



Ministry of Energy and Mineral Resources
Republic of Indonesia



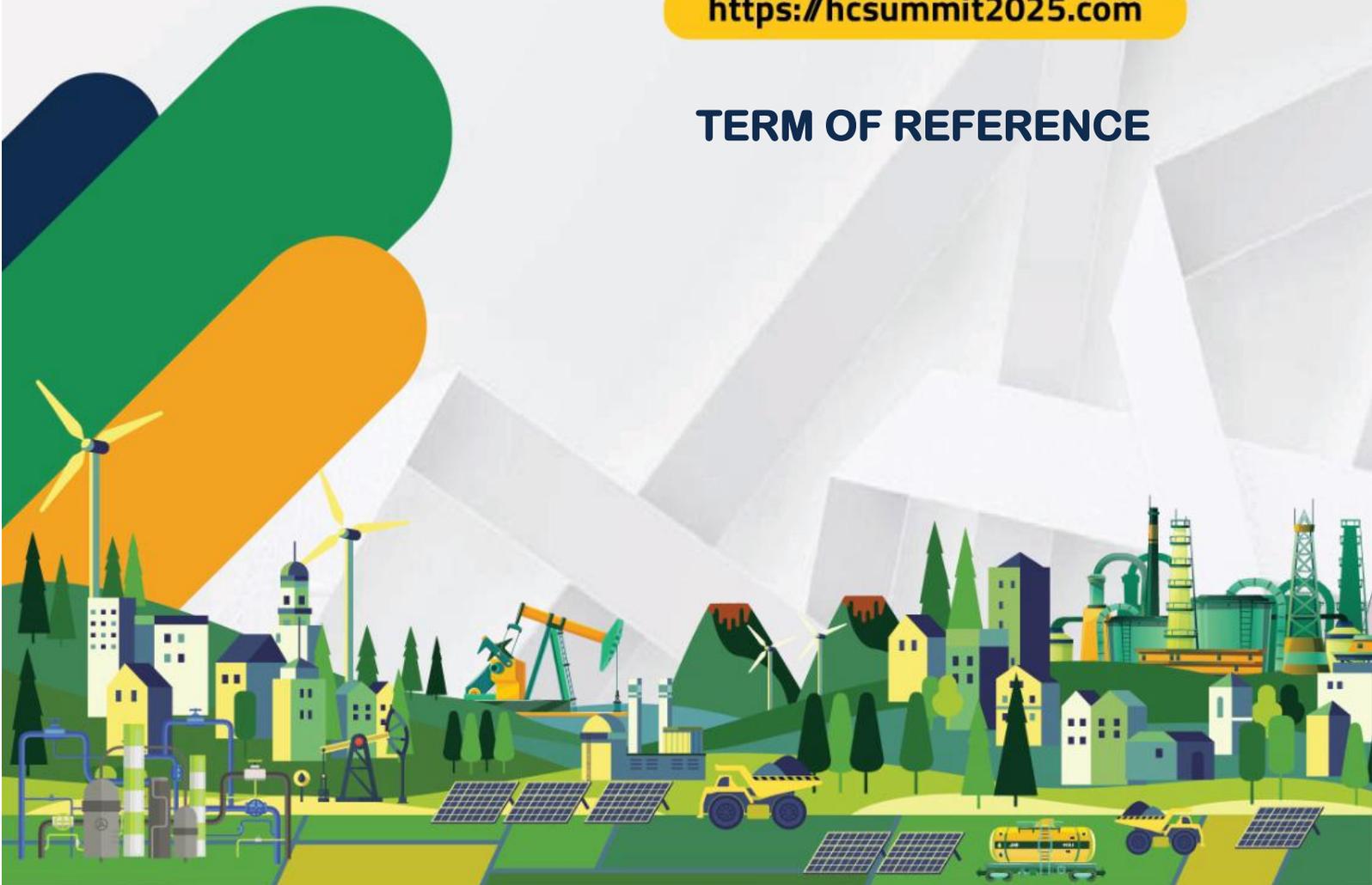
Human Capital Summit 2025

*Accelerating the Workforce Transformation for Downstream Growth
and Energy Security towards Energy Transition in Indonesia*

3 - 4 June, 2025
Jakarta International Convention Center

<https://hcs Summit2025.com>

TERM OF REFERENCE





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HUMAN CAPITAL SUMMIT 2025

**Accelerating the Workforce Transformation
for Downstream Growth and Energy Security
towards Energy Transition in Indonesia**
Jakarta, June 3-4, 2025

I. BACKGROUND

The **Ministry of Energy and Mineral Resources (MEMR)** is actively working to implement Indonesia's energy transition plan by organizing strategic programs aimed at **reducing carbon emissions and accelerating the energy transition, in line with the Net Zero Emissions (NZE) Roadmap for 2060.**

To support the achievement of NZE by 2060, the **Human Resources Development Agency of Energy and Mineral Resources (HRDA EMR)** initiated the program to develop qualified and competent human resources in the energy transition. It was **the Human Capital Summit, held on March 21, 2023,** in Jakarta, themed "Human Capital Development towards Net Zero Emission 2060". The gathered respective stakeholders from across Indonesia's energy sector and resulted in a declaration of commitment, including the facilitation of internship programs for State Civil Apparatus within the MEMR to **identify future workers and their capacity-building needs.**

In addition to ensure the successful workforce transformation, the establishment of supportive policies is essential. In this regard, HRDA EMR is organizing the **2nd Human Capital Summit,** themed "Accelerating the Workforce Transformation for Downstream Growth and Energy Security towards Energy Transition in Indonesia," which will take place on **June 3–4, 2025.**

This upcoming summit is being preceded by a series of preparatory events, including a **program launch in September 2024,** followed by **Seminars, Focus Group Discussions (FGDs), and the formulation of a policy framework from September 2024 to March 2025,** involving over **1,500 participants.** These side events facilitated data and idea sharing among government, institutions, industries, associations, and academia, with the goal of identifying **key challenges and barriers** that need to be addressed to achieve NZE by 2060, particularly in preparing **skilled workforce for downstream growth and energy security in energy and mineral resources sectors.**





The side events covered a wide range of themes related to **technology and human capital** in support of NZE target. **Topics discussed** including Carbon Capture and Storage/Carbon Capture, Utilization, and Storage (CCS/CCUS); Oil and Gas Production; Refinery Processing; Industrial Petrochemicals; Occupational Safety; Environmental Protection; Information Technology; Computing, Modeling, and Artificial Intelligence; Supply Chain; Logistics Technology; Rare Earth Exploration, Processing and Utilization of Rare Earth Metals in Indonesia; Monazite Industry; Utilization of Reclamation Plants for Biofuel; Mining Management Policy; Green Mining and Decarbonization Mining; Reclamation and Post-Mining; Project Investment; Electricity Infrastructure; Co-firing Policy; Readiness of Higher Education and Research; Readiness of Vocational Education Institutions; Outcome-Based Curriculum aligned with NZE; Training; Competence; Certification; and Green Job Occupation; Leadership; Role of Pertamina and PLN in supporting NZE; Human Capital Management; Employment to Inclusive Energy Transition; and Women's Empowerment in Energy Transition.

The results of these side events finally come up for **recommendations to jointly commit to resolving challenge that require support and commitments** between government institutions, industries, associations, and universities. The recommendations include:

1. Establishing carbon storage permit policy;
2. Developing strategic mineral, green mining and decarbonization mining implementation policy;
3. Advancing green metal industry creating ex-mining land use policy for biofuel;
4. Supporting CCS/CCUS project development and human resources development for CCS/CCUS engineers;
5. Expanding education on new and renewable energy;
6. Providing scholarships, training and certification;
7. Conducting and promoting geothermal research;
8. Enhancing monazite processing project for nuclear energy;
9. Supporting metal recycling;
10. Implementing industrial internships and vocational education.

The Human Capital Summit 2025 is projected to be a premier event that plays a pivotal role in accelerating the transformation of the workforce in support of Indonesia's downstream growth and energy security towards energy transition. It stands as a vital platform that is expected to make a substantial impact in **driving the development of human capital, a key pillar in the nation's energy transition journey.**





As the world moves toward a low-carbon future, the summit will serve as a catalyst for **aligning human capital strategies with sustainable energy goals**. By bringing together **key stakeholders** from government institutions, industries, academia, associations; the summit aims to foster strategic collaboration, share best practices, and develop innovative solutions to prepare the workforce for emerging opportunities. The event will **highlight the urgent need to reskill and upskill the workforce**, ensuring that Indonesia is not only equipped with **competent human capital** in achieving energy transition, but also paves the way for **long-term national sustainability and economic growth**.

II. OBJECTIVE

The main objective of the 2nd Human Capital Summit (HCS2-2025) is to design and propose a comprehensive policy framework that supports the acceleration of green-collar workforce transformation in alignment with Indonesia's energy transition goals.

This primary objective is further supported by the following specific objectives:

1. **To map future jobs** in the energy sector and identify the human capital needs.
2. **To establish and strengthen partnerships among key stakeholders** - government, institutions, industries, academia, associations, and civil society - to support green workforce development.
3. **To secure commitments from key stakeholders** for concrete actions that will advance the workforce development.

III. OUTPUT

The expected outputs of the Human Capital Summit 2025 are:

1. **Policy document** on human capital development in the framework of energy transition towards NZE 2060.
2. **Jobs occupation map** in the energy and mineral resources sector supporting energy transition.
3. **Analysis of human capital development** to support the energy transition in Indonesia, especially related to the quantification of **workforce needs**
4. **Declaration and signing partnership commitment on human capital development for energy security and downstream industry.**





IV. PARTICIPANT

The Human Capital Summit 2025 is expected to welcome approximately **1,630 participants** in the panel discussions and around **2,000 visitors** to the exhibition area.

Invitations for attendance will be extended to all relevant stakeholders from both government and non-government sectors, including:

1. Ministries and Central Government Institutions
2. Provincial and City/Regency Governments
3. Industry/Business Entities
4. Associations
5. Academia and Universities
6. Vocational Training and Education Institutions
7. Development Partners

V. DATE AND VENUE

Human Capital Summit 2025 is commitment to advancing human capital development that will bring together various stakeholders to explore the latest trends and best practices in the field. This event will be conducted on:

Day : Tuesday – Wednesday
Date : June 3-4, 2025
Time : 09.00 – 17.00 WIB
Location : Jakarta International Convention Center (JICC)
Jalan Gatot Subroto Kav. 19 Jakarta Pusat





VI. EVENT AGENDA

TIME	DESCRIPTION	REMARKS
DAY 1: JUNE 3, 2025		
08:00 – 10:00	Registration	Committee
10:00 – 10:10	Opening - Safety Induction - National Anthem “Indonesia Raya” - Traditional Dance - Teaser HC Summit 2025	Master of Ceremony
10:10 – 10:25	HC Summit 2025 Insight	Prahero Nurtjahyo Head of HRD Agency of Energy and Mineral Resources - Ministry of Energy and Mineral Resources
10:25 – 10:27	Video Policy Document on Human Capital Development in the Framework of Energy Transition towards NZE 2060	
10:27 – 10:47	Navigating the Future: Strategic Direction and Policy for Investment in the Downstream Industry	Rosan Perkasa Roeslani Minister of Investment and Downstream Industry
10:47 – 11:07	Innovation Excellence in State-Owned Enterprises: Key for Securing Our Energy Future	Erick Thohir Minister of State-Owned Enterprises
11:07 – 11:14	Video Partnership Signing & Pre-Keynote Speech Video Minister of Energy Mineral Resources	
11:14 – 11:20	<i>Commitment Signing</i> Partnership Commitment on Human Capital Development for Energy Security and Downstream Industry	<ul style="list-style-type: none">• Minister of Energy and Mineral Resources• Head of HRD Agency of ESDM• Partners (21 Institution)
11:20 – 11:40	<i>Keynote Speech</i> Driving Energy Security and Downstream Growth: Commitment in Action	Bahlil Lahadalia Minister of Energy and Mineral Resources Minister of Energy and Mineral Resources





11:40 – 11:43	Opening Ceremony HCS 2025 Invite: Minister of Investment and Downstream Industry & Minister StateOwned Enterprise	<ul style="list-style-type: none">• Bahlil Lahadalia Minister of Energy and Mineral Resources• Rosan Perkasa Roeslani Minister of Investment and Downstream Industry• Erick Thohir Minister State-Owned Enterprises
11:43 – 11:50	<i>Penyerahan Dokumen</i> Policy Document on Human Capital Development in the Framework of Energy Transition towards NZE 2060	Bahlil Lahadalia Minister of Energy and Mineral Resources and Stakeholders
11:50 – 12:00	Bridging to Next Agenda	Master of Ceremony





Parallel Session		
Panel 1 – Transformation of Mining Industry Towards NZE Era		
13:30 – 13:45	Unlocking Strategic Mineral Potentials for the Net Zero Emission Era	Head of Geology Agency - Ministry of Energy and Mineral Resources
13:45 – 14:00	Shaping the Future of Mineral and Coal: Policy Framework for Decarbonization and Green Mining Practices	Director General of Mineral and Coal - Ministry of Energy and Mineral Resources
14:00 – 14:15	Paving the Path for Sustainability: Policy Framework for the Downstream Mineral and Coal Industry	Director General of Metal, Machinery, Transportation Equipment, and Electronics Industries - Ministry of Industry
14:15 – 14:30	Innovating the Green Metal Industry: Technology and Human Capital as Pillars of Sustainability	President Director of MIND ID
14:30 – 15:30	Question and Answer Session	Moderator and Presenters of Panel 1
Parallel Session		
Panel 2 – Transformation of Oil and Gas Industry Towards NZE Era		
13:30 – 13:45	Transforming Oil and Gas Regulations in the Energy Transition: Strengthening National Human Capital for a Low-Carbon Future	Director General of Oil and Gas - Ministry of Energy and Mineral Resources
13:45 – 14:00	Decarbonizing Upstream Energy: Strategic Talent Development and Technological Advances in Oil and Gas Subsector	Head of Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas)
14:00 – 14:15	Strategic Transformation of Fuel and Natural Gas Distribution through Technology and Talent for Net Zero Emissions 2060	Head of Downstream Oil and Gas Regulatory Agency - Ministry of Energy and Mineral Resources
14:15 – 14:30	Pertamina's Path to Net Zero Emissions 2060: Leading the Transition with Strategic Initiatives of Human Capital and Technology	Chairman of PT Pertamina (Persero)
14:30 – 15:30	Question and Answer Session	Moderator and Presenters of Panel 2





DAY 2 : JUNE 4, 2025		
09:00 – 09:05	Opening	Master of Ceremony
09:05 – 09:20	<i>Keynote Speech</i> Enhancing Growth in the Energy and Mining Industry: Strategic Policy for Human Capital Development	Ministry of Manpower
09:20 – 09:35	<i>Supporting Speech</i> Purposeful Programs on Human Capital Development in Indonesia	Chairman and CEO of JOGMEC
09:35 – 09:50	Empowering Human Capital towards Energy Security and Downstream Industry	Head of HRD Agency of Energy and Mineral Resources - Ministry of Energy and Mineral Resources
09:50 – 10:05	Green Collar Workforce Roadmap: Building Sustainable Careers in Indonesia	Head of Manpower Planning and Development Agency - Ministry of Manpower
10:05 – 10:20	Curriculum Development for Renewable Energy: Advancing Skills through Vocational and Higher Education	Director General of Higher Education - Ministry of Higher Education, Science, and Technology
10:20 – 10:35	Mapping Occupation and Projecting Human Capital Needs in Energy Sector: A Strategic Step towards Net Zero Emissions 2060	Team Leader of GIZ-GESIT
10:35 – 11:30	Question and Answer Session	Moderator and all Presenters
11:30 – 12:00	Bridging to Next Agenda	Master of Ceremony





Parallel Session		
Panel 1 – Transformation of Electricity, New and Renewable Energy Towards NZE Era		
13:30 – 13:50	Policies and Programs in the Electricity Subsector for Sustainable Energy and Net Zero Emissions 2060	Director General of Electricity - Ministry of Energy and Mineral Resources
13:50 – 14:10	Policies and Programs for Sustainable Energy in the NREEC Subsector: Driving the Transition to Net Zero Emissions 2060	Director General of New, Renewable Energy and Energy Conservation (NREEC) - Ministry of Energy and Mineral Resources
14:10 – 14:30	Providing Path to Net Zero Emissions 2060: Infrastructure and Technology Planning and Implementation for Sustainable Energy	Chairman of PT PLN (Persero)
14:30 – 14:50	Accelerating Green Workforce: Specialized Workforce Development to Support Energy Transition in Indonesia (SWIFT) - Human Resources Planning for NREEC Towards Net Zero Emissions 2060	SWIFT Team of ETP-UNOPS
14:50 – 15:30	Question and Answer Session	Moderator and all Presenters of Panel 1
Parallel Session		
Panel 2 – Oil and Gas Vocational Session		
Strengthening Vocational Education for Skilled Workforce towards NZE Era		
13:30 – 13:45	Supporting Energy Security in Indonesia: Strategy on Vocational Education	Director of PEM Akamigas - Ministry of Energy and Mineral Resources
13:45 – 14:00	Bridging the Gap with Industry-Oriented Approaches: Improving Graduate Competency and Vocational Education Institution	SLB Indonesia
14:00 – 14:15	Technology Readiness for Vocational Excellence: Linking Innovation and Education	Chairman of IATMI (<i>Ikatan Ahli Teknik Perminyakan Indonesia</i>)





14:15 – 14:30	Polytechnic Pathways: Strategy for Elevating Future Vocational Education	SECO-Swiss (State Secretariat for Economic Affairs)
14:30 – 15:30	Question and Answer Session	Moderator and all Presenters of Panel 2
Parallel Session Panel 3 – Mining and Energy Vocational Session Strengthening Vocational Education for Skilled Workforce towards NZE Era		
13:30 – 13:45	Setting Up Skilled Workforce for Indonesia's Downstream Mineral and Coal Industry: Vocational Education Strategy	Director of PEP Bandung - Ministry of Energy and Mineral Resources
13:45 – 14:00	From Knowledge to Practice: Upskilling Human Capital Competency in Mineral Technology	CNGR Advanced Material Co. Ltd.
14:00 – 14:15	Strong Foundation for the Downstream Green Metal Industry: Developing Human Capital	Head of HRD Agency of Industry - Ministry of Industry
14:15 – 14:30	Unlocking Potentials: Optimization of Resources, Technology, and Human Capital	Ministry of Foreign Affairs and Trade of New Zealand
14:30 – 14:45	Mining Future: Empowering Communities Through Vocational Education	PT. Bayan Resources
14:45 – 15:30	Question and Answer Session	Moderator and all Presenters of Panel 3





VII. BOOTH SESSION

TIME	DESCRIPTION	REMARKS
DAY 1 : JUNE 3, 2025		
Booth Session 1		
11:45 – 11:50	Music Performance	Master of Ceremony
11:45– 11:50	Opening	Master of Ceremony
11:50 – 12:30	<i>Talk Show 1</i> Developing Competency in the Oil and Gas Industry: Training and Certification for a Sustainable Future	Human Resources Development Center on Oil and Gas - Ministry of Energy and Mineral Resources
12:30 – 12:50	Music Performance	Master of Ceremony
12:50 – 13:30	<i>Talk Show 2</i> Developing Competency in the Oil and Gas Industry: Training and Certification for a Sustainable Future	Human Resources Development Center on Mineral and Coal - Ministry of Energy and Mineral Resources
Booth Session 2		
15:30 – 15:35	Music Performance	Master of Ceremony
15:35 – 15:40	Opening	Master of Ceremony
15:40 – 16:10	<i>Talk Show 1</i> Our Energy, Our Future: Strengthening Technology and Human Capital for Sustainable Energy	PT Pertamina (Persero)
16:10 – 16:30	Music Performance	Master of Ceremony
16:30 – 17:00	<i>Talk Show 2</i> Our Energy, Our Future: Strengthening Technology and Human Capital for Sustainable Energy	MIND ID





DAY 2 : JUNE 4, 2025		
Booth Session 1		
11:00 – 11:05	Music Performance	Master of Ceremony
11:05 – 11:10	Opening	Master of Ceremony
11:10 – 12:10	<i>Talk Show 1</i> Developing Competency in the Electricity, New and Renewable Energy, and Energy Conservation Industry: Training and Certification for a Sustainable Future	Human Resources Development Center on Electricity, New and Renewable Energy, and Energy Conservation - Ministry of Energy and Mineral Resources
12:10 – 12:30	Music Performance	Master of Ceremony
12:30 – 13:30	<i>Talk Show 2</i> Developing Competency of Government Employees: Training and Certification for a Sustainable Future	Human Resources Development Center for Apparatus - Ministry of Energy and Mineral Resources
Booth Session 2		
15:30 – 15:35	Music Performance	Master of Ceremony
15:35 – 15:40	Opening	Master of Ceremony
15:40 – 16:10	<i>Talk Show 1</i> Our Energy, Our Future: Strengthening Technology and Human Capital for Sustainable Energy	PT PLN (Persero)
16:10 – 16:30	Music Performance	Master of Ceremony
16:30 – 17:00	<i>Talk Show 2</i> Our Energy, Our Future: Strengthening Technology and Human Capital for Sustainable Energy	TBC





VIII. KEY POINTS FOR PRESENTERS

PART	TOPIC	PRESENTERS
DAY 1 : JUNE 3, 2025		
Report	HC Summit 2025 Insight <ul style="list-style-type: none">Preparation report including background, objectives, outputs, side events	Head of HRD Agency of Energy and Mineral Resources - Ministry of Energy and Mineral Resources
Speech 1	Navigating the Future: Strategic Direction and Policy for Investment in the Downstream Industry <ul style="list-style-type: none">Policy on investment, industrialization, downstream, and human capital preparednessThe latest regulations in the fields of investment and downstream processing, and their impact on the energy and industrial sectorsStrategies for implementing downstream, and ensuring the readiness of a competent workforce	Minister of Investment and Downstream Industry
Speech 2	Innovation Excellence in State-Owned Enterprises: Key for Securing Our Energy Future <ul style="list-style-type: none">Policies on innovation in strategic businesses of state-owned enterprises to support energy security, downstream, and human capital preparednessThe latest regulations from the ministry of state-owned enterprises and their impact on the energy and industrial sectors.Strategies for implementing downstream and ensuring the readiness of a competent workforce	Minister State-Owned Enterprises
<i>Commitment Signing</i>	<i>Commitment Signing</i> Partnership Commitment on Human Capital Development for Energy Security and Downstream Industry	Committed Partners





<i>Keynote Speech</i>	Driving Energy Security and Downstream Growth: Commitment in Action <ul style="list-style-type: none">• Government policies on energy transition towards NZE, energy security, and downstream growth• EMR's strategies towards energy transition, energy security, and downstream development	Minister of Energy and Mineral Resources
<i>Official Launch</i>	Policy Document on Human Capital Development in the Framework of Energy Transition towards NZE 2060	Minister of Energy and Mineral Resources and Stakeholders
Parallel Session Panel 1 – Transformation of Mining Industry Towards NZE Era		
Panel Session	Facilitating presentations, discussions and addressing inquiries related to policies, technologies, human capital requirements, and projects in the areas of decarbonization and green mining	Moderator
	#1. Unlocking Strategic Mineral Potentials for the Net Zero Emission Era <ul style="list-style-type: none">• The latest regulations in the fields of exploration of critical and strategic minerals, value-added development, downstreaming of mineral and coal, metal industrialization, and decarbonization• Government's strategies to accelerate the transformation of the metal industry through critical and strategic mineral exploration in achieving NZE 2060• Concrete steps to ensure the workforce in critical and strategic mineral exploration is prepared to face the energy transition	Head of Geology Agency - Ministry of Energy and Mineral Resources





	<p>#2. Shaping the Future of Mineral and Coal: Policy Framework for Decarbonization and Green Mining Practices</p> <ul style="list-style-type: none">• Policies on decarbonization, green mining, low-carbon mining, value-added mineral and coal development.• The latest regulations in the mineral and coal sector and their impact on the energy and industrial sectors• Key challenges encountered by the mineral and coal mining subsector in implementing low-carbon practices and strategies to overcome the challenges• Contribution of mineral downstreaming policies to the energy transition in Indonesia	<p>Director General of Mineral and Coal - Ministry of Energy and Mineral Resources</p>
	<p>#3. Paving the Path for Sustainability: Policy Framework for the Downstream Mineral and Coal Industry</p> <ul style="list-style-type: none">• The latest regulations in the areas of value-added development, downstreaming of mineral and coal, metal industrialization, and decarbonization• Contribution of policies on value-added enhancement, mineral and coal downstreaming, metal industrialization, and decarbonization to the energy transition in Indonesia• Concrete steps to ensure that the workforce in the metal industry is ready for the energy transition	<p>Director General of Metal, Machinery, Transportation Equipment, and Electronics Industries - Ministry of Industry</p>





	<p>#4. Innovating the Green Metal Industry: Technology and Human Capital as Pillars of Sustainability</p> <ul style="list-style-type: none">• MIND ID's strategies to accelerate the transformation of the metal industry through value-added enhancement, downstreaming of mineral and coal, metal industrialization towards NZE 2060• Main challenges faced by MIND ID in adopting low-carbon practices, and how the challenges can be addressed.• Challenges in the availability of competent workforce in the fields of critical and strategic mineral exploration, value-added enhancement, downstreaming of mineral and coal, metal industrialization, and decarbonization that support energy sustainability and accelerate downstreaming.	<p>President Director of MIND ID</p>
	<p>Question and Answer Session</p> <ul style="list-style-type: none">• Discussions and addressing inquiries related to policies, technologies, human capital requirements, and projects in the areas of decarbonization and green mining	<p>Moderator and Presenters of Panel 1</p>





Parallel Session		
Panel 2 – Transformation of Oil and Gas Industry Towards NZE Era		
Panel Session	Facilitating presentations, discussions and addressing inquiries related to policies, technologies, human capital requirements, and projects in the areas of low-carbon industry and energy transition	Moderator
	#1. Transforming Oil and Gas Regulations in the Energy Transition: Strengthening National Human Capital for a Low-Carbon Future <ul style="list-style-type: none">• Government regulations regarding energy transition and the NZE 2060 target.• The impact of regulations on the transformation of the oil and gas industry and the achievement of decarbonization targets• Government's approaches in encouraging the technology adoption, including incentives, international cooperation, and the development of supporting infrastructure	Director General of Oil and Gas - Ministry of Energy and Mineral Resources
	#2. Decarbonizing Upstream Energy: Strategic Talent Development and Technological Advances in Oil and Gas Subsector <ul style="list-style-type: none">• Opportunities and challenges of energy transition for upstream oil and gas business• Oil and gas upstream decarbonization roadmap towards NZE 2060• Reskilling/upskilling programs for upstream oil and gas human capital	Head of Special Task Force for Upstream Oil and Gas Business Activities (SKK Migas)





	<p>#3. Strategic Transformation of Fuel and Natural Gas Distribution through Technology and Talent for Net Zero Emissions 2060</p> <ul style="list-style-type: none">• Opportunities and challenges of energy transition for downstream oil and gas business• Development of fuel and natural gas distribution in Indonesia• Reskilling/upskilling programs for downstream oil and gas human capital	<p>Head of Downstream Oil and Gas Regulatory Agency - Ministry of Energy and Mineral Resources</p>
	<p>#4. Pertamina's Path to Net Zero Emissions 2060: Leading the Transition with Strategic Initiatives of Human Capital and Technology</p> <ul style="list-style-type: none">• Pertamina's strategies including low-carbon business map: gas, new and renewable energy, energy efficiency, digitalization• Decarbonization strategies and the implementation of low-carbon technologies• Reskilling/upskilling programs for human capital	<p>Chairman of PT Pertamina (Persero)</p>
	<p>Question and Answer Session</p> <ul style="list-style-type: none">• Discussions and addressing inquiries related to policies, technologies, human capital requirements, and projects in the areas of low-carbon industry and energy transition	<p>Moderator and Presenters of Panel 2</p>





DAY 2 : JUNE 4, 2025		
<i>Keynote Speech</i>	Enhancing Growth in the Energy and Mining Industry: Strategic Policy for Human Capital Development <ul style="list-style-type: none">• Government's policies and regulations on human capital development for enhancing growth in the energy and mining industry• Preparation strategies of the workforce to face the growth of the energy and mineral industry	Ministry of Manpower
<i>Supporting Speech</i>	Purposeful Programs on Human Capital Development in Indonesia <ul style="list-style-type: none">• Technologies required and currently being developed for value-added enhancement, downstreaming, mineral and coal industrialization towards NZE 2060• Contribution of JOGMEC's expertise to develop human capital	Chairman and CEO of JOGMEC
Panel Session	#1. Empowering Human Capital towards Energy Security and Downstream Industry <ul style="list-style-type: none">• Government's policies on industrialization and downstream, and human capital readiness• The latest regulations and their impact on preparing a competent workforce for the energy sector• Efforts to prepare competent human capital for the energy transition and downstream industry development for energy security and sustainability	Head of HRD Agency of Energy and Mineral Resources - Ministry of Energy and Mineral Resources
	#2. Green Collar Workforce Roadmap: Building Sustainable Careers in Indonesia <ul style="list-style-type: none">• Human capital requirements and future occupations in relation to NZE 2060 trends• Strategies in building sustainable career	Head of Manpower Planning and Development Agency - Ministry of Manpower





	<p>#3. Curriculum Development for Renewable Energy: Advancing Skills through Vocational and Higher Education</p> <ul style="list-style-type: none"> • Curriculum development for renewable energy in higher education • Preparation of competent human resources to support NZE through vocational education and higher education 	<p>Director General of Higher Education - Ministry of Higher Education, Science, and Technology</p>
	<p>#4. Mapping Occupation and Projecting Human Capital Needs in Energy Sector: A Strategic Step towards Net Zero Emissions 2060</p> <ul style="list-style-type: none"> • Human capital requirements and future occupations on energy sector 	<p>Team Leader of GIZ-GESIT</p>
	<p>Question and Answer Session</p> <ul style="list-style-type: none"> • Discussions and addressing inquiries related to policies, human capital requirements, and future occupations in towards NZE 2026 	<p>Moderator and all Presenters</p>
<p>Parallel Session</p> <p>Panel 1 – Transformation of Electricity, New and Renewable Energy Towards NZE Era</p>		
<p>Panel Session</p>	<p>Facilitating presentations, discussions and addressing inquiries related to policies, technologies, human capital requirements, and projects in the areas of electricity, new and renewable energy</p>	<p>Moderator</p>
	<p>#1. Policies and Programs in the Electricity Subsector for Sustainable Energy and Net Zero Emissions 2060</p> <ul style="list-style-type: none"> • Government's strategies to accelerate the transformation of the electricity sub-sector industry towards NZE. • Mechanism of incentives and regulations to encourage green investments in the electricity sub-sector 	<p>Director General of Electricity - Ministry of Energy and Mineral Resources</p>





	<p>#2. Policies and Programs for Sustainable Energy in the NREEC Subsector: Driving the Transition to Net Zero Emissions 2060</p> <ul style="list-style-type: none">• Government's strategies to accelerate the transformation of the NREEC sub-sector industry towards NZE.• Mechanism of incentives and regulations to encourage green investments in the NREEC sub-sector	Director General of New, Renewable Energy and Energy Conservation (NREEC) - Ministry of Energy and Mineral Resources
	<p>#3. Providing Path to Net Zero Emissions 2060: Infrastructure and Technology Planning and Implementation for Sustainable Energy</p> <ul style="list-style-type: none">• Preparation of infrastructure, technology, and human capital for the energy transition• Preparation of human capital on electricity, new and renewable energy, and energy conservation sub-sector towards NZE 2060	Chairman of PT PLN (Persero)
	<p>#4. Accelerating Green Workforce: Specialized Workforce Development to Support Energy Transition in Indonesia (SWIFT) - Human Resources Planning for NREEC Towards Net Zero Emissions 2060</p> <ul style="list-style-type: none">• Best strategy to enhance community engagement in the adoption of renewable energy and energy conservation	SWIFT Team of ETP-UNOPS
	<p>Question and Answer Session</p> <ul style="list-style-type: none">• Discussions and addressing inquiries related to policies, technologies, human capital requirements, and projects in the areas of electricity, new and renewable energy	Moderator and all Presenters of Panel 1





Parallel Session		
Panel 2 – Oil and Gas Vocational Session		
Strengthening Vocational Education for Skilled Workforce towards NZE Era		
Panel Session	Facilitating presentations, discussions and addressing inquiries related to readiness and improvement of vocational education capacity on oil and gas sub-sector in preparing human capital towards NZE 2060	Moderator
	#1. Supporting Energy Security in Indonesia: Strategy on Vocational Education <ul style="list-style-type: none">Strategies prepared by vocational education to develop competent human capital, including transformation of vocational curriculum, collaboration, research and development, and facilities	Director of PEM Akamigas - Ministry of Energy and Mineral Resources
	#2. Bridging the Gap with Industry-Oriented Approaches: Improving Graduate Competency and Vocational Education Institution <ul style="list-style-type: none">Preparing vocational education graduates according to industry needsStrategy of link and match between industry and vocational education	SLB Indonesia
	#3. Technology Readiness for Vocational Excellence: Linking Innovation and Education <ul style="list-style-type: none">Criteria for human resources required by the industryStrategies for developing vocational education through graduates/alumni collaboration	Chairman of IATMI (<i>Ikatan Ahli Teknik Perminyakan Indonesia</i>)





	#4. Polytechnic Pathways: Strategy for Elevating Future Vocational Education <ul style="list-style-type: none">• Strategies for developing vocational education institutions towards NZE• Innovations aligned with regulations and policies	SECO-Swiss (State Secretariat for Economic Affairs)
	Question and Answer Session <ul style="list-style-type: none">• Discussions and addressing inquiries related to readiness and improvement of vocational education capacity on oil and gas sub-sector in preparing human capital towards NZE 2060	Moderator and all Presenters of Panel 2
Panel 3 – Mining and Energy Vocational Session Strengthening Vocational Education for Skilled Workforce towards NZE Era		
Panel Session	Facilitating presentations, discussions and addressing inquiries related to readiness and improvement of vocational education capacity on mining and energy in preparing human capital towards NZE 2060	Moderator
	#1. Setting Up Skilled Workforce for Indonesia’s Downstream Mineral and Coal Industry: Vocational Education Strategy <ul style="list-style-type: none">• Main challenges in adopting low-carbon practices, and how to overcome the challenges• Strategy prepared by vocational education to develop competent human capital	Director of PEP Bandung - Ministry of Energy and Mineral Resources





	<p>#2. From Knowledge to Practice: Upskilling Human Capital Competency in Mineral Technology</p> <ul style="list-style-type: none">• Strategy in developing human capital to support the mineral technology industry from knowledge capabilities to be practiced in the industry• The main challenges in adopting low-carbon practices and how they can be overcome• Role in the development of the industrial workforce to support the business• Concrete steps to ensure that the workforce in the fields of increasing added value, downstream, and mineral and mineral industrialization is ready to face the energy transition	CNGR Advanced Material Co. Ltd.
	<p>#3. Strong Foundation for the Downstream Green Metal Industry: Developing Human Capital</p> <ul style="list-style-type: none">• Human capital requirements for the downstream industry in Indonesia• Best strategy to develop human capital	Head of HRD Agency of Industry - Ministry of Industry
	<p>#4. Unlocking Potentials: Optimization of Resources, Technology, and Human Capital</p> <ul style="list-style-type: none">• Optimization of vocational education institution potentials including resources, technology and human capital• Strategic partnerships for unlocking potentials	Ministry of Foreign Affairs and Trade of New Zealand
	<p>#5. Mining Future: Empowering Communities Through Vocational Education</p> <ul style="list-style-type: none">• Strategic program on human capital development for mining community• PT Bayan's contribution in transforming communities through vocational higher education	PT Bayan Resources





	<p>Question and Answer Session</p> <p>Discussions and addressing inquiries related to readiness and improvement of vocational education capacity on mining and energy in preparing human capital towards NZE 2060</p>	<p>Moderator and all Presenters of Panel 3</p>
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