

# Company profile 2026

Responsible chemical & energy leader



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# Chemical & Energy Leader Hanwha TotalEnergies Petrochemical

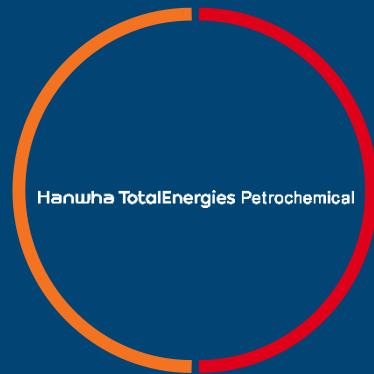
Hanwha TotalEnergies Petrochemical, established in 1988, has been driving the development of South Korea's petrochemical industry through the production of high value-added chemical and energy products.

Relaunched as a joint venture with TotalEnergies, Hanwha TotalEnergies Petrochemical is advancing as a global multi-material and energy company under the vision of a "Responsible Chemical & Energy Leader," continuously pursuing technological and product innovation as well as strategic facility investments.

## Equity Ownership

50%

Hanwha Impact



50%

TotalEnergies  
Holdings UK Limited

## Information

Company Establishment : May, 1988

Business Areas : Base Chemical · Polymer · Energy Products

Plant Location : Daesan-eup, Seosan-si, Chungcheongnam-do

Chief Executive Officers : Sangseob Na · Dominique Vincent

Aromatic plant No.2

# Hanwha

## Sustainable Solutions for Tomorrow, Hanwha

Founded in 1952, Hanwha has grown into South Korea's seventh-largest business group with a balanced portfolio spanning aerospace·defense, energy·materials, finance, and retail·services. Ranked one of the (Fortune Global 500), the company operates as a multinational enterprise with a strong global network, enabling it to deliver competitive solutions and innovations that drive sustainable growth across industries and communities. Hanwha will continue to advance innovation to enrich human life and address the fundamental challenges facing humanity.

Year of Establishment	Annual Sales(2024)	Ranking in Korea (2024 consolidated assets)	Global Network
1952	87.4 trillion(₩)	7 <sup>th</sup>	821

### Business Field



Aerospace·Mechatronics



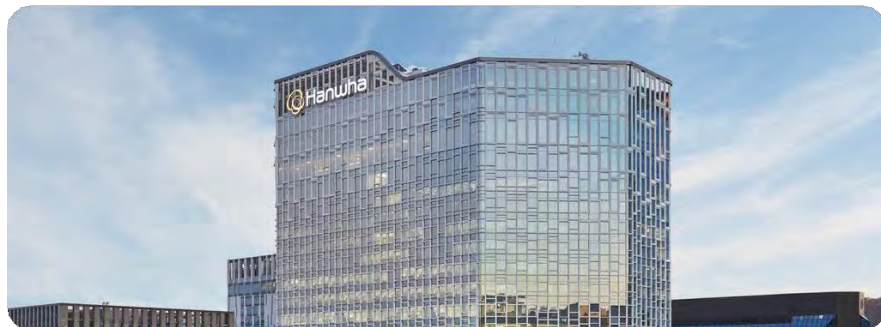
Energy·Ocean



Finance



Retail·Service



# TotalEnergies

## Major Global Energy and Chemical Company, TotalEnergies

What began in 1924 as a French state-run oil refinery has evolved into one of the world's major energy and chemical companies, following successive mergers with Belgium's Petrofina SA in 1999 and France's Elf Aquitaine in 2000. Committed to providing customers with stable, clean, and competitive products, the company now engages in oil and renewable energy development while operating as a total energy service provider in more than 120 regions around the world.

Year of Establishment	Annual Sales(2024)	Number of Employees	Global Network
1924	201.2 billion(\$)	101,513	120

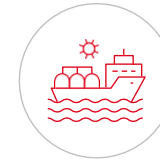
### Business Field



Oil exploration·production



Renewable energy·Electricity



Trading·Shipping



Refining·Petrochemicals



# Key Highlight 2025

Year of Establishment

1988

Total Production Capacity

10.55 million tons

Initial production capacity in 1991 ▶ 0.67 million tons

Total Area

3.3 million m<sup>2</sup>

Plants

20

Total Assets

7.3 trillion(₩)

Sales

10.8 trillion(₩)

Number of Employees

1,826

Sales(Unit: KRW in trillions)



Total Assets(Unit: KRW in 100 millions)



Electricity

Average usage

345 MWh

Steam

Average usage

322 Ton/hour

Water

Average usage

75,840 Ton/day



2 piers

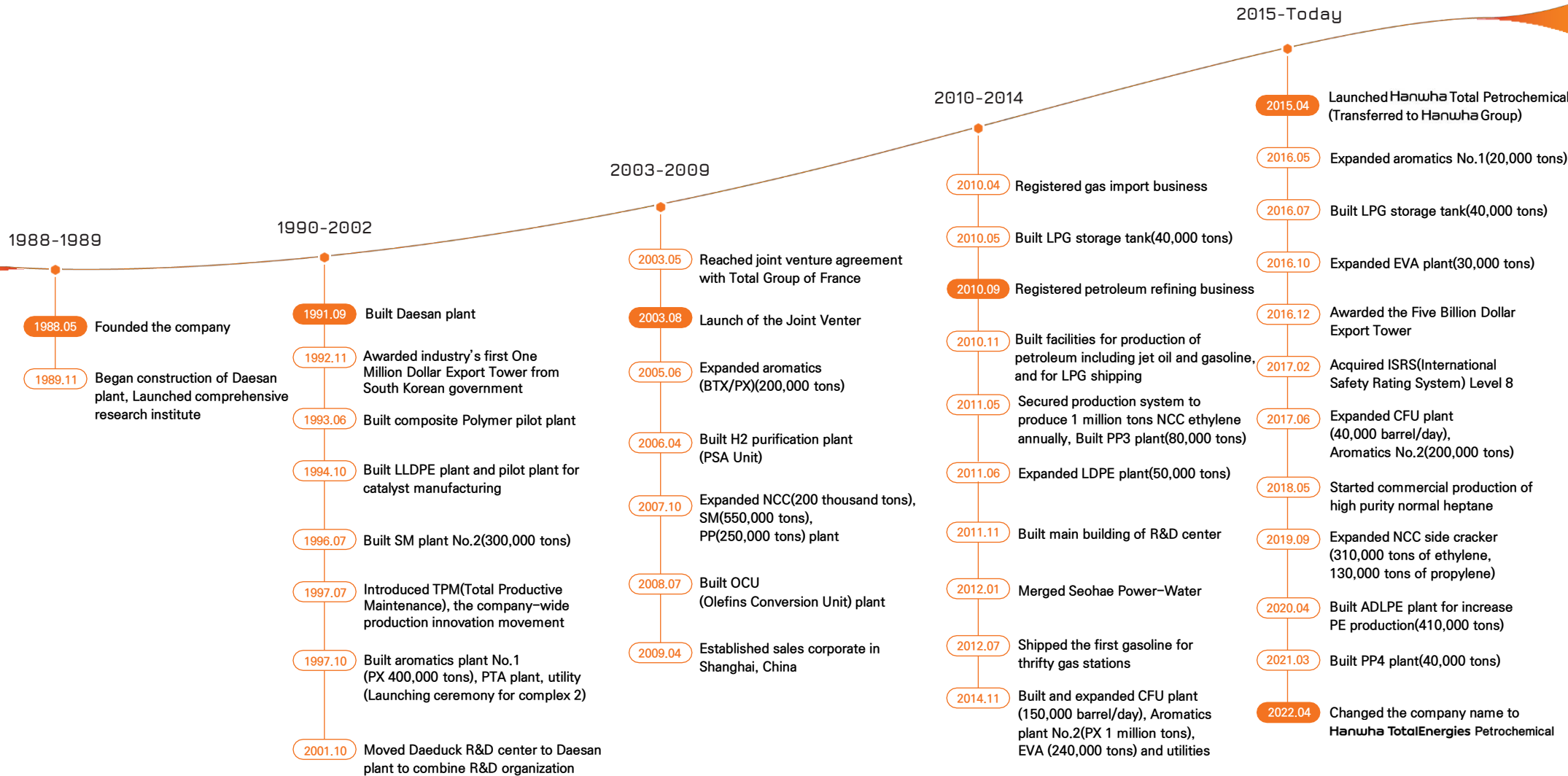


7 berths



8 automatic storage warehouses

# History of Growth



# Plant Overview

Hanwha TotalEnergies Petrochemical is South Korea's first petrochemical company to operate: an NCC(naphtha cracking center), a core facility of a petrochemical plant; a CFU(condensate fractionation unit), a petroleum refinery facility; and a BTX production facility (aromatic plant). Through vertical integration from raw materials to final production, we have achieved high production efficiency.

## Key plants in the complex

Operated since 1991

- 1 NCC
- 2 C4/BTX/OCU
- 3 SM #1/#2
- 4 EO/EG
- 5 HD/PP/PP3
- 6 LD/LLD

Operated since 1997

- 7 ARO#1
- 8 PTA(Hanwha Impact)

Operated since 2014

- 9 EVA
- 10 CFU/ARO#2

Operated since 2020

- 11 ADLPE

Operated since 2021

- 12 PP4



Total area : 3.3 million m<sup>2</sup>

Factory site : 2.71 million m<sup>2</sup>



# Business Area | Polymer

Utilizing Ethylene and Propylene, Hanwha TotalEnergies Petrochemical is leading the market for high-value-added plastic products.

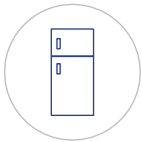
From household appliances to protective films, we produce a wide range of resin products with diverse properties that are used throughout everyday life.

Business Area

Polymer

Base chemical

Energy



## HDPE

High Density Polyethylene

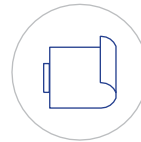
Raw material for various containers and plastic boxes with excellent impact and cold resistance



## LDPE

Low Density Polyethylene

Used for packaging transparent film, cable coating and disposable products with excellent processability, flexibility and transparency



## LLDPE

Linear Low Density Polyethylene

Similar to LDPE but more specialized in manufacturing film with good intensity



## PP

Polypropylene

With lightest density, high mechanical strength, heat resistance and transparency, used for home appliances such as irons, coffee pots as well as textile material



## EVA

Ethylene Vinyl Acetate

Featuring increased density and flexibility depending on the content of vinyl acetate, used for various applications from foam molding products as sneaker outsoles to film adhesives

# Business Area | Base Chemical

Hanwha TotalEnergies Petrochemical provides customers with various base chemicals of the petrochemical industry.

In particular, PX and SM have secured the largest production capacities in South Korea, achieving unparalleled scale-based competitiveness.

Business Area

polymer

Base chemical

Energy



SM

Styrene Monomer

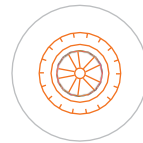
Raw material for PS and ABS  
For home appliances, also used in synthetic rubber production through polymerization with butadiene



EO/EG

Ethylene Oxide, Ethylene Glycol

EO, with sterilizing and insecticidal properties, used as a gaseous disinfectant and a raw material for synthetic detergents.  
EG, produced by reacting EO with water, used as for antifreeze or polyester products



BD

Butadiene

Raw material for synthetic rubber such as SBR and BR



PX

Para-Xylene

Raw material for high-purity terephthalic acid (PTA), an intermediate for synthetic fibers and PET bottles



BZ

Benzene

Raw material for styrene monomer(SM)

## Business Area | Energy

By leveraging our CFU, a refinery facility, and two aromatic plants, Hanwha TotalEnergies Petrochemical produces a variety of high-quality energy products. We are focused on quickly expanding into energy market by strengthening high-value-added products backed by stable supplies.

Business Area

polymer

Base chemical

Energy



LPG

Used for automobile fuel, propane gas, and butane gas burners



MOGAS

Light petroleum fuel for gasoline internal combustion engines, used in passenger cars, motorcycles, and small machinery



Jet Oil

Fuel for turbine engines in aircraft, military aircraft, and helicopters, providing stable combustion at high altitudes and excellent resistance to cold



Hi-sene

Alternative fuel oil for heat supply facilities using kerosene or diesel, offering excellent economic efficiency as an environmentally friendly fuel



S-Kerosene

High-quality white kerosene with low sulfur content, low odor and soot, and high calorific value, used as fuel for residential boilers, heaters, and grain dryers



Diesel

Heavy petroleum fuel for diesel engines used in trucks, buses, and construction equipment, featuring auto-ignition through compressed air with high fuel efficiency and power output



Bunker A

Blending of diesel and heavy fractions from the latest desulfurization facilities for high fuel efficiency, power output, low pour point and minimal impurities – usable without heating in summer (Complies with IMO sulfur oxide emission regulations)



Solvent

A hydrocarbon compounds derived from naphtha, kerosene, and other products obtained during crude oil refining as a volatile liquid used for dissolving or diluting other substances

# R&D Competitiveness

Sustainable material development and energy transition

Hanwha TotalEnergies Petrochemical is striving for technological innovation to strengthen the competitiveness of current key businesses, while creating future value.

The R&D center focuses on creating distinctive intellectual property for sustainable material development and energy transition by pursuing technology-intensive R&D projects and leveraging open innovation.



IR52 Jang Young-sil Awards

**16** times

Ministerial Awards

**22** times

New Excellent Technology(NET)

**15** times

Prime Minister's Commendation

**1** time

World-Class Product of Korea

**6** times

R&D Center

Catalyst· Processing labs(R&D Building 1)  
Analytical· Physical labs(R&D Building 2)

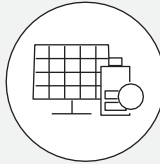
Material, Base Chemicals· Energy labs(R&D Building 3)  
External labs(R&D Seoul Office)

R&D Building 3 in Daesan

## Business Highlight

**Hanwha TotalEnergies Petrochemical** produces a wide range of EVA, PE, and PP products based on advanced catalyst technology and product design expertise. Our EVA and PE products are used in solar cells, bottle caps, and many other everyday applications, enriching daily life.

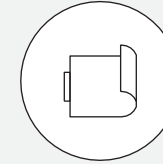
## EVA·PE Ethylene Vinyl Acetate·PolyEthylene



### EVA for solar cell

Featuring excellent transparency that enhances solar energy efficiency as well as ultra-high purity and low shrinkage.

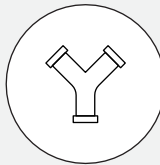
- IR52 JangYoung-sil Award in the 13th week of 2016
- World-class Product of Korea in 2015



### EVA for extrusion coating

Developed using proprietary polymerization technology. With high-speed processability, transparency, and adhesion, used in coating films for photographs, printing paper, and other applications.

- World-class Product of Korea in 2017



### HDPE for pipe

High processability, crack resistance. Used for water and gas pipe lines.

- IR52 JangYoung-sil Award in the 12th week of 2025



### HDPE for bottle caps

Applied as a cap for plastic bottles. A high value-added product that meets diverse customer needs.

- World-class Product of Korea in 2016



### VPE for battery separators

With proprietary high-performance catalyst, dramatically enhanced separator membrane processability, strength, and stability.

- IR52 Jang Young-sil Award in the 46th week of 2023



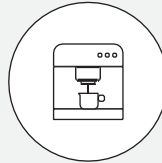
EVA for solar cell

## Business Highlight

**Hanwha TotalEnergies Petrochemical** produces strong, heat-resistant PP products that keep our daily lives safe. Our PP products are widely used across industries as materials for electrical and electronic components, automotive interior and exterior parts, and power cables.

PP for power cables

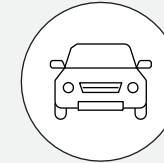
## PP PolyPropylene



### HIPP for electronics applications

Excellent rigidity, shock and heat resistance. Used in a wide variety of electronics that require long-term thermal stability including household appliances such as steam cleaners, coffee makers.

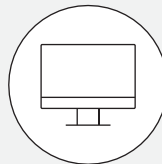
- World-class Product of Korea in 2018



### High appearance PP for automotive applications

Used in internal and external parts including bumpers. Minimized surface defects such as flow marks and sink marks by enhancing flow properties.

- IR52 JangYoung-sil Award in the 2nd week of 2013
- World-class Product of Korea in 2017



### PP of protective film for display materials

World-class quality with surface defects reduced to less than one-twentieth of standard products. Easy control of physical properties for diverse applications tailored to customer needs.

- IR52 JangYoung-sil Award in the 6th week of 2012
- World-class Product of Korea in 2019



### PP for eco-friendly power cables

Developed Eco-friendly PP with high-energy efficiency and recyclability. Used for insulators, a core component of high voltage power cable. Excellent heat resistance, softness and voltage withstand capability.

- 2020 New Excellent Technology(NET) Certification

## Business Highlight

**Hanwha TotalEnergies Petrochemical** focuses on R&D of high-activity catalysts tailored to product characteristics, enhancing cost competitiveness and product quality.

And the solvent products developed using our proprietary process technology are also applied across various industries, expanding their influence.



Eco-friendly catalyst for PP

## Catalyst

### Catalyst for ultra-high molecular weight PE

Developed high-temperature catalysts controlling molecular weight distribution and powder formation, achieving over three times the polymerization activity of commercial catalysts.

- IR52 JangYoung-sil Award in the 46th week of 2023

### PP catalyst for enhanced copolymerization

Developed Ziegler-Natta catalyst for PP polymerization with high activity and excellent copolymerization capability, achieving over twice the activity of commercial catalysts. Used in eco-friendly PP cable applications.

- 2020 New Excellent Technology(NET) Certification

### Catalyst for high-performance polymerization

Highly active, high isotactic Ziegler-Natta polymerization catalysts to improve productivity with over 3 times higher activity and uniform morphology than commercial catalysts.

- 2007 New Excellent Technology(NET) Certification
- IR52 JangYoung-sil Award in the 38th week of 2007

### Eco-friendly catalyst for PP

Developed eco-friendly non-phthalate donor catalysts to respond to strengthened phthalate compound regulations. Used for materials for food, medical and infant necessities.

- IR52 JangYoung-sil Award in the 21st week of 2014

## Solvent

### High-purity hexane and heptane

High-purity products using our proprietary SMB technology to concentrate low-purity hexane. Applied in the production of active pharmaceutical ingredients (APIs), a key component in cutting-edge semiconductor and pharmaceutical industries.

## Business Highlight

**Hanwha TotalEnergies Petrochemical** operates various pilot plants for the development of competitive resin products. At the same time, we drive process development based on proprietary simulations, striving to create sustainable future value.

## Process



### POE·LAO Pilot

Completed construction of POE pilot plants to secure high-entry-barrier manufacturing technology for raw material production, as well as LAO pilot plant to supply raw materials for POE.



### Polymer Pilot

Operating two polymer pilot plants to develop a variety of products, including HDPE, LLDPE, and PP, tailored to customer needs and market trends.



### New SM manufacturing process

Developed the world's first SM (Styrene Monomer) manufacturing process for improved productivity based on analysis of catalyst deactivation using computer simulation.



### LD·EVA polymerization reaction simulator

Developed the simulator for ultra-high pressure tubular LD·EVA polymerization process and prediction of product properties, an essential element for developing high value-added products.



# Global Network

## Domestic

- Daesan Plant (Head Office) : 103, Dokgot 2-ro, Daesan-eup, Seosan-si, Chungcheongnam-do 31900, Korea  
☎ (82)41.660.6114 | FAX (041)681.4812
- Seoul Office : INNO88 TOWER, 10-13F, 88 Yulgok-ro, Jongno-gu, Seoul 03131, Korea
- ☎ (82)2.3415.9499 | FAX (02)774.2727

## Overseas

- Europe Branch (Frankfurt, Germany): Kölner Strasse 10b 65760 Eschborn Germany  
☎ (49)6196.779.5217 | FAX (49)6196.9020.644
- Japan Branch (Tokyo): Hanwha building 1F, 10-1, Shiba 4 Chome, Minato-ku, Tokyo 108-0014, Japan  
☎ (81)3.6369.6381 | FAX (81)3.6369.6066
- Singapore Branch: 048581 16 Raffles Quay, #14-03A Hong Leong Building, Singapore  
☎ (65)6223.5288 | FAX (65)6223.1828
- Shanghai Trading Corporation: Room 1701, Tower A, Dawning Centre, No.500 HongBaoShi Road, Changning District, Shanghai, China  
☎ (86)21.3209.7015 | FAX (86)21.3252.2286
- Beijing Branch : Room 2109-2110, Taikang Financial Tower, 38#Yard East 3rd ring North Road, Chaoyang District, Beijing, China  
☎ (86)10.8587.9896 | FAX (86)10.8587.9600
- Shenzhen Branch: Room 1202, DaBaiHui Plaza, No.3086, Jintian Road, Futian District, Shenzhen, Guangdong, China  
☎ (86)755.2399.6516 | FAX (86)755.2399.6510
- Dongguan Production Plant (China): No. 5, DaLingShan HuPan Road, DaLingShan Town, DongGuan, Guangdong, China  
☎ (86)769.8278.1999 | FAX (86)769.8278.1998