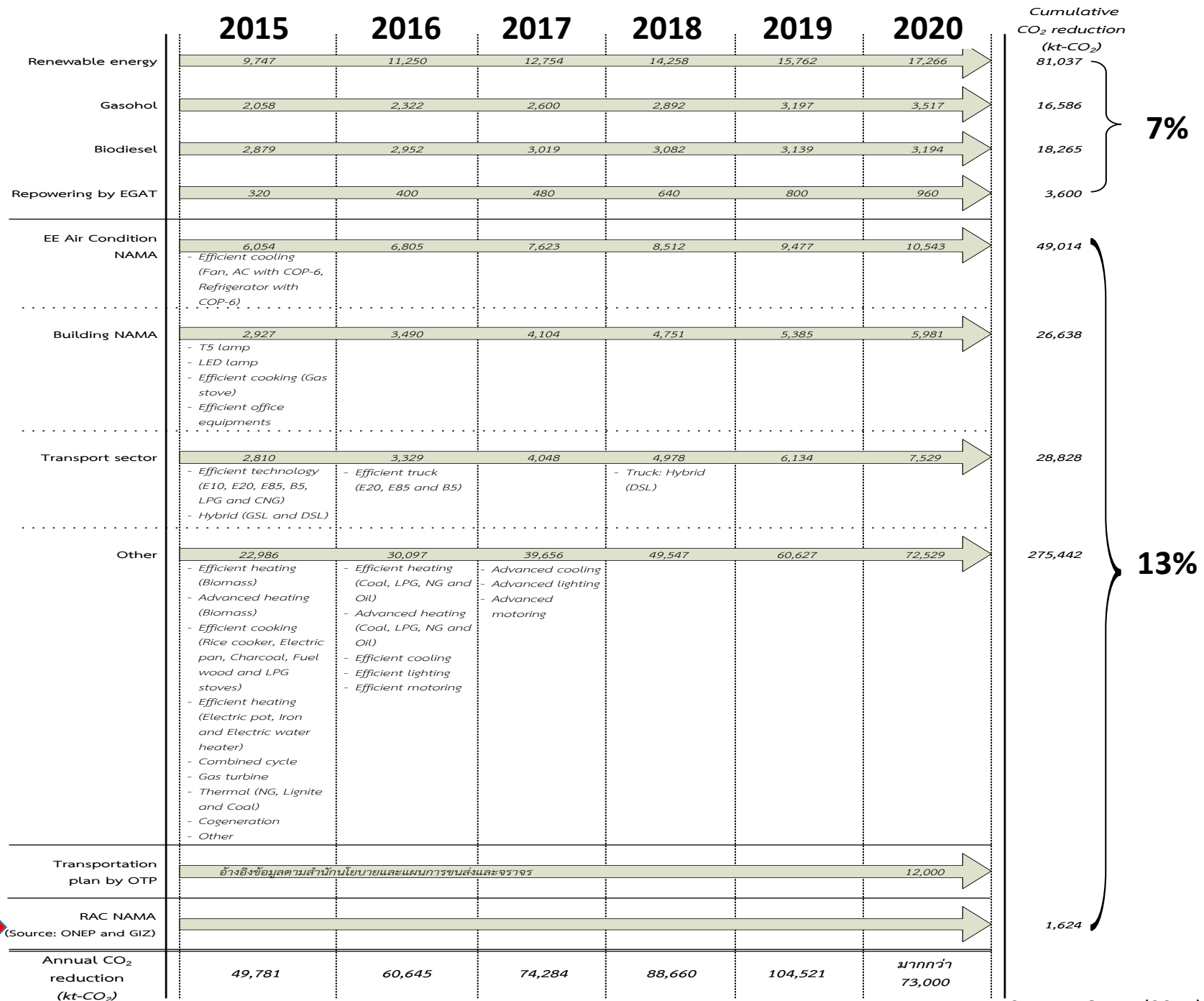
Industry



Buildings



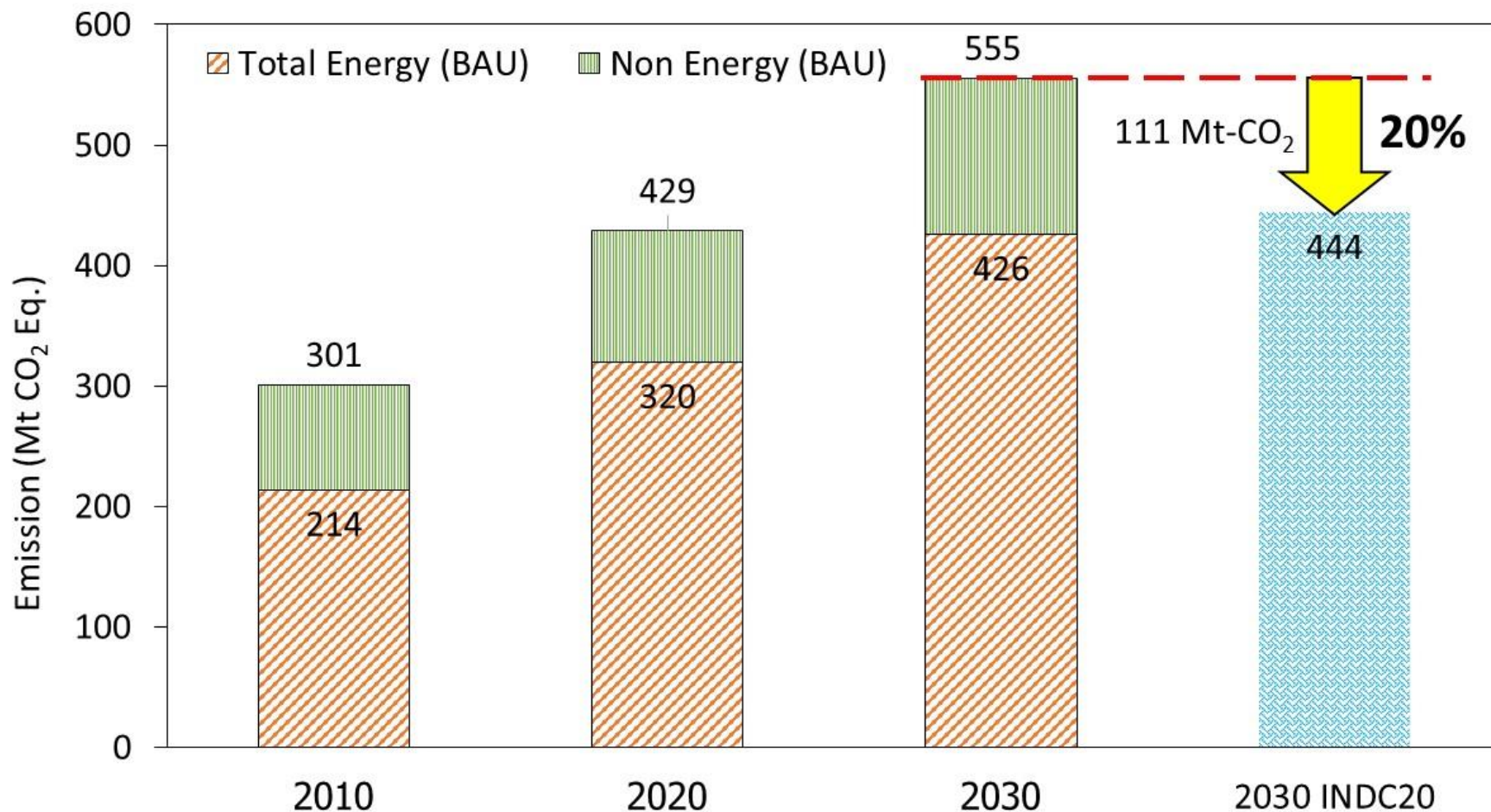
Source: (ONEP, 2014)



Source: ONEP (2014)

Thailand's Economy-wide GHG Emissions

Thailand's INDC: Ambitious Target of 20 in 2030



Source: (ONEP, 2015)

Thailand's INDC: Recognition



GEFÖRDERT VOM



Bundesministerium
für Bildung
und Forschung

giz Deutsche Gesellschaft
für Internationale
Zusammenarbeit (GIZ) GmbH

AIM
ASIA-PACIFIC INTEGRATED MODEL


NIES JAPAN