

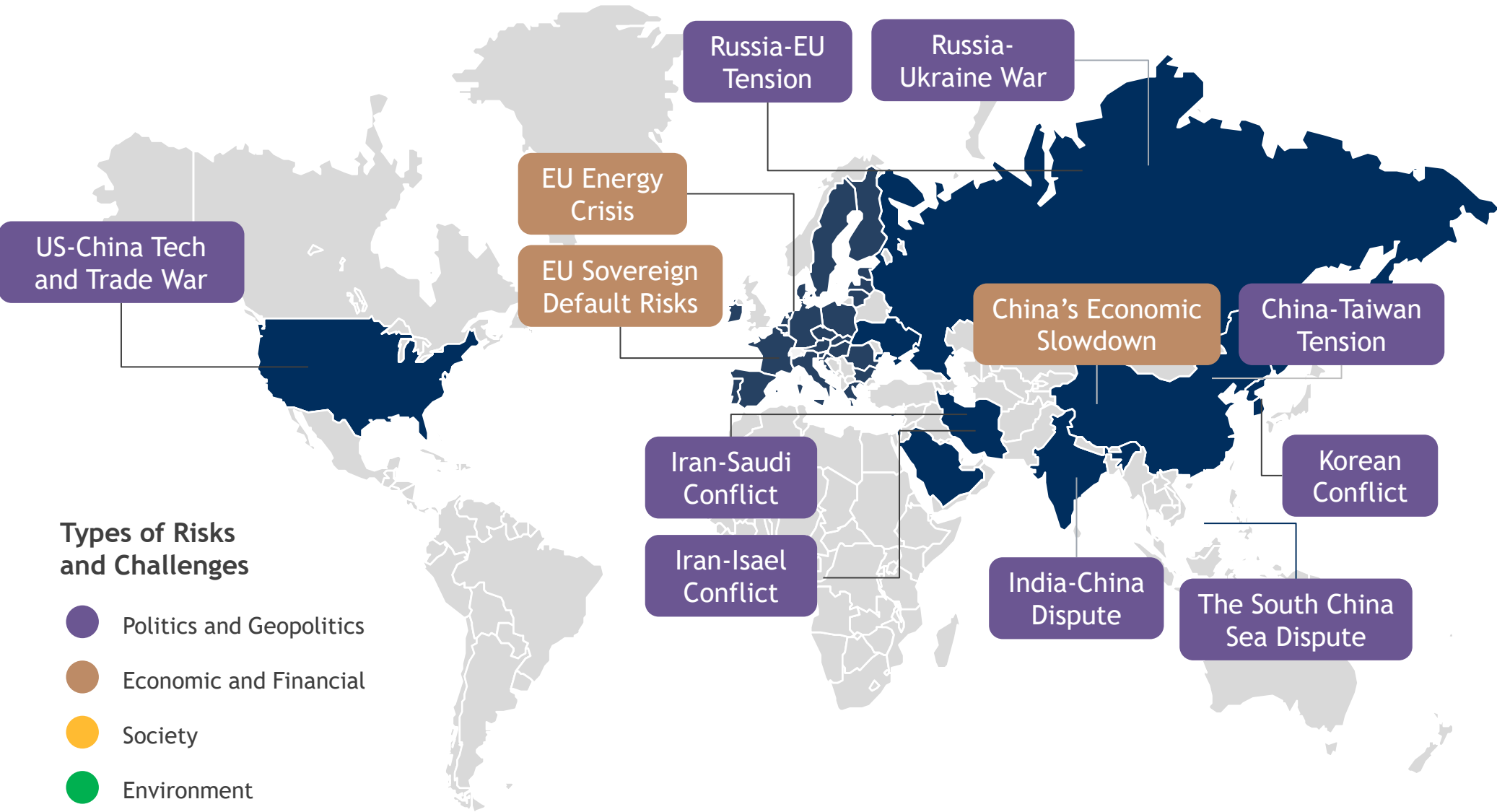
# Go Green 2024: The Ambition of Thailand

Mr. Suthiket Thatpitak-Kul  
Deputy Secretary General  
Office of the Board of Investment  
29 May 2024





# Environment is among the top risks that the world is confronting over next 2 years

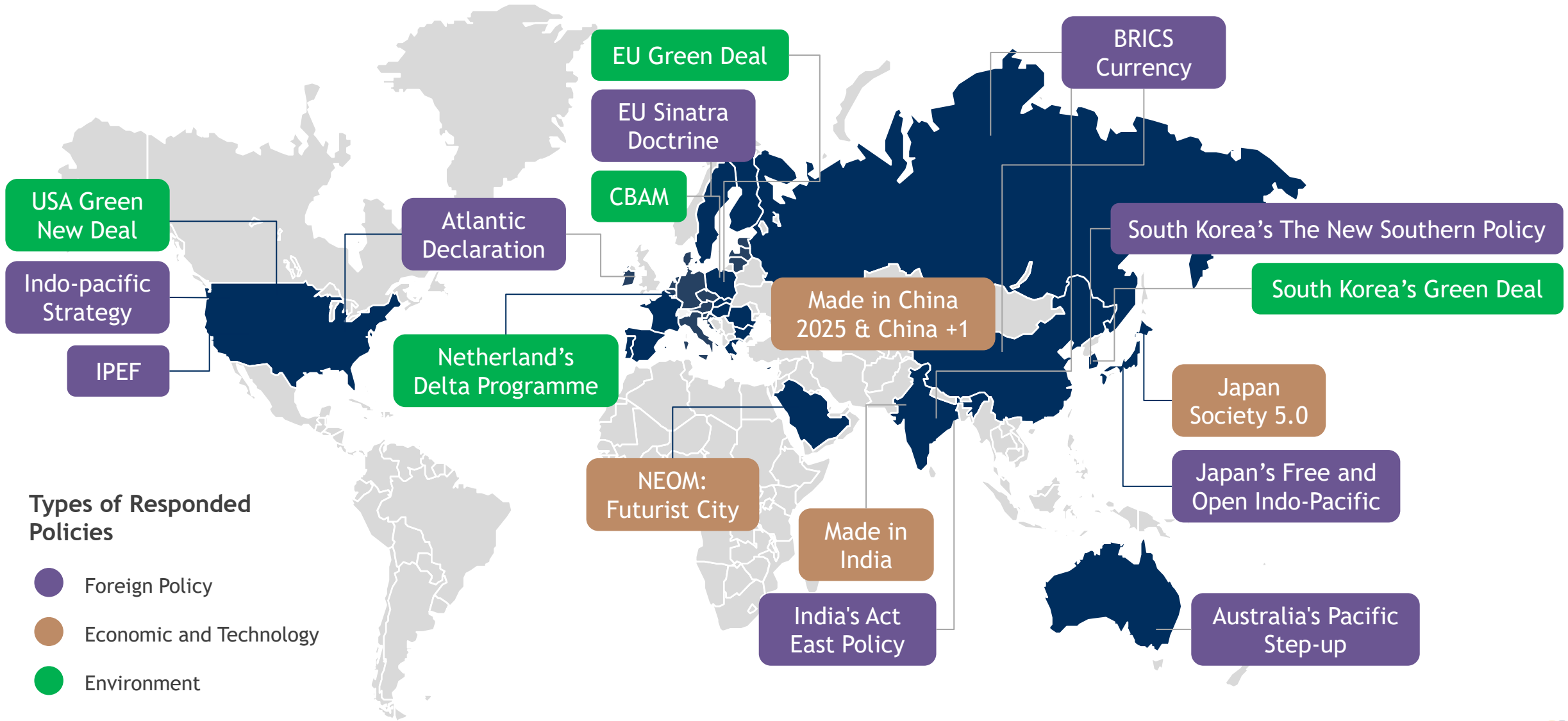


## Other Global Risks over Next 2 Years

- Cost of Living Crisis (Society)
- Natural Disasters (Environment)
- Geoeconomic Confrontation (Politics and Geopolitics)
- Failure to Mitigate Climate Change (Environment)
- Erosion of Social Cohesion (Society)
- Natural Resource Crises (Environment)
- Large-scale Migration (Society)



# To ensure and enhance their competitiveness amid global challenges, countries have responded with robust and proactive policies



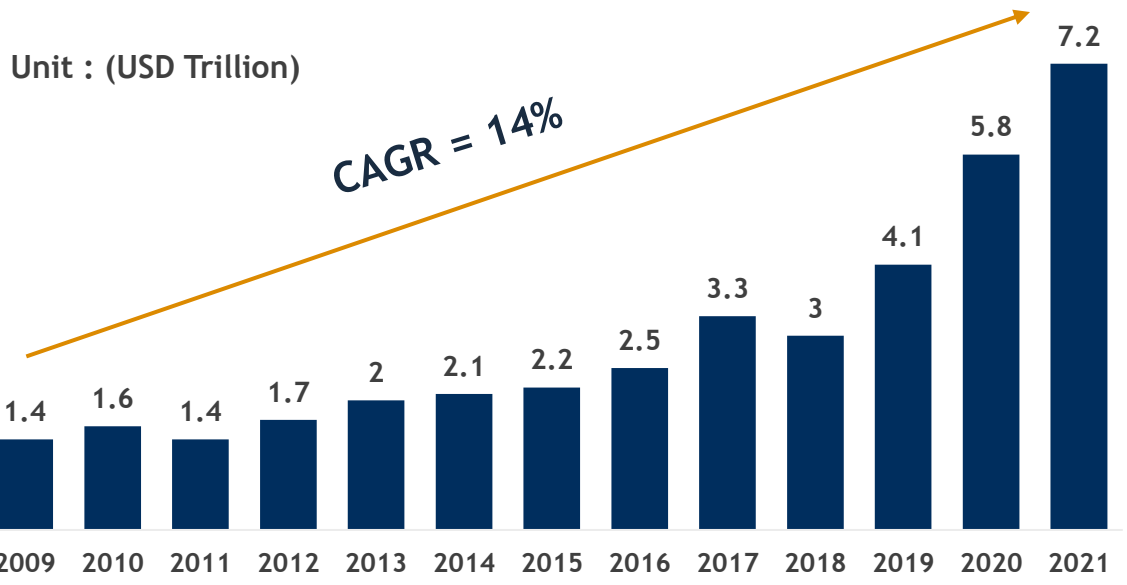
## Types of Responded Policies

- Foreign Policy
- Economic and Technology
- Environment



# Tremendous growth in market capitalization reflects the attention of global investment toward green economy

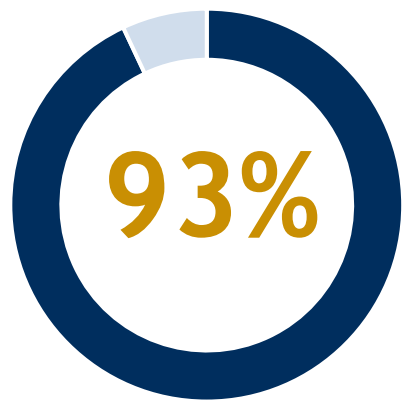
The size of the green economy by market capitalization, 2009-2021



The green economy’s market capitalization grew from USD 1.4 trillion in 2009 to over USD 7 trillion in 2021 which almost doubling its share of the global investment market from 4% to 7% in 2009 and 2021 respectively

Investment in the green economy needs to grow faster to meet global climate changes and environmental goals

According to a research from Bain & Company



of the company would walk away from an investment opportunity if it posed an ESG concern



cite better investment performance as a key reason to incorporate ESG



# Thailand's Beyond and Better

## Beyond

### Promising Economic Growth

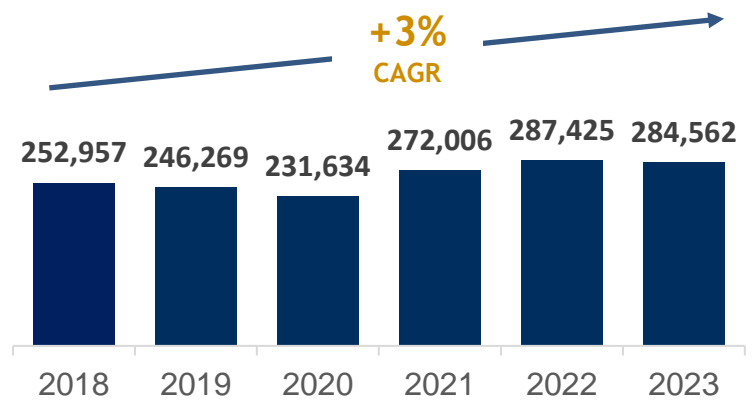


❖ Unemployment Rate      ❖ Private Consumption Growth

0.8% (Sep 2023)

+ 7.1% (YOY 2023)

❖ Export Value  
(Million USD)



## Better with

### A Propelling Sustainable Transition



### Thailand SDG Index



*"...With the guidance of Sufficiency Economy Philosophy (SEP), Thailand's own development approach, and the Bio-Circular-Green Economy Model (BCG), Thailand has submitted our national commitments toward SDGs attainment."*

Mr. Srettha Thavisin, Prime Minister  
19 September 2023, UN Headquarters

Note: \* Forecast

Source: Royal Thai Government, National Economics and Social Development Council, National Statistical Office



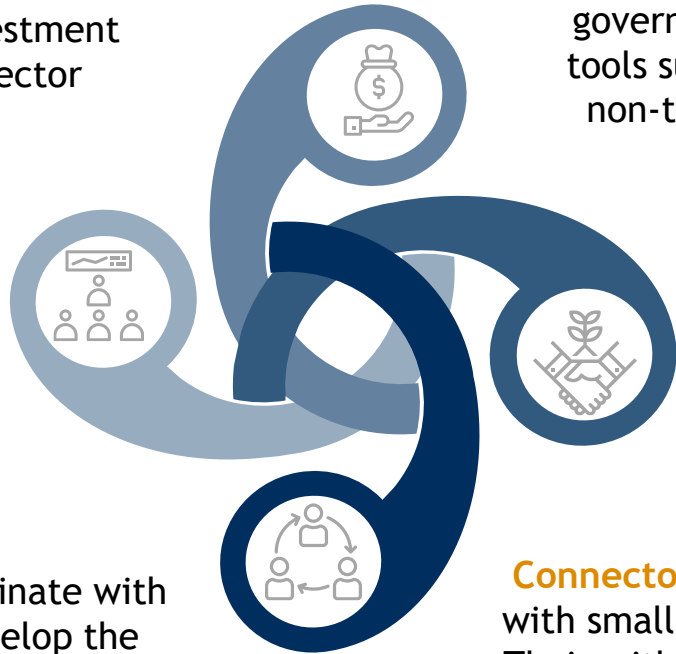
# BOI's Role in Driving the Investment to the New Economy



BOI is a government agency under the Office of the Prime Minister.

**Promotor** drives and promotes investment in private sector

**Integrator** integrates government support tools such as tax and non-tax incentives



**Facilitator** coordinate with agencies to develop the ecosystem and facilitate ease of investment

**Connector** links large-scale with small-scale enterprises, Thais with foreigners, across industries and locations

## Tax Incentives

Exemption / Reduction of

- Corporate Income Tax up to 13 years
- Import Duties on Machinery/ raw or essential materials/ materials imported for R&D purposes
- Cost of Transportation, Electricity and Water
- Installation / Construction of Facilities

## Non-tax Incentives

Permit to

- Permit for foreign nationals to enter the Kingdom for the purpose of studying investment opportunities.
- Permit to bring into the Kingdom skilled workers and experts to work in investment promoted activities
- Permit to own land
- Permit to take out or remit money abroad in foreign currency

# The Role of BOI in Promoting "Go Green" Investments



## Energy Sector



- Collaborate to advocate for mechanisms to procure clean energy, such as Utility Green Tariff (UGT)
- Promote the production of clean energy

## Industrial Sector



- Encourage the development of BCG industries
- Implement measures to transition industries towards Smart & Sustainable Industry practices

## Transportation Sector



- Encourage widespread adoption of Electric Vehicles (EV)

## Community Sector



- Implement the investment promotion measures aimed at developing communities and societies

## Utility Green Tariff scheme

## Additional green energy sources

**NEW**  
Additionality

Green energy produced from additional green energy sources of 17,977 MW planned and allocated to provide the corporate buyers bundled with the corresponding RECs.

Traceability

### Utility Green Tariff Rate components

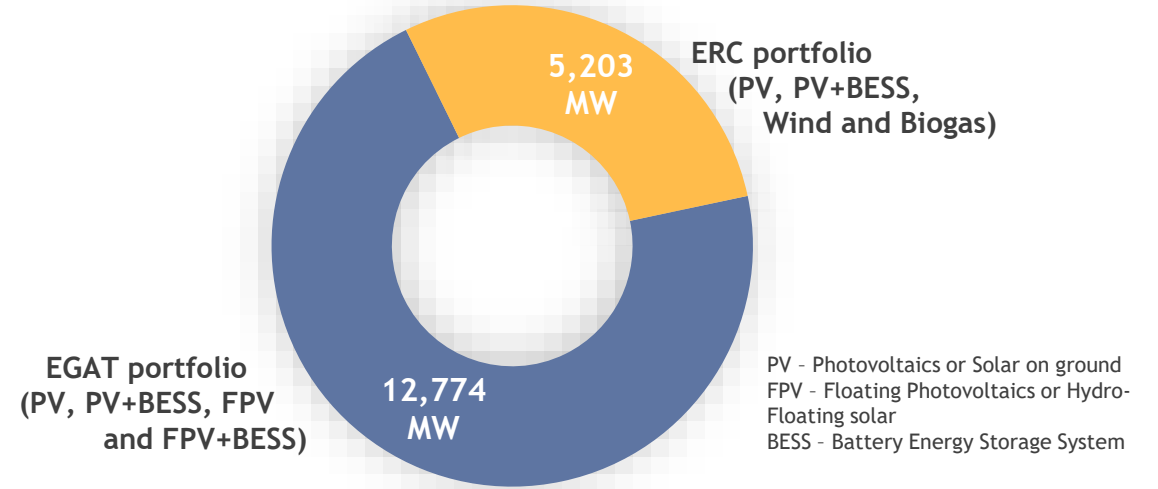
1. Energy cost (fixed)
2. T & D & Ancillary service & other costs (Review every 1-5 years)
3. Energy management (Energy shifting) cost (variable based on an index)

Specificity

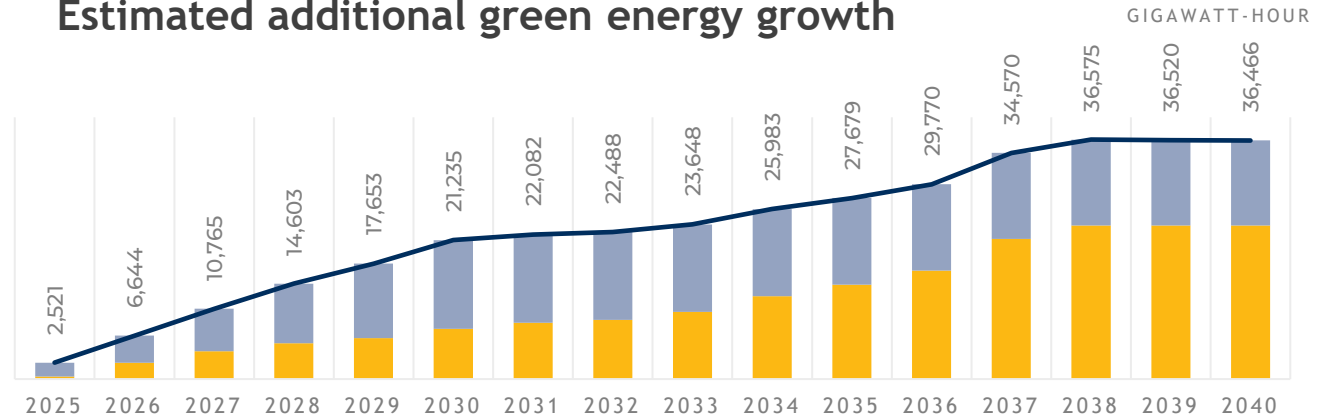
### 3 Areas

1. General Zone (Any area)
2. EGAT Green Zone : areas adjacent to EGAT generation facilities such as Mae Moh area at Lampang province etc.
3. Special Economic Zone : where nearby EGAT green energy sources such as Kanchanaburi province etc.

Ready for  
2025 Target

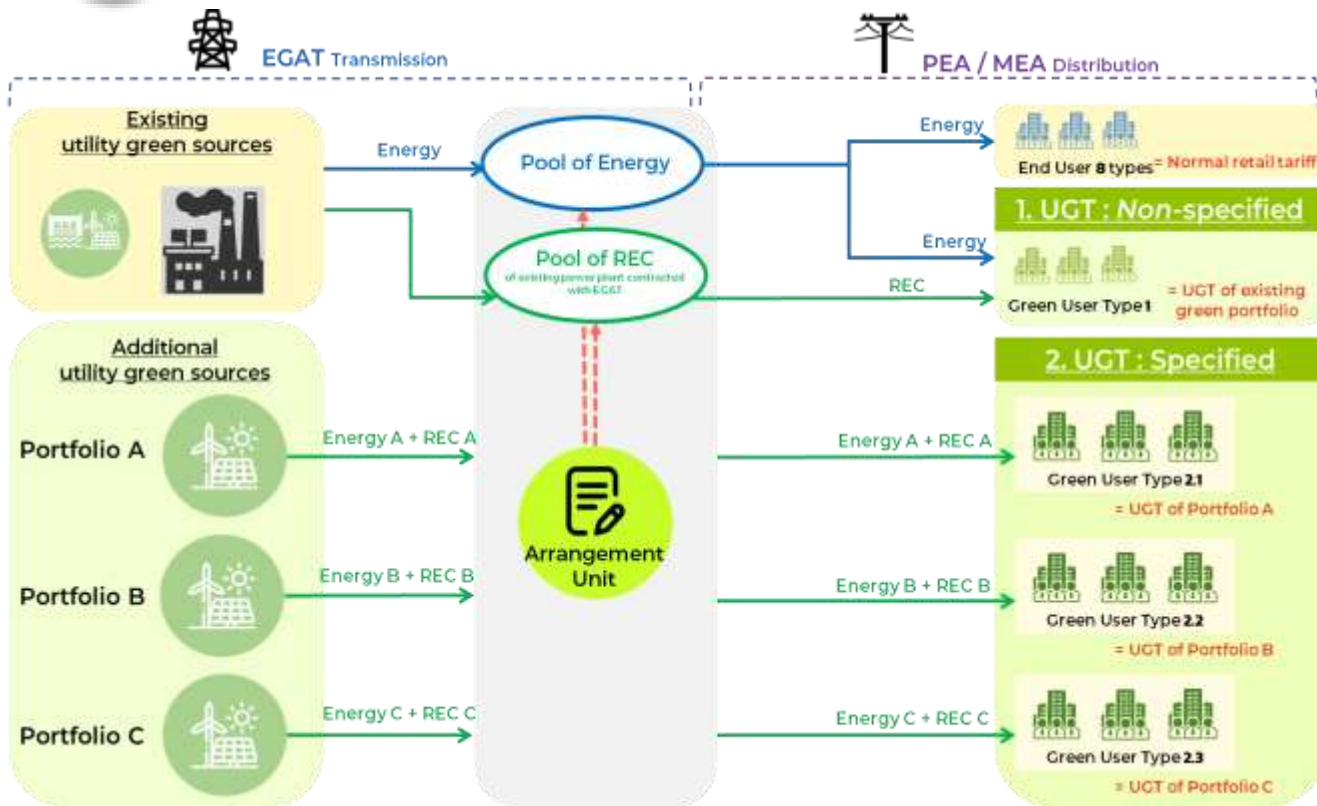


## Estimated additional green energy growth





# Utility Green Tariff Mechanism



**Corporate Buyers** entering into power purchase contracts with electricity distributors (MEA and PEA) to get services related to green energy and making payments for these services at a utility green tariff rate which could be divided into two types of UGT:

**Utility Green Tariff Type 1 (UGT1) - Non specified green energy sources:** The corporate buyers will get green energy produced from the existing green energy generation facilities with RECs **unspecified sources** of green energy. UGT rate = Normal Tariff + Premium (0.0594) per unit.

**Utility Green Tariff Type 2 (UGT2) - Specified green energy sources:** The corporate buyers will get green energy produced from new additional portfolio of utility green energy sources planned and allocated to provide the corporate buyers bundled with RECs specified from the consumed sources of green energy. Currently, UGT2 can be divided into 2 types: Portfolio A and Portfolio B. UGT rate of portfolio A is 4.5622 baht per unit and portfolio B is 4.5475 baht per unit.

The utility green tariff rate and detailed terms and condition will be determined by

**ERC**

Energy Regulatory Commission of Thailand



## Timeline of Next Step

- 2024 Public hearing on (Draft) Utility Green Tariff (UGT) Proposal
- 2024 Utility green tariff program effective (**UGT1**)
- 2025-2027 **Portfolio A** is expected to begin commercial (**UGT2**)
- 2028-2030 **Portfolio B** is expected to begin commercial (**UGT2**)



# BOI's Investment Incentive: Renewable Energy

## Group A1

- Production of electricity or electricity and steam from **garbage or refuse derived fuel**
- Energy Service Company (ESCO)

### CIT Exemption

**8 Years (no cap)**

### Other Exemption

Exemption of import duties on machinery

Exemption of import duties on raw materials used in production for export\*\*

Exemption of import duties on raw materials used in R&D

### Non-tax Incentive

- Permit to own land
- Permit to bring into the kingdom skilled workers and experts to work in investment promoted activities
- Permit for foreign nationals to enter the kingdom for the purpose of studying investment opportunities
- Permit to take out or remit money abroad in foreign currency

## Group A2

- Production of electricity or electricity and steam from **renewable energy such as solar energy, wind energy, biomass or biogas**, etc. except from garbage or refuse derived fuel
- Production of electricity or electricity and steam from **hydrogen**
- Production of tap water, industrial water or steam From **waste**
- **Recycling and reuse** of unwanted materials
- Manufacture of **Refuse Derived Fuel**
- **Waste treatment** or disposal

**8 Years**



# BOI's Investment Incentive: Renewable Energy

## Group A3

- Production of tap water, industrial water or steam
- Sorting/Separation Service of Unwanted Materials, which located in an industrial estate or promoted industrial zone

### CIT Exemption

5 Years

### Other Exemption

Exemption of import duties on machinery

Exemption of import duties on raw materials used in production for export\*\*

Exemption of import duties on raw materials used in R&D

### Non-tax Incentive

- Permit to own land
- Permit to bring into the kingdom skilled workers and experts to work in investment promoted activities
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## Group A4

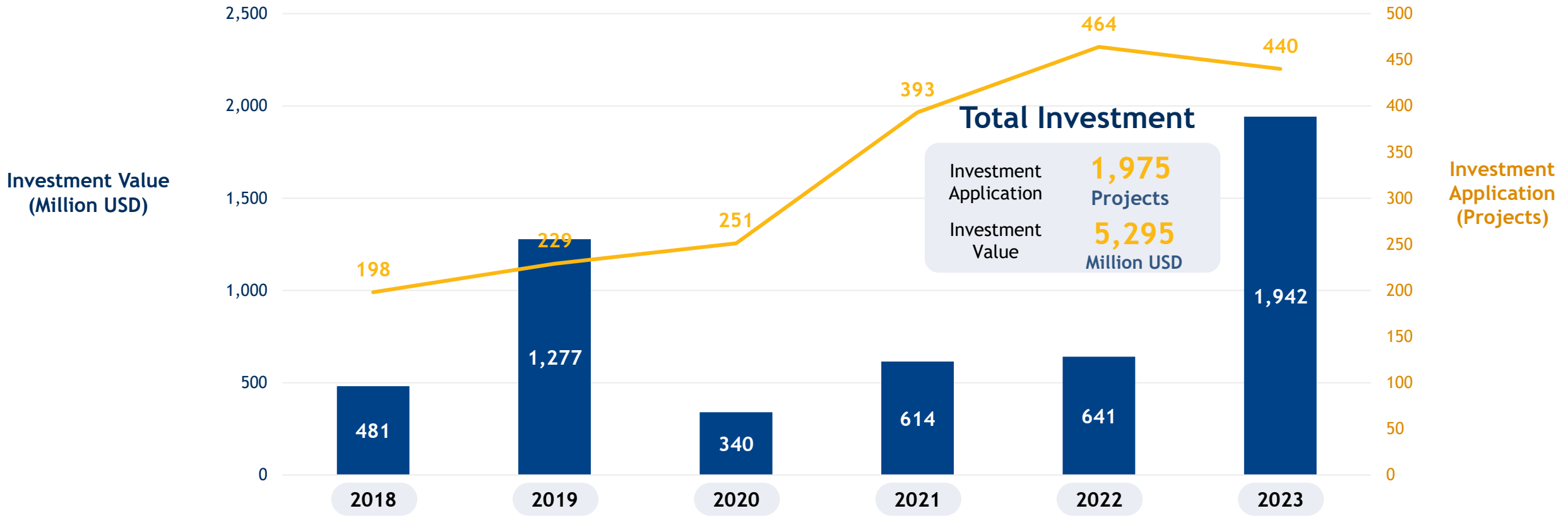
- Production of electricity or electricity and steam from **other energy sources**
- Sorting/Separation Service of Unwanted Materials

3 Years



# Investment Application for Promoting Electricity Production from Renewable Energy between 2018-2023

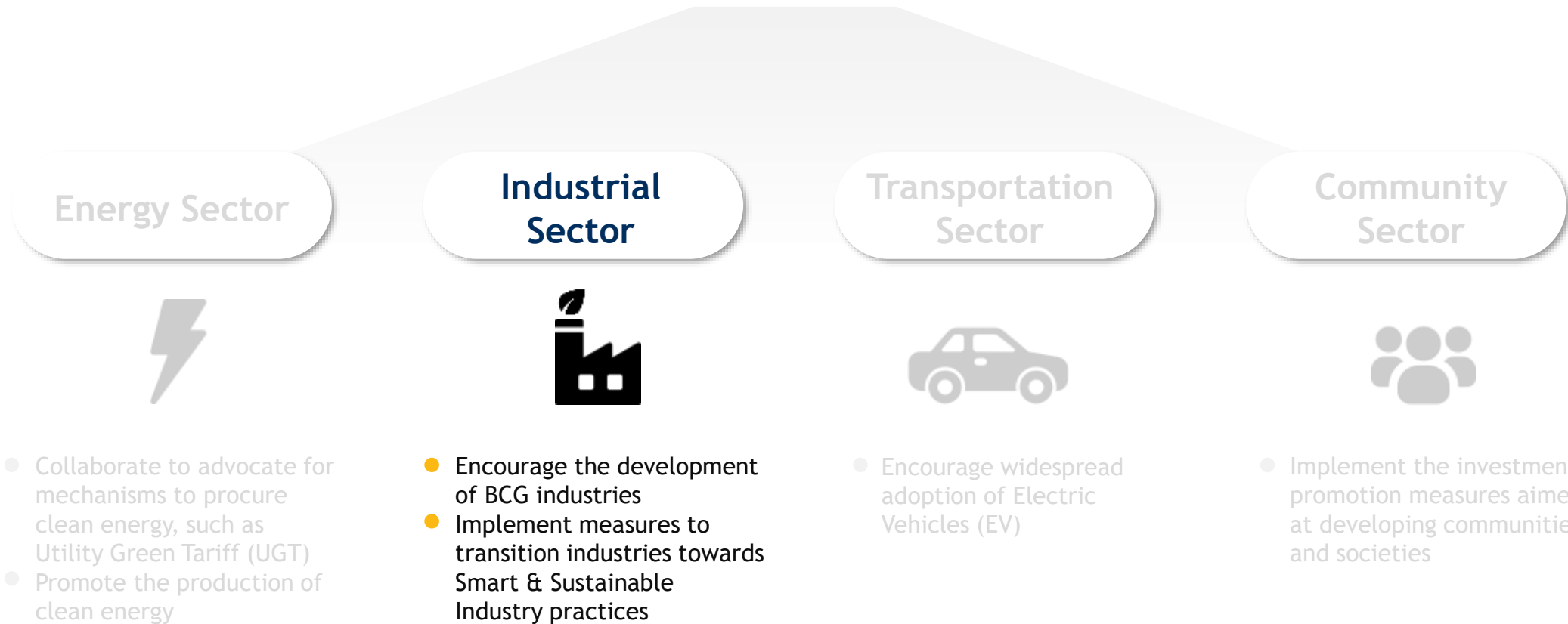
In 2023, there were applications for promotion totaling USD **1,942 Million**. **3 times** higher than 2022



Note: Exchange Rate from Bank of Thailand as of May 20, 2024 (1 USD = 36.4102 THB)

Remarks: In 2019, there was a significant investment in electricity production from oil waste (PITCH) project amounting to 24,000 million baht.

# The Role of BOI in Promoting "Go Green" Investments



# Investment Incentives for BCG activities (1/2)

## Agriculture and Agribusiness



### 8 years CIT Exemption (with no cap) for:

- Economic forest plantation (except for Eucalyptus)

### 5 years CIT Exemption for:

- Plant factory, agricultural goods, and biological goods
- Manufacture of biological fertilizers, organic fertilizers, nano-coated organo chemical fertilizer and bio-pesticides
- Plant or animal breeding (only those that are not eligible for biotechnology activity)

## Preservation and Waste Management



### 5 years CIT Exemption for:

- Manufacture or preservation of food, beverages, food additives or food ingredients using modern technology

### 3 years CIT Exemption for:

- Manufacture of products from agricultural by-products or waste

## Bioenergy



### 8 years CIT Exemption (with no cap) for:

- Manufacturing of electricity or electricity and steam from garbage or refuse derived fuel

### 8 years CIT Exemption for:

- Manufacturing of electricity or electricity and steam from renewable energy including solar energy, wind energy, biomass or biogas, etc. excepting garbage and refuse derived fuel

## Biofuels



### 8 years CIT Exemption for:

- Manufacturing of fuel from agricultural products
- Manufacturing of fuel from agricultural scrap or garbage or waste

### 5 years CIT Exemption for:

- Manufacturing of biomass briquettes and pellets

# Investment Incentives for BCG activities (2/2)

## Eco-friendly Chemicals or Polymers



### 8 years CIT Exemption for:

- Manufacturing of eco-friendly chemicals or polymers or manufacture of products from eco-friendly chemicals or polymers that is incorporated within the same project as the manufacture of eco-friendly chemicals or polymers

### 5 years CIT Exemption for:

- Manufacturing of products from eco-friendly polymers

## Biotechnology Research and Development



### 8 years CIT Exemption (with no cap) for:

- Research and development activity and/or manufacturing, using biotechnology
- Manufacturing of raw materials and/or essential materials for molecular biological research and development, experiments, testing or quality control services and/or production of biological substances
- Biological substance analysis and/or synthesis services and/or quality control services and/or product validation services

## Rubber Products



### 8 years CIT Exemption for:

- Manufacture of natural rubber products

### 3 years CIT Exemption for:

- Manufacture of primary processed rubber

## Medical Industry



### 8 years CIT Exemption for:

- Manufacture of targeted medicines
- Active pharmaceutical ingredients
- Manufacture of targeted medicines

### 5 years CIT Exemption for:

- Manufacture of conventional medicines

## Energy and Public Utilities



### 8 years CIT Exemption (with no cap) for:

- Production of electricity or electricity and steam from garbage or refuse derived fuel
- Energy Service Company (ESCO)

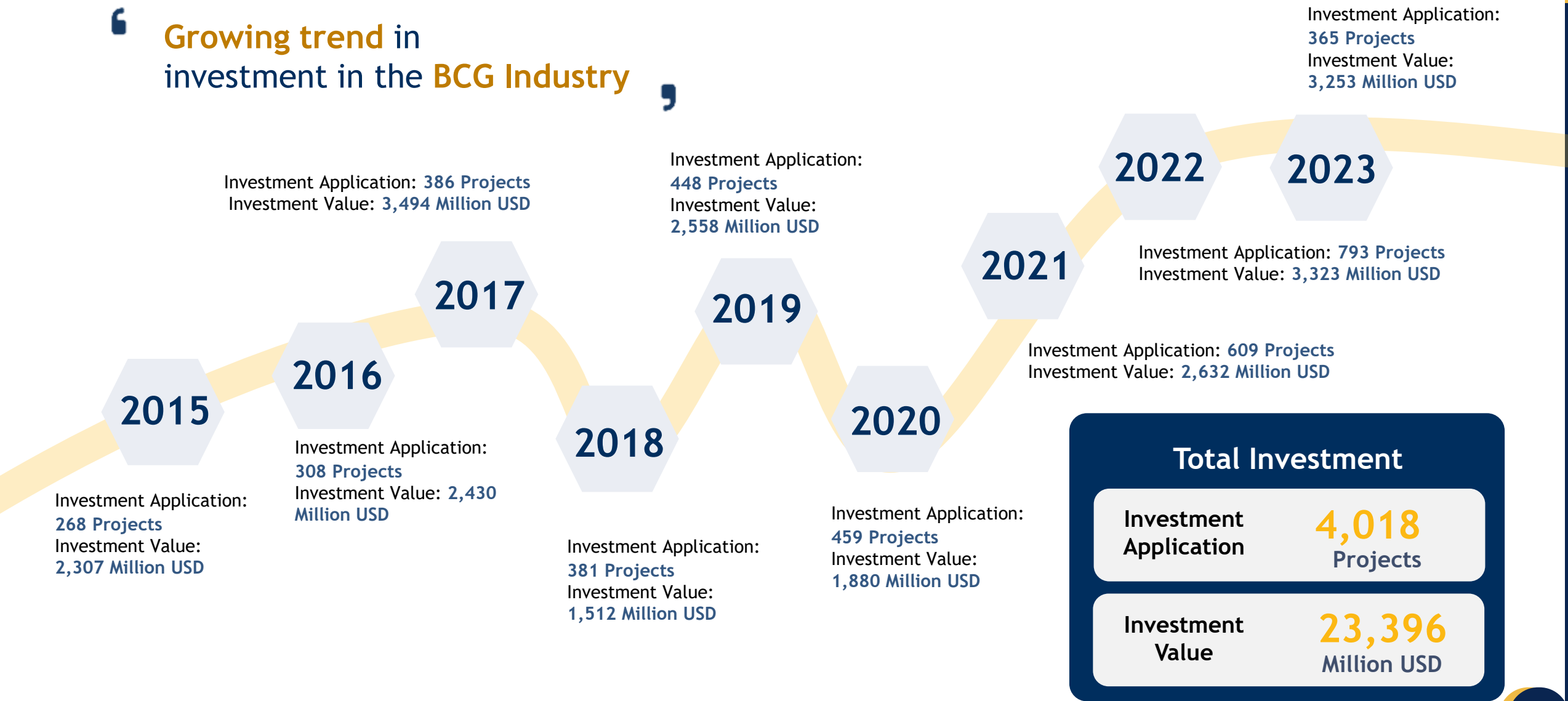
### 8 years CIT Exemption for:

- Production of electricity or electricity and steam from renewable energy



# Investment Application in BCG Industry between 2015-2023

“ **Growing trend in investment in the BCG Industry** ”



Note: Exchange Rate from Bank of Thailand as of May 20, 2024 (1 USD = 36.4102 THB)



# To Support Smart and Sustainable Industries, BOI promotes numerous business activities that are considered environmentally

## 2<sup>nd</sup> Pillar



Accelerate Transitions to Smart and Sustainable Industries, both through New Investment and Upgrade of the Existing Businesses.

### Promotion of Manufacturers

- Manufacture of Machinery / Automation
- Development of Software, Digital Services, Digital Content, and Digital Infrastructure

### Promotion of Users

- Promote Uses of Digital Technology to Improve Efficiency: such as applying AI, machine learning, data analytics, or 5G in the operations.
- Promote Efficiency Enhancement for Industry 4.0 Transformation



**Smart**  
(Automation & Digitalization)



**Sustainability**  
(Decarbonization)



### Promotion of Manufacturers

- Electricity Generation from Renewable Energy and Wastes
- BCG and Eco-friendly Industries such as activities involving bio-plastics, recycling, electric vehicles, petrochemicals using the CCUS technology, and cold storage using natural refrigerants.



Production of Hydrogen / Green Ammonia and Electricity Generation from Hydrogen



### Promotion of Users

- Promote Efficiency Enhancement : uses of energy-saving machinery and renewable energy to reduce environmental impacts and greenhouse gas emissions.



# Investment Application for Promoting Smart and Sustainable Industry from 2018 to 2023



Over the past 2 years, there has been a **significant increase** in BOI Investment applications for promoting the installation of solar cells

indicating a rising trend towards the **utilization of alternative energy sources**



Total applications for



Promoting Energy Conservation



Utilizing Renewable Energy



Reducing Environmental Impact



Elevating Sustainability Standards

Investment Application (Projects)

Investment Value (Million USD)

2018	106	185
2019	121	157
2020	216	452
2021	114	226
2022	380	424
2023	326	442

Total

1,280 Projects

1,886 Million USD

# The Role of BOI in Promoting "Go Green" Investments



## Energy Sector



- Collaborate to advocate for mechanisms to procure clean energy, such as Utility Green Tariff (UGT)
- Promote the production of clean energy

## Industrial Sector



- Encourage the development of BCG industries
- Implement measures to transition industries towards Smart & Sustainable Industry practices

## Transportation Sector



- Encourage widespread adoption of Electric Vehicles (EV)

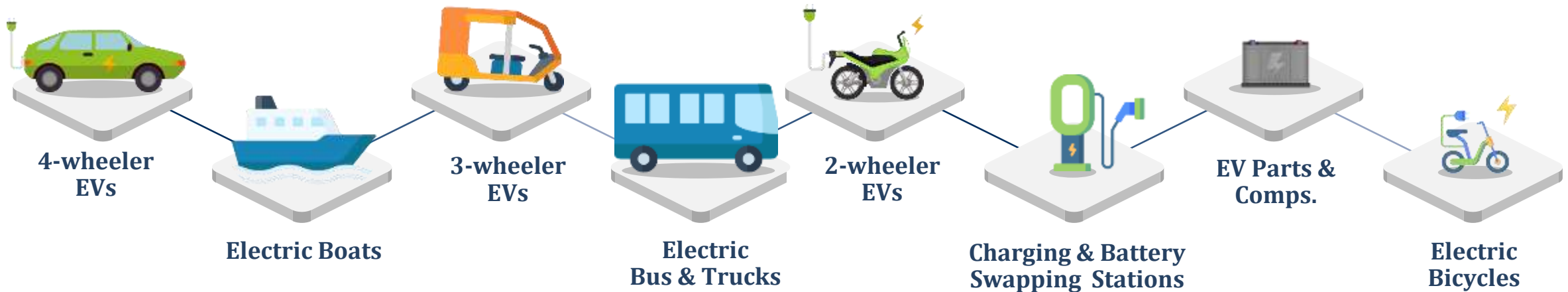
## Community Sector



- Implement the investment promotion measures aimed at developing communities and societies

# BOI Promotion on Battery Electric Vehicles (BEV)

BOI promotes every various types of **battery electric vehicles (BEV)**, including **BEV platforms** and Development of **Software & Digital Platform** with an aim of developing the country as Asia's manufacture hub of EVs.



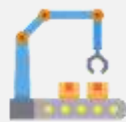
## INCENTIVES



Exemption Import duties on raw materials Used in R&D



Exemption Import duties on machinery



Exemption Import duties on raw materials



**Non-tax incentives**

**CIT Exemption: 3 - 13 years**



# BOI launched new policies to support the adoption of automation and manufacture of EV battery

Support the adoption of **Automation and Robotics** to improve production efficiency for automobile production

## Target Activities



Software Programs



AI & Machine Learning



Cloud / Data Center

## Scope of Promotion



General automobile



BEV, PHEV, HEV, BEV Platform

## BOI Incentives

- Exemption from corporate income tax for 3 years, 50 percent of investment in automation systems and robots
- Exemption of import duties on machinery

Support the investment in **battery production** for electric vehicles and energy storage systems (ESS)

## Conditions

- (1) Must be a leading producer of batteries used by electric vehicle manufacturers
- (2) Must have a plan to produce battery cells for electric vehicles which can also produced Battery cells for energy storage systems (ESS)
- (3) Battery cells must be produced with a specific energy value of not less than 150 Wh/Kg
- (4) Must be a minimum number of charging cycles (Life Cycle) Not less than 1,000 cycles

## BOI Incentives

Investors will be able to request benefits and financial support from the Competitiveness Enhancement Division under BOI

**Must submitted the project within 2027**



# The EV industry has shined due to the influx of investment from many countries, including US and China

## Number of Registration in 2023

Battery Electric Vehicle (BEV)

Increased from 2022

Electric Motorcycle

Increased from 2022

**76,739** Units

**6.5x**

**21,677** Units

**1.5x**

## Investment Application in EV Industry between 2017 - 2023

EV Manufacturing

Motorcycle

Bus

EV Battery and ESS

Key Parts

Charging Station



18 Projects  
USD 1,099 M.

9 Projects  
USD 23 M.

3 Projects  
USD 60 M.

39 Projects  
USD 657 M.

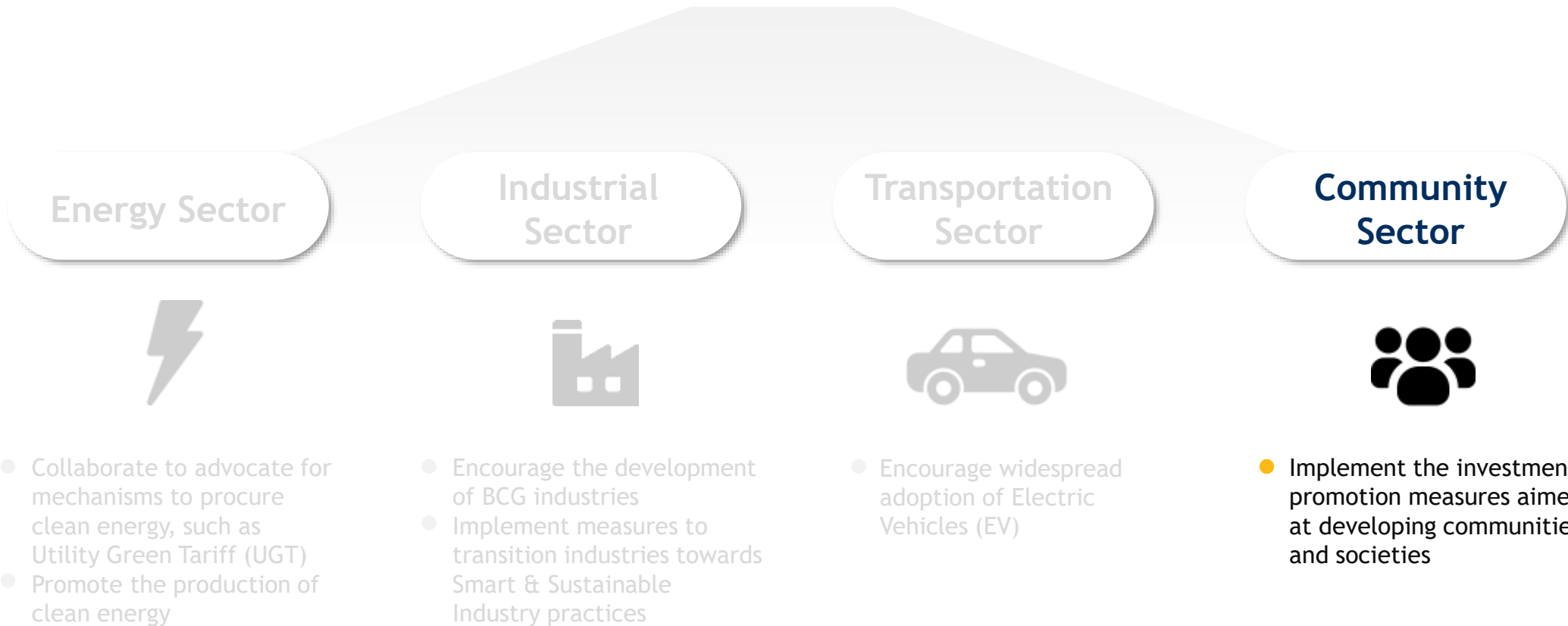
20 Projects  
USD 166 M.

14 Projects  
USD 115 M.

Note: Exchange Rate from Bank of Thailand as of May 20, 2024 (1 USD = 36.4102 THB)

Source: BOI

# The Role of BOI in Promoting "Go Green" Investments



# BOI encourages the green investment to alleviate the pollution

## 6<sup>th</sup> Pillar



Encourage the **green investment** through **investment promotion measures** to solve the PM 2.5 issue

### 1 Encourage the entrepreneur to support local organization to reduce PM2.5

- Fireline Construction
- Weir to delay moisture
- Support the Tools and Equipment to Suppress the Forest Fires
- Training and Prevention of Forest Fire Management

### 2 Expand the scope of supported parties

- Cooperative Society
- Community Enterprise
- Social Enterprise
- Local Administrative Organization
- **Farmers registered with Ministry of Agriculture and Cooperatives (New)**

Maximum of CIT  
Exemption

**3 Years**

(Not exceed 200 percent of  
investment value)





THAILAND  
BOARD OF  
INVESTMENT

## For More Information



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