



# **SITE EVALUATION IN THAILAND**

Regional Workshop on Site Evaluation for SMRs

Haikou, China

6-10 November 2023





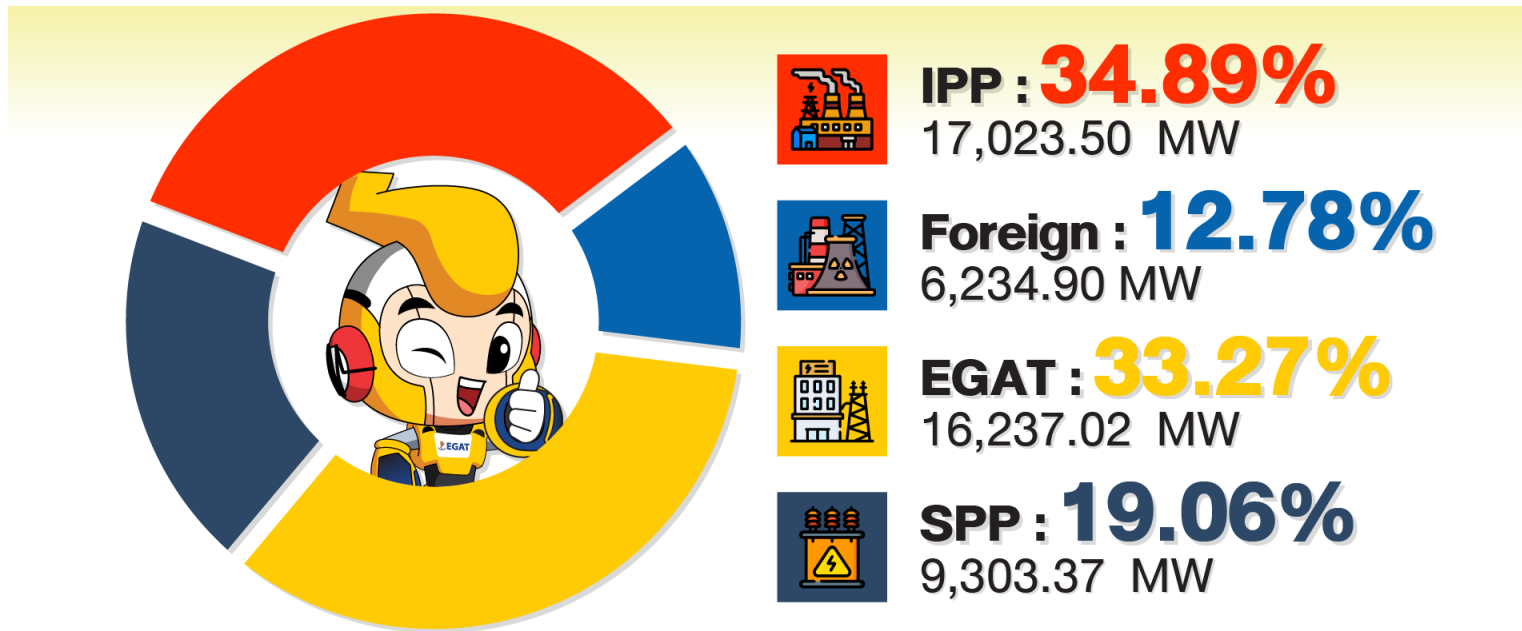
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# Overview of Power Situation in Thailand



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## System Installed Generating Capacity

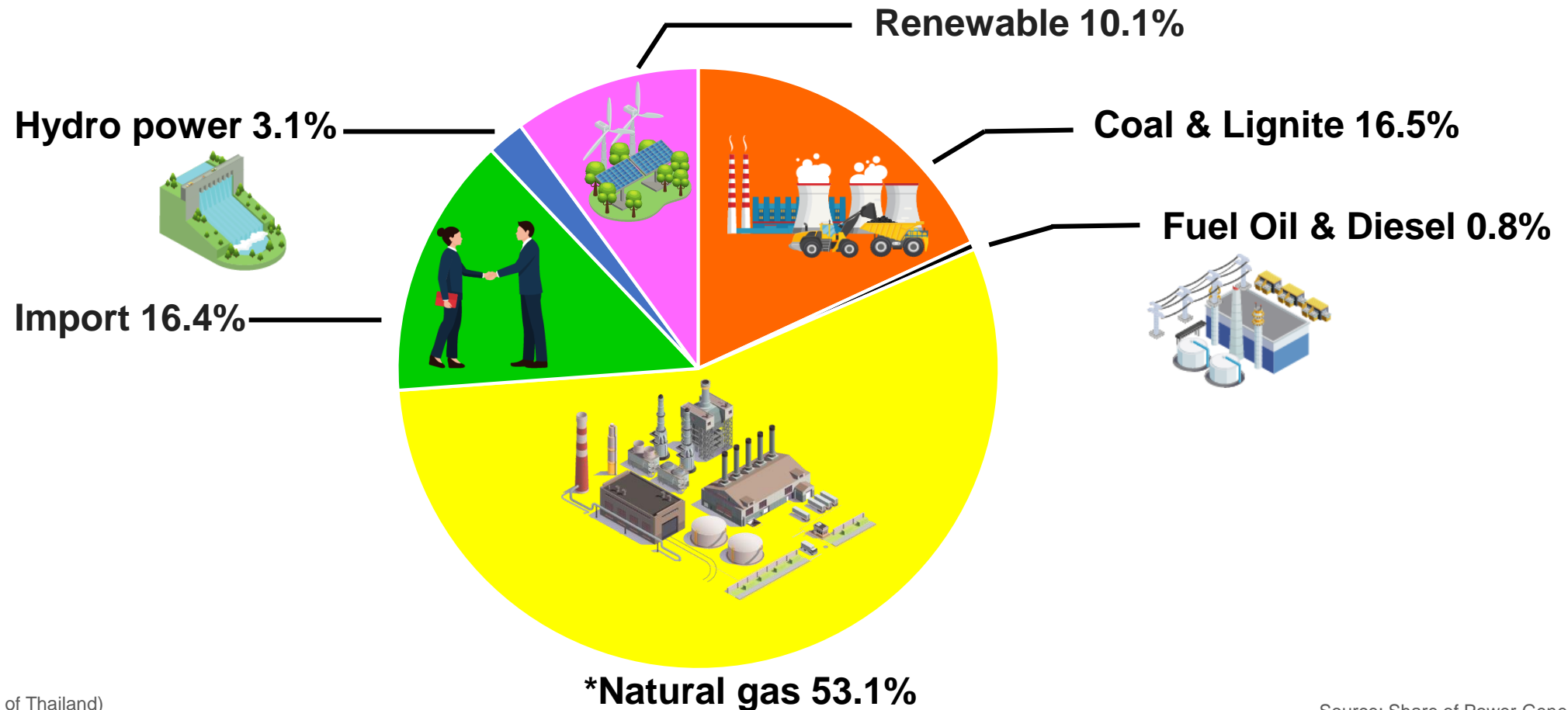


**Total installed generating capacity is  
48,798.79 MW (September 2023)**

**Note** IPP : Independent Power Producers (total installed capacity > 90 MW)  
SPP : Small Power Producers (total installed capacity 10-90 MW)  
EGAT : Electricity Generating Authority of Thailand

# Overview of Power Situation in Thailand

## Share of Electric Power Generation by Fuel Type in 2022

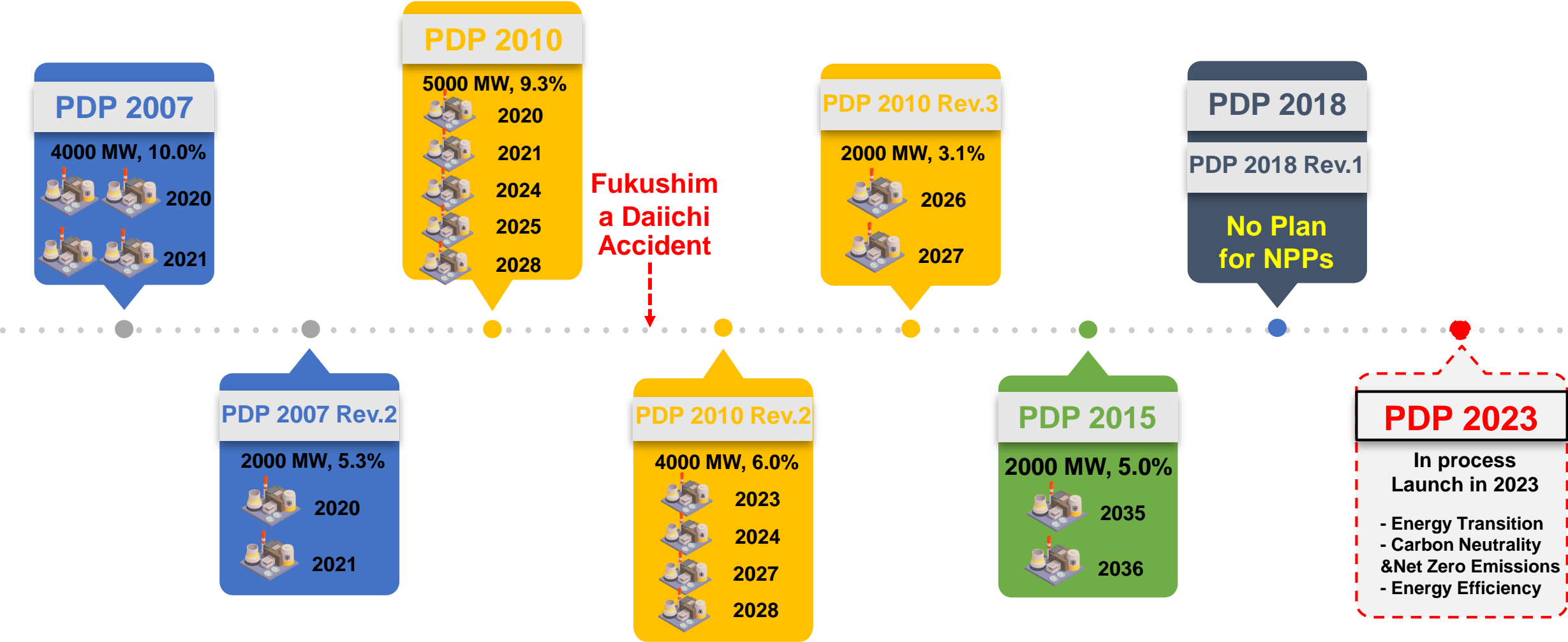


\* Domestic sources (Gulf of Thailand)  
• Imported (Myanmar) + LNG

Source: Share of Power Generation by Fuel Type  
<https://www.eppo.go.th/index.php/en/en-energystatistics/electricity-statistic>

# Overview of Power Situation in Thailand

Nuclear power was first incorporated into the national energy plan (PDP) in 2007





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# Activities for siting



# Activities for Site Selection

**Electricity Generating Authority of Thailand (EGAT)** is responsible as the owner and operator of the first nuclear power station.

- Project planning, Site selection, Feasibility study, Project implementation, Construction and Operation



# Activities for Site Selection

## 2008-2010 Pre-project Activities Phase

- NPP Pre-Feasibility study and site investigation has been conducting by EGAT and a consultant.
  - ✓ Energy Economics and Financing
  - ✓ Reactor Technology
  - ✓ Human Resources Development and Management Aspects
  - ✓ **Site and Environmental Study**
    - IAEA Guidelines , US. NRC regulations
    - Safety and Engineering Aspects, Environmental Aspects, Cost Estimate
    - 2 Steps >>> Identification of candidate sites and Evaluation of candidate sites



# Activities for Site Selection

## 2018 Revising site selection

➤ We are revising the site selection by updated guideline and apply on GIS modeling

### ✓ Site Study

- IAEA Guidelines, US. NRC regulations, Thai law
- Engineering Aspects, Environmental Aspects
- 3 Phases >>>
  - Identification of candidate area
  - Identification of potential site
  - Identification of candidate site



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# **SMR Opportunities in Thailand**



# SMR Opportunities in Thailand



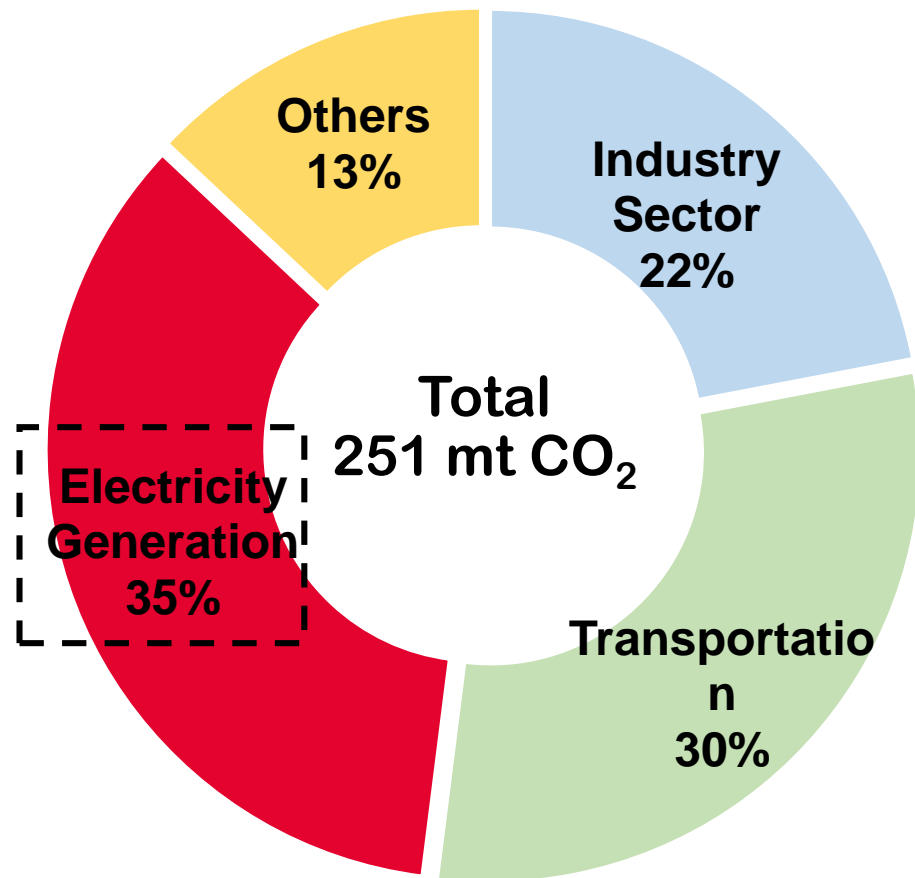
**Prime Minister, General Prayut Chan-o-cha announced the plan on solving climate change problems by setting the goal that**

**Thailand would achieve its **Carbon Neutrality by 2050** and **Net- Zero Greenhouse Gas Emissions by 2065****

\*COP : Conference of the Parties to the United Nations Climate Change Conference

# SMR Opportunities in Thailand

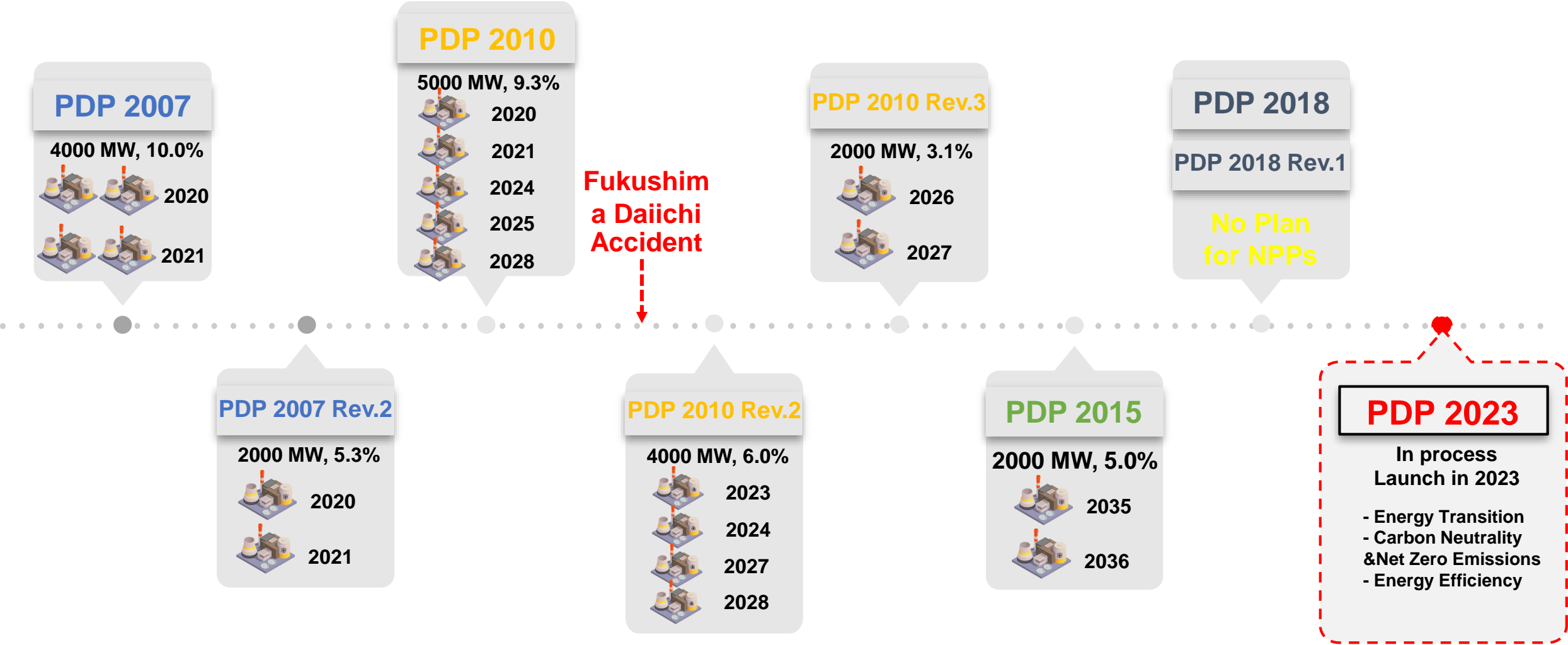
## Thailand's CO<sub>2</sub> Emission by Sector



Total carbon dioxide emissions for Thailand in 2019 was **251** million ton carbon dioxide.

**Electric power** generates the largest share of greenhouse gas emissions due to burning of fossil fuels.

# SMR Opportunities in Thailand



# SMR Opportunities in Thailand

## Public Understanding Activities







**Thank  
you**