



**Board of Directors  
Strategic Thinking Session 2022**

# **Sustainability**

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**19 Aug 2022**



# Strategic Move to the New ERA



# Restart Sustainability Driver for Sustainable Growth by 3C

## Climax change

Low Carbon +

Support **low carbon society** and sustainable roadmap to net zero



## Circular Economy

Living +

Create Living + for all stakeholders through **waste minimization and Eco solution** business and services



## Creating Shared Value

Recognition +

Honors and awards from **positively impact** the health and wellbeing of people through our products and business



# Impact of GHG & Climate Change Thailand Commitment

## COP26 Glasgow Climate Pact

Focusing on real actions and urgency

1.2 °C



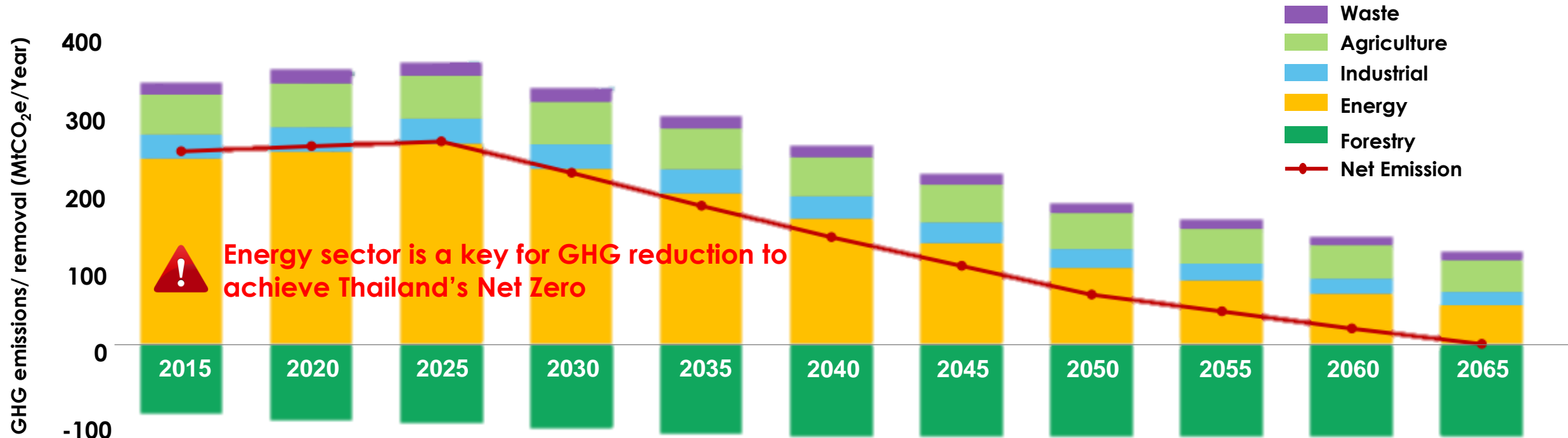
Emission cut by 40% in 2030\*  
**Carbon Neutral in 2050**  
and **Net-Zero in 2065**

Note: \* Base on projected Business-as-usual (BAU) level by 2030

### Key Actions

- 100% EV sales by 2035
- Expand carbon sink in the forestry
- Expand renewable energy generation

## Thailand's Long-Term Low Greenhouse Gas Emission Development Strategy



อ้างอิง: ผลการศึกษาการปรับปรุงสถานการณ์จำลอง การปล่อยก๊าซเรือนกระจกของ LT-LEDS (ฉบับปรับปรุง) เพื่อมุ่งสู่เป้าหมาย 2065 NET ZERO EMISSION จาก สำนักงานนโยบายและแผนทรัพยากรธรรมชาติและสิ่งแวดล้อม (นำเสนอผลการศึกษา ๑๘ กรกฎาคม ๒๕๖๕)



# Clim<sup>a</sup>te change

Support **low carbon society** and sustainable roadmap to net zero



Low Carbon +

Aspiration

IRPC aims to...



Commit to reduce emissions by

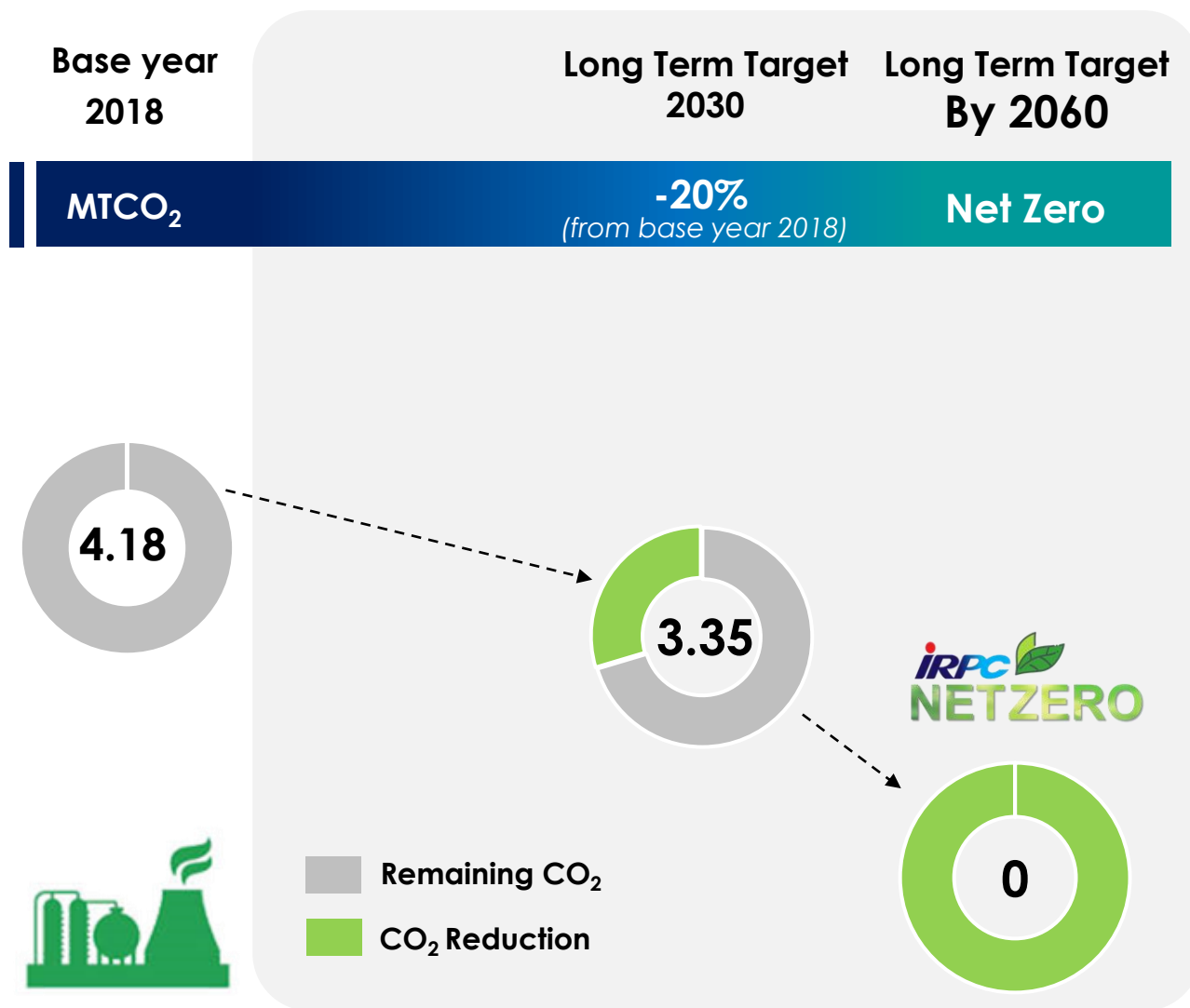
**20% by 2030\***

**Carbon Neutrality 2050**

**Net Zero by 2060**

\* Base year 2018

# Our Journey ... To be NET ZERO by 2060 with ERA



Note: Base year 2018  
 • 5 years turn back from current  
 • Normal operation

Note: Number refer to Absolute Remaining CO<sub>2</sub>

## 3 Core Pillars to Drive Net Zero Commitments.

### 1 Eco-operation & technology

#### Eco-Operation

- Energy Intensity Index (EII)

#### Greener Power

- Solar Power & Divest Coal

### 2 Reshape portfolio

#### Low Carbon Business

- Renewable Business
- Decarbonized Product

#### Clean Technology

- H2 Ecosystem
- Decarbonized Startup

### 3 Absorption and offset

#### CCS

- CCS with in PTT group

#### Forestation

- PTT Collaboration



Existing IRPC emission

IRPC existing emission portfolio by  
Source

4,000,000+

tCO<sub>2</sub>e (Scope1+2)



## Eco-operation in all assets and Greener Energy

Switching operations to renewable energy and alternative fuels,  
and achieving energy savings project by innovation



### Eco-Operation

Utilize every means to increase energy efficiency and  
reduce GHG emission.

- **EI** Top Quartile **~83%** in 2025
- Zero routine flaring



### Greener Energy

Switching operations to renewable energy and  
alternative fuels.

- **Solar** (Floating, Rooftop, Solar Farm)
- **Divest Coal (U03,04)** to NG
- **Divest Coal (U02)** to **50MW** (Fuel Cell Study)

## 2 Reshape portfolio



**Expedite New Stream via  
Low carbon and clean tech.**

### Portfolio adjustment to low carbon and clean technology project



#### Low Carbon Business

##### Renewable Business

- **Solar-Wind-Battery**
- **Innovative Solutions** Provider for renewable energy e.g. Flex Solar PV, Nano Coating, Pontoon and Bifacial PV

##### Decarbonized Product

- **Bio energy:** Bio jet study
- Explore business opportunities of **CCU**



#### Clean Technology

- Seeking new opportunities in **H2 ecosystem**
- Scouting potential **startup via Decarbonize Thailand** Startup Sandbox program



### 3 Absorption and offset



**Capture & offset carbon  
using CCS technologies  
and Nature**

**Capture & offset carbon using CCS technologies and nature**



CCS technology through collaboration with in PTT group



## **Forestation**

- The creation of stakeholder engagement and social impact through community forest development
- Taking credits from forestation projects to offset CO<sub>2</sub> emission from operations

# Key Considerations as IRPC Start to Execute Net Zero

## WHAT

Three Core Pillars to Drive Net Zero Commitments.

### Eco-operation & technology

Shift the operation from fossil based power to renewable energy and increase energy efficiency

### Reshape portfolio

Adjust portfolio by investing in non-oil with Eco-Solutions

### Absorption and offset

Seek all means to absorb and offset carbon

## WHEN

Commit to reduce emissions by  
**20% by 2030\***

Carbon Neutrality 2050  
**Net Zero by 2060**

\* Base year 2018



- Indicator - **Carbon Price**

Internal   External

## WAY FORWARD

Start to execute Net Zero



**Governance and Organization**



**Investing and Financing**



Carbon inclusive investment

ESG Financing



**Processes**



**Accounting and Reporting**



**People**

## Circular Economy

Create Living + for all stakeholders through **waste minimization and Eco solution** business and services



Living +

Aspiration

IRPC aims to ...

## Build the ECO-Solutions and Turning Waste to Value

Policy: Maintain Zero waste to landfill

- A** Waste utilization with 3R principle > 95% in 2040
- B** Waste to value (IRPC Circular Concept)



## Creating Shared Value

Honors and awards from **positively impact** the health and wellbeing of people through our products and business



Recognition +

Aspiration

IRPC aims to...

**Uplifts the sustainable value  
to stakeholder  
by**

**Increase 20% of  
True Value  
in 2030**

***Economy — Ecology — Social***

Note: IRPC True Value Assessment 2021 at 10%