

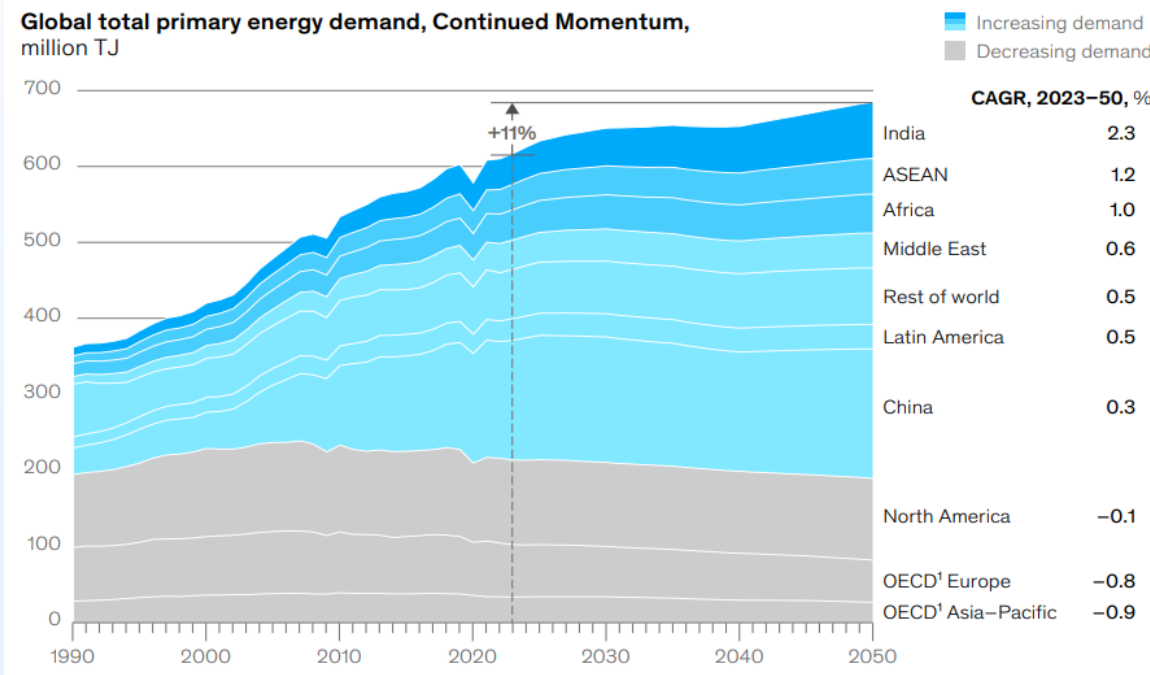
43rd JCCP International Symposium Enhanced Management and Human Capital Development Practices in the Energy Transition

Tokyo, January 2025

Global Energy Outlook - Trend and Transformation on The Demand Side

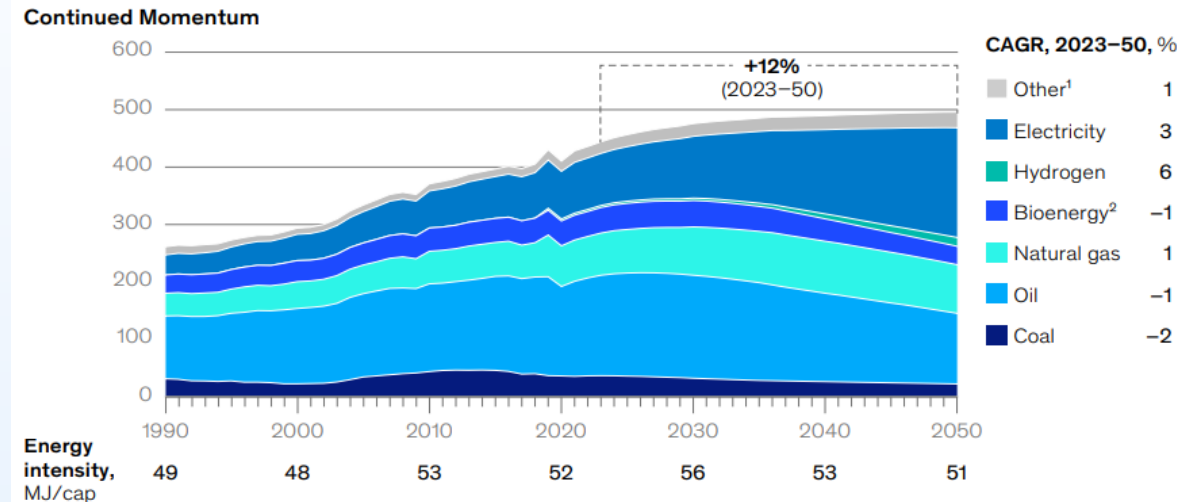
Rapid Growth in Clean Energy, but Fossil Fuels are Projected to Continue to Account For a Significant Share

Global energy demand is projected to grow by between 11 percent (in the Continued Momentum scenario) by 2050. Emerging economies in the ASEAN region, India, and the Middle East will account for the majority of demand growth.



Source : McKinsey & Company Global Energy Perspective 2024

The share of electricity in final consumption is projected to be 32 to 48 percent by 2050



Source : McKinsey & Company Global Energy Perspective 2024

The increase in consumption is largely due to the same fundamentals underlying global energy demand: population growth and increasing GDP per capita. The extent of this growth in consumption varies significantly by scenario due to differences in energy efficiency and electrification. **Despite the uptake of electrification, fossil fuels are projected to continue to account for a significant share of the energy mix to 2050.**

Pertamina's role as National Energy Company to fulfill energy demand & energy transition

ASTA CITA

PRESIDEN DAN WAKIL PRESIDEN

- 1** Memperkokoh ideologi Pancasila, demokrasi, dan hak asasi manusia (HAM);
- 2** Memantapkan sistem pertahanan keamanan negara dan mendorong kemandirian bangsa melalui swasembada pangan, energi, air, ekonomi kreatif, ekonomi hijau, dan ekonomi biru;
- 3** Meningkatkan lapangan kerja yang berkualitas, mendorong kewirausahaan, mengembangkan industri kreatif, dan melanjutkan pengembangan infrastruktur;
- 4** Memperkuat pembangunan Sumber Daya Manusia (SDM), sains, teknologi, pendidikan, kesehatan, prestasi olahraga, kesetaraan gender, serta penguatan peran perempuan, pemuda, dan penyandang disabilitas;
- 5** Melanjutkan hilirisasi dan industrialisasi untuk meningkatkan nilai tambah di dalam negeri;
- 6** Membangun dari desa dan dari bawah untuk pemerataan ekonomi dan pemberantasan kemiskinan.
- 7** Memperkuat reformasi politik, hukum, dan birokrasi, serta memperkuat pencegahan dan pemberantasan korupsi dan narkoba;
- 8** Memperkuat penyalarsan kehidupan yang harmonis dengan lingkungan, alam, dan budaya, serta peningkatan toleransi antarumat beragama untuk mencapai masyarakat yang adil dan Makmur.

The mission to **strengthen the nation's independence** through **energy self-sufficiency** is one of the key pillars of the national development strategy.

Pertamina's strategic role to support Indonesia Govt achieve net zero 2060 by developing roadmap decarbonization and green business

- 1
Maintaining Indonesia's Energy Resilience
- 2
Unleash domestic resources for energy self-sufficiency
- 3
Energy Transition toward Decarbonization



#1st Ranking
 Sub-Industry: **Integrated O&G**
 Out of 61¹

Pertamina prioritizes inclusivity to support its ESG commitments, ensuring that diversity and equal opportunities are integral to its sustainability strategy



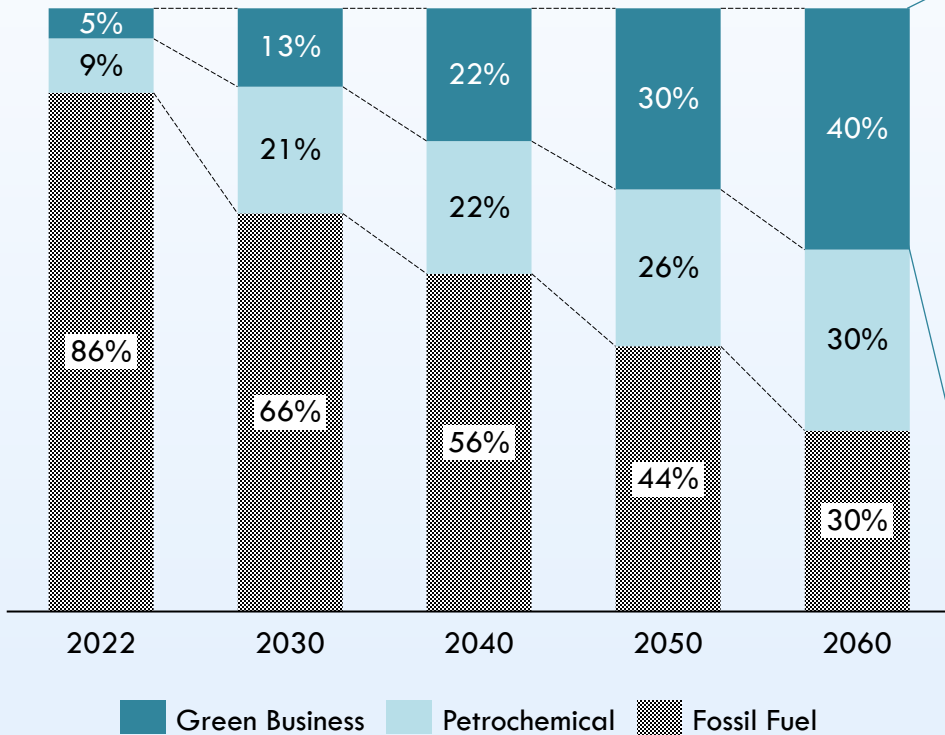
1st Winner Gender Inclusive Workplace from Women Empowerment Principal (WEP)



3rd Winner Companies that employ workers with disabilities from Ministry of Manpower

Pertamina will Develop Indonesia Renewables Energy Potential to Secure National Energy Security

**Business Pathway to Net Zero Emission
(Pertamina Revenue Mix)**



Opportunities for Indonesia New & Renewables Energy Portfolio

Geothermal 	Green Refinery 	Hydrogen
EV Battery 	Bio Energy 	Circular Carbon
Gasification 	New Renewable 	Hydro

Key targets 2025 (and 2029)

 Geothermal Capacity 0.9 GW <i>(1.4 GW)</i>	 Renewables (Solar, Wind, Bio) 65 MW <i>(1.2 GW)</i>	 Gas-to-Power 1.8 GW <i>(3.4 GW)</i>
 Green Hydrogen - <i>(77 ktpa)</i>	 NBS & Carbon Trading 1.6 mn tCO₂e <i>(19 mn tCO₂e)</i>	 CCS/CCUS - <i>(2 mtpa)</i>
 Bioethanol - <i>(630k KL/y)</i>	 EV and Battery 11.4 GWh <i>(2 GWh)</i>	

Pertamina focuses on "DUAL GROWTH STRATEGY" which is designed to strengthen Indonesia's energy security & low carbon business development for the energy transition

Referring to RJPP 2025-2029 (Supl. 2034), Pertamina will carry out a "dual growth strategy" in an effort to maintain energy security, energy affordability as well as efforts to achieve net zero emissions by 2060 (or sooner). In the context of this dual growth strategy, there will be new projects in both the existing/legacy business and new business (low carbon) categories.



Maximizing Legacy Businesses



Maximize Value in Upstream | Delivering energy security by optimizing baseline and driving production growth



Building Flexibility in Refineries | Optimizing refinery assets to build output flexibility and resilience for the future



Transforming Fuel Retail Business | Transforming our legacy business to prepare for direct subsidies, e.g., NFR, MyPertamina



Expanding the Infrastructure and Services | Expanding gas T&D infrastructure and shipping business in the oil & gas midstream



Building Low Carbon Businesses



Scale Biofuel Ecosystem | Investing in bio-ethanol, HVO/SAF, & bio-methane



Downstreaming to Enhance Chemical offering | Scaling up petrochemical & gas-to-chemical capacity and integrating further to complex products



Expand Geothermal capacity | Growing capacity and exploring new business model for geothermal resources



Pilot emerging Low Carbon Technologies | E.g, CCUS/CCS, low carbon hydrogen, NBS and carbon credits, biomass co-firing, EV and battery, oleochemical



HSE and Sustainability



Technology & Innovation



Digital Transformation



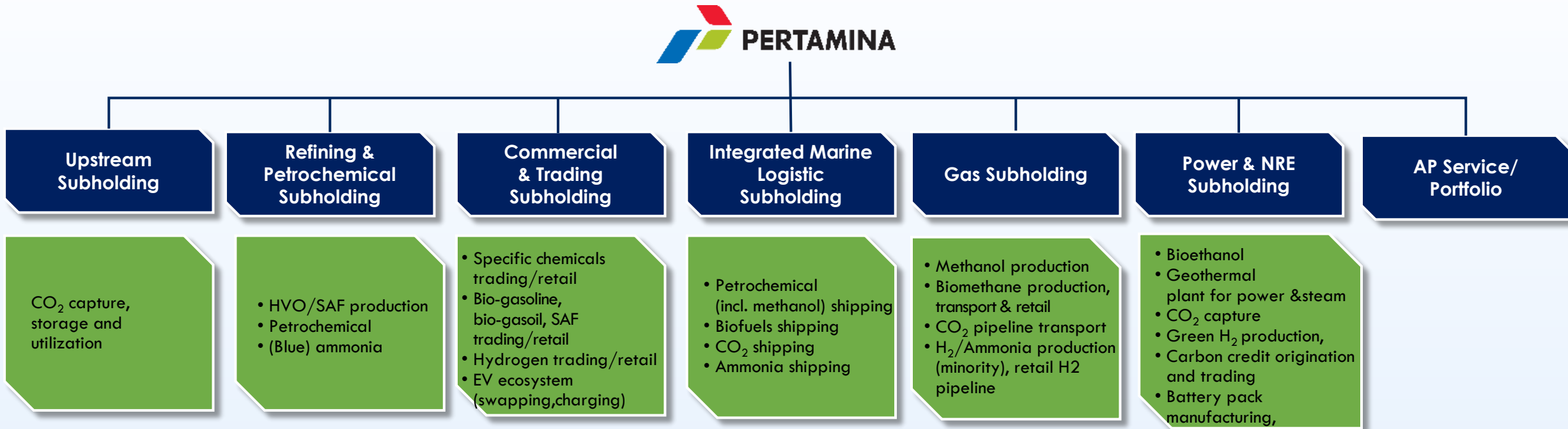
Policy/Regulation Advocacy



Human Capital and Stakeholder Mgt

Pertamina Organization Facing Energy Transition

We are building low carbon businesses, fostering collaboration across sub-holdings



Pertamina's Focusing Business Model to face energy transition

- The development of business capabilities** that were previously **mixed** between one business and another, has become more **focused** through **centers of excellence** in each subholding.
- R&D**, we are actively advancing research and development (R&D) to facilitate the nation's energy transition. R&D towards energy transitions are led by RTI Team
- Partnerships & Funding**, which were previously **centralized**, have become **decentralized** so that there is more flexibility in partnerships and funding in each business group/subholding
- Capability Development & Career Structure Human Capital**, previously **linear** in a function or directorate, has become **more diverse** (managerial & expert/specialist track) between holding-subholding.

Leadership Program

“Building Ambidextrous Leaders for a Sustainable Future at Pertamina”

Ambidextrous Leadership

- Maximizing value from legacy business
- Expand existing and into adjacent businesses

**STRENGTHENING
LEGACY
BUSINESSES**



Petrochemical, Biofuel,
Geothermal, Hydrogen & Blue
Ammonia, CCS/CCUS, NBS,
EV & Battery

**BUILDING LOW-CARBON
BUSINESSES**

Panca Karsa Perwira

1

Bold

“I Lead with Courage”

2

Openness

“I Embrace New Ideas”

3

Accountable

“I Take Responsibility”

4

Adaptable

“I Adapt Quickly”

5

Empathy

“I Understand Others”



Pertamina Behavior Skill for Future
(PBEST)

Development Program Building Block



ENFORCE

“Fundamental Mandatory”

Objective

A core program to strengthen leadership skills and critical behaviors, empowering employees to excel in their roles and responsibilities

Participant

All Employees, Based on Career Levels at Pertamina

Programs

- VLDP (Visionary) → PRL > 24
- SLDP (Strategic) → PRL 22-24
- OLDP (Operational) → PRL 19-20
- PLDP (People) → PRL 16-18
- TLDP (Team) → PRL 14-15
- ELDP (Early) → PRL 12-13
- EWA (Effective Working Attitude) → PRL < 12



ENHANCE

“Acceleration”

An accelerated program to prepare Pertamina's Top Talent for future leadership roles

Top Talent

- Catalyser Mastery → PRL 22-24
- Catalyser → PRL 19-21
- Traiblazer → PRL 16-18



ENRICH

“Complimentary & Gap Fulfilment”

Leadership development enrichment program tailored to individual development plans, designed to equip leaders with skills aligned with Pertamina's future needs and strategic goals

Based on Individual/Functional Development Plans

- CBDP (Competency-Based Dev. Program)
- Women Leader Empowerment
- Agile Leadership
- Diversity, Equity, Inclusion (DEI)
- Design Thinking
- Project Management
- Vision Speech
- Stakeholder Management
- Etc.

Leadership Program

Catalyser Program



Prepares future leaders for clean energy challenges.

Preparing talent pipeline & accelerating leadership skill for SVP & VP level successors

Focus: Energy Business, Innovation & Technology, and Global Enterprise.

Participants: Around 411 employees have participated in the Catalyser Program from 2018 to 2023

Trailblazer Leadership Program



Prepares future managerial level for clean energy challenges.

Preparing talent pipeline & accelerating leadership skill for Manager level successors

Focus: Building Networks, Operational Decision Making, Building Talent, Business Insights with embedded competencies of ESG & Safety

Participants: Around 1799 employees have participated in the Trailblazer Program from 2018 to 2024

Sustainability Academy



Provides a structured framework to develop the competencies needed to meet Pertamina's sustainability and ESG objectives.

- 1 Sustainability Transcendence Forum (STF)
- 2 Sustainability Champion Program (STAC)
- 3 Sustainability Accelerator Program (SNAP)
- 4 Sustainability Awareness Program (SUNRISE)

Leadership Program

ENERGI Series Program



Elevate to **IN**novate **Lead**ERS in **Refin**ING & **Petrochem**ical

ENERGI Coaching Objectives:

1. The program lasts for 4-6 months online/offline.
2. Fulfillment of PT KPI leadership competency gap at VP/GM level
 - Driving Innovation
 - Strategic Orientation
 - Global Business Savvy

Directorship Objectives:

1. The program lasts for 1 day online.
2. Improving the competence/insight of Leaders in supporting future R&P business.

FUEL Series Program



FUELing Leaders for The Future

Fuel Forum

1. In the classroom and consisting of 4-6 sessions.
2. Objectives: Addressing the leadership competency gap for PT Kilang Pertamina Internasional at the managerial level or equivalent.
 - Building organizational talent.
 - Gaining entrepreneurial insights.
 - Establishing a strategic direction.

Fuel Webinar

1. In an online webinar and consisting of 2-4 sessions.
2. Objectives: Enhancing the competencies/insights of leaders to support the future R&P business.

National Service Program



The National Service Training Program is an initiative organized by Pertamina in **collaboration with the Indonesian Army (TNI AD)**.

Objectives:

1. Increasing the Spirit of Nationalism.
2. Increasing insight and basic skills in defending the country.
3. Strengthening the role of workers to support business and the national economy.
4. Awareness of radicalism and intolerance.

Technical Program



Technical Competency

- Mandatory Competency
- General Competency
- Specific Competency

STRENGTHENING LEGACY BUSINESSES

BUILDING LOW-CARBON BUSINESSES

Competency Assessment



Competency GAP

Individual Competency Development (IDP)

1. Project Assignment
2. Coaching
3. Training
4. Self-Learning

70 : 20 : 10 Blended Development Program

Business/Function Learning Dialog

Specific Development Program (Corporate Function Academy)

1. Digital Academy
2. Sustainability Academy
3. NRE Academy
4. Finance Academy
5. Legal Academy
6. Risk Management Academy
7. Chief Finance Officer Academy

Technical Program

New Renewable Energy [NRE] Academy

34 Multi skill group Participant for NRE Academy

Modul consist of:

- Project Exposure
- Job Assignment
- Skill Briefing
- Coaching
- Expert Mentoring / Immersion
- Networking Assignment

NRE Champion

2705 Training Program Participants

Providing basic understanding and knowledge of the 11 streams

- Geothermal
- Hydro Power
- CCUS
- Wind
- Waste to Energy
- Green Fuel
- Solar
- Hydrogen
- EV Battery
- Carbon Market

On The Job Development / Experiential Learning

1 Year



1 (one) year Talent Development program for developing the EV battery manufacturing business with PT Toyota Motor Manufacturing Indonesia

- Manufacturing Operation
- Knowledge Battery, Cell Manufacturing, Pack Manufacturing, EV Manufacturing

Sustainability Champion Academy in Commercial & Trading

Develop the competencies needed to meet sustainability and ESG objectives, specifically in Commercial & Trading

- Green Business Development
- Sustainability Operation
- Green Innovation & Product Development

NRE Coaching & Webinars



NRE knowledge sharing through Leader Forum and POLS (Pertamina Online Learning & Sharing) with numerous expert speakers

On The Job Development / Experiential Learning

6 Month



6 (six) month Talent Development program for developing business with Totsa

Knowledge transfer/capability building of PT KPI workers includes aspects of crude sourcing, logistics, refinery optimization, trading, market risk management (hedging) which will be carried out, among others, through: online, webinars, etc.

Technical Program to Develop Global Talent in the Energy Transition (7/8)

Technical Program

PETROCHEMICAL ACADEMY

INTERNATIONAL MASTERCLASS & NETWORKING PROGRAM

REFINERY OF THE FUTURE

PETROCHEMICALS, BIOFUEL & BLUE AMMONIA

THE STONES HOTEL, BALI | 10-14 SEPTEMBER

1 CHEMICALS MARKET & PETROCHEMICALS BUSINESS EXPANSION

WEDNESDAY, 10 SEPTEMBER 08.00 - 17.00 BALI TIME

Topics and intended personal level of expertise: + International expansion of Petrochemicals + Application of Petrochemicals + Market Expansion in Petrochemicals

2 BIOFUEL MARKET & BUSINESS DEVELOPMENT

THURSDAY, 11 SEPTEMBER 08.00 - 12.00 BALI TIME

Market and Regional Demand Forecast 2024 + Market Development Potential of Biofuels + Strengthening Regional Green Energy + Market for Sustainable Aviation Fuel (SAF)

3 BLUE AMMONIA & CCS: TECHNOLOGY, MARKET & REGULATORY LANDSCAPE

THURSDAY, 11 SEPTEMBER 13.00 - 17.00 BALI TIME

The Future of Ammonia & CCS: Technology, Market & Regulatory Landscape + Ammonia & CCS: Market & Regulatory Landscape + Regulatory Landscape

INVESTMENT FEE: IDR 11,000,000

HUMAN CAPITAL

REFINERY OF THE FUTURE
Petrochemicals, Biofuel, & Blue Amonia

1. Chemicals Market & Petrochemicals business Expansion
2. Biofuel Market & Business Development
3. Blue Amonia & CCS: Technology, market & Regulatory Landscape

PCU Digital Learning 2024

The Digital Learning Program 2024 aims to create globally competitive talent by leveraging Artificial Intelligence (AI) technology.



15.000 user accounts.
As a fulfillment of the development program according to the competency gap in the IDP Program.
Participants are Holding & Subholding Workers.



ELSA

AI-based learning that is personal using ELSA Apps (300 Users).
Blended Learning; a combination of AI-based learning with virtual classes with native speakers & specific curriculum tailored to needs (500 Users).
Participants are Level Up Holding & Managers.



User accounts for 300 participants.
AI based that focuses on providing dynamic and data-based Technology and Science curriculum.
Participants are Holding & SH Workers.

Mini Master of Laws



Develop competencies in the legal field, especially in legal politics, human rights, comparative law and business competition, commercial contracts, investment, capital markets, etc.



Merger & Acquisition Competency Development

The Merger & Acquisition Training develop an in-depth exploration of the entire M&A cycle—from strategy development to post-transaction integration.

Accounting & Financial Management for HC Managers – Pertamina & Faculty of Economics and Business (FEB) UGM

Five days of intensive training to equip HC Managers with basic knowledge and skills related to finance, which will help in decision-making processes, understanding financial statements, and contributing effectively to the financial success of the company.

Program Stages:

- Training
- Mentoring
- Presentation

Talent Development Framework to Support Pertamina's Dual Growth (8/8)



Strengthening Programs to Support the Energy Transition

Formal Education [scholarship]

200

Master and Doctoral Overseas Education Scholarship focusing in New & Renewable Expertise

Cooperation in Education



Cooperation between University of Pertamina & Kyushu University, to develop talent in Research, Technology & Innovation in New Renewable

HIRING EXPERT



- Catalyst, PVC producer including backward integration in PVC Compounds, PVC Pipes
- Global key account
- Commercialization

PERTIWI

PERTIWI Journey

2021 For the past 4 years PERTIWI has been delivering impact in promoting gender equality to support business sustainability. 2024

PERTIWI was established in April 2021

Coaching & Mentoring

146 Coach, 841 Coachee

PERTIWI continued the coaching program and successfully engaged participation significantly

PsyCARE

PERTIWI rolls out the PsyCARE initiative to bolster employee well-being.

39 Counselors, >250 Counseling Sessions

21% (Male), 79% (Female)

PERTIWI Menginspirasi

Running since 2021, the PERTIWI Menginspirasi series tackles a new and compelling theme every year.

Respectful Workplace Policy

Support the implementation of RWP in Pertamina and advocate RWP to be adopted in BUMN.

Women LEAP

One of PERTIWI's flagship program that help women employees accelerated to leadership position

38 Promoted to leadership position

Employee Wellbeing Policy

5 Dimension of Wellbeing:

- Physical Fitness
- Mental & Intellectual
- Social & Environment
- Occupational
- Financial

PERTIWI Coaching

Program Goals

- 1 Improve **leadership** competencies of women employees
- 2 Build women employees' **confidence** to lead
- 3 Help **self-development** plans preparation

Leadership Skill Developed

- Building Network
- Influencing
- Driving Execution
- Leading Innovation
- Building Talent
- Customer Orientation
- Strategic Thinking
- Business Acumen
- Facilitating Change

2 Batches, 146 Coaches, 841 Coachees

56% (Male), 44% (Female)

Dokumentasi Kick-off & upskilling Coach

Sangat Tidak Puas 1 — 4,25 — Sangat Puas 5

93% Merekomendasikan Program Coaching & Mentoring PERTIWI untuk diikuti oleh rekan pekerja yang lain

Thank You!

