

# PERTAMINA'S LOW CARBON PRODUCTS

*"Pertamina remains committed to accelerating energy transition in accordance with the government's targets. This commitment is a strategic step for Pertamina by developing lower-carbon energy products and solutions to achieve the consensus goal of providing equitable access to sustainable energy and protecting our climate for generations to come."*

**Nicke Widyawati**  
 President & CEO of PT Pertamina (Persero)

Pertamina formulates numerous greener energy products as part of commitment to reduce emission production.

Pertamina's low carbon products generate:

**USD 288 Mio\***  
 of revenue by October 2022

\*Unaudited

## Pertamina's Aspiration: Support the 2060 Net Zero Emission Target

Pertamina has a vision to support the Government in realizing Net Zero Emission by 2060 with 2 important pillars of strategic initiatives:

### Strategic Initiatives

#### Decarbonization of business

- Energy efficiency
- Green power generation
- Loss reduction (e.g., flare, methane)
- Fleet electrification
- Static equipment electrification
- Carbon capture and storage (own use)
- Low/ zero carbon fuel for fleets

#### New business building

- Renewables
- EV Charging and Swapping
- Blue/Green Hydrogen (manufacturing, transport)
- Nature-based solutions
- Battery and EV
- Biofuels
- Integrated CCS/ CCUS service (domestic/ regional carbon sink)
- Carbon market business



## Commercial Development



### Pertamina Renewable Diesel (Pertamina RD)

Pertamina launched **green energy product which is originated from 100% Palm Oil**. This product used Refined, Bleached, and Deodorized Palm Oil Material, hence it categorized as environmentally friendly fuel



### Pertasurf

**Special synthetic chemical product** formulated for AFFF, OSD, and Degreaser all at once, **using environmentally friendly emulsifier technology**. It is highly biodegradable, more effective, and multifunction capability.



### Geothermal Steam & Electricity

The use of geothermal fields where the steam produced is **used to generate electricity thereby reducing emissions and optimizing domestic natural energy resources**



### Biomass/Biogas Power Plant

**NRE-based power generation through the optimization of biomass as an energy source**. It uses Palm Oil Mill Effluent (POME) palm oil waste as fuel for electricity generation.



### Solar PV

Solar-powered power plants as one of the environmentally friendly energy sources that **convert solar energy into electricity using photovoltaic modules**.



### Smooth Fluid

**Special synthetic chemical product formulated using environmentally friendly material for drilling activity**

## Pilot Project



### Sustainable Aviation Fuel

Pertamina developed BioAvtur J2.4, palm-oil based aircraft fuel in Cilacap Refinery. It is proven to **deliver performance equivalent to fossil-based aviation turbine (avtur) fuel but with lower carbon emission**.



### Green Energy Station (GES)

An innovative **Charging Station that uses solar panels as an energy source and provides EV Charging facilitation** also a wide selection of environmentally friendly products such as the Pertamax Series and Dex Series.



### Gasoline-Methanol-Ethanol (GME)

Gasoline products with a **blending mixture of methanol and ethanol** that reduce sulfur content