

ACADEMIC CORNER

OUR PUBLICATION

EVENT IN ENERGY SECTOR

SOCIAL INITIATIVES

UPCOMING EVENTS

MORE FROM US





Warm greetings from the Purnomo Yusgiantoro Center!

As we step into 2025, we reflect on the progress we made in 2024. Here are some of the highlights we're excited to share as we move forward into this new year.

A key highlight was the release of **PYC Kaleidoscope 2024**, a comprehensive report that outlined fourteen major energy events shaping the country's energy future. We also held the *United Movement for Strong Bones in Indonesia* campaign during National Osteoporosis Day. Through the Perwatusi Osteoporosis Exercise Festival and panel discussions with health experts, we raised awareness about the importance of bone health and strengthened our commitment to public health.

In September, we published a policy brief focused on improving electricity access in Indonesia's remote 3T regions, supporting the government's goal of reaching underserved communities.

We also took part in important forums such as the 53rd IAGI Annual Scientific Meeting, ASEAN Mining Conference 2024, Indonesia Mining Summit 2024, IGS Energy Talk 2024, and several other forums, sharing our recommendations for accelerating the country's energy transition and achieving Net-Zero Emissions.

We ended the year with the *The PYC Ensight* talk show on bioethanol optimization and celebrated our progress during a joyful Year-End Gathering.

Looking ahead, the Purnomo Yusgiantoro Center remains committed to tackling the challenges of Indonesia's energy transition to advance the development of renewable energy. We are deeply grateful for the ongoing support from our partners and stakeholders. None of this would be possible without you.

We look forward to staying connected throughout 2025 as we continue our work toward a sustainable and secure energy future for Indonesia.

Here's to energizing a better tomorrow, as we take bold steps towards a cleaner, more sustainable 2025!

Filda Citra Yusgiantoro, Ph.D.

The Opinion

is a channel to assert various point of views related to topics in the energy and natural resources sector



Educating the Indonesian Public about Energy Subsidies

Felicia Grace (Researcher, Purnomo Yusgiantoro Center), Vivid Amalia Khusna (Research Staff, Purnomo Yusgiantoro Center).

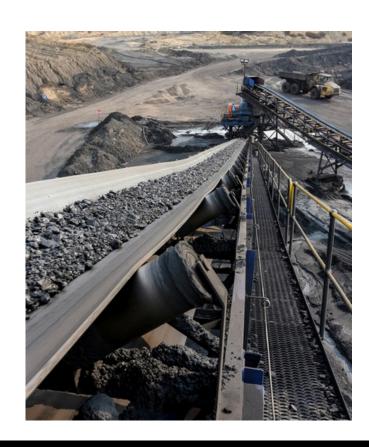
The government is committed to reform energy subsidies to make them more prioritized, particularly for the underprivileged communities in need. This effort stems from the current energy subsidies burdening the state budget (APBN) and affecting the allocation of funds for critical sectors such as education and health. However, this initiative faces challenges due to the public's limited understanding of energy subsidy policies. Therefore, the government needs to educate the public through digital and conventional media as well as local authorities. Transparency and inter-agency coordination are essential in building trust and support for sustainable subsidy reform.

CLICK HERE TO READ

Indonesia Cannot Afford to Abandon Coal As it Shifts to Greener Energy

Nadira Asrifa (Researcher, Purnomo Yusgiantoro Center), Hidayatul Mustafidah (Research Staff, Purnomo Yusgiantoro Center).

Coal remains a debatable issue in the global energy transition due to its environmental impact and role as a reliable baseload power source. As the world shifts to cleaner energy, using coal is questionable; yet many countries, including Indonesia, still rely on it for energy security and economic stability. Learning from China, where coal supports energy stability despite massive renewable investments, Indonesia should balance environmental goals with national energy needs. A pragmatic coal phase-down (CPD) approach can ensure energy security, economic growth, and reduced emissions during the transition to a greener future



Research Report

This section is a report of the results of our research study.



PURNOMO YUSGIANTORO CENTER RESEARCH TEAM:

- Michael Suryaprawira, S.T., MT
- Ahmad Munawir Siregar, S.Si., M.Han.



Strategies to Strengthen the Electricity System in 3T Regions

In September 2024, Purnomo Yusgiantoro Center (PYC) published a policy brief titled "Strategies to Strengthen the Electricity System in 3T Regions."

This report outlines strategies to enhance the electricity systems in Indonesia's 3T regions (Frontier, Outermost, and Disadvantaged areas) using qualitative methods, including Focus Group Discussions (FGD), interviews, and field visits. These approaches provide an in-depth understanding of the complexities and dynamics of energy transition at the regional level.

Through this policy brief, the PYC team identified various challenges in energy provision for remote areas, limitations in implementing renewable energy roadmaps, and evaluations of technologies that can support a transition toward cleaner and more sustainable energy.

Research Report

This section is a report of the results of our research



Indonesia's Energy Sector Reform: Supporting the Energy **Transition to Strengthen Energy and Economic Security**



Indonesia's energy sector is at a critical juncture that demands deep reforms to address the challenges of growing energy needs, energy security, and demands for sustainability. The Indonesian government has set ambitious targets in its energy transition efforts. However, the realization of renewable energy in 2023 is still far from the target, indicating that there are still many challenges that need to be addressed to achieve these targets.

The PYC Research Team has mapped out seven pillars of challenges that serve as the foundation for energy sector reforms in Indonesia.

Research Report

This section is a report of the results of our research study.



PURNOMO YUSGIANTORO CENTER RESEARCH TEAM:

- Massita Ayu Cindy, S.T., M.T.
- Vivid Amalia Khusna, S.E.



The Potential of Renewable Energy-Based Data Center Industry to Support National Security

The demand for data center services is rapidly in line with the swift increasing transformation in government, economic, and public service sectors. The data center industry faces significant challenges related to energy consumption and environmental necessitating a transition to renewable energy. Indonesia has a competitive advantage due to abundant renewable energy resources, global connectivity, and supportive government policies. However, implementing green data centers requires streamlined licensing processes, strengthened the infrastructure of renewable policies. efficiency energy and energy, investment incentives. This report examines the potential of renewable energy-based data centers in Indonesia as a strategic step to support digital transformation and national security.

Research Report

This section is a report of the results of our research study.



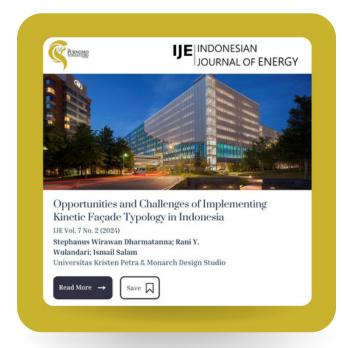


PYC KALEIDSOCOPE 2024

The PYC Research Team has summarized fourteen energy-related news events occurring throughout the year of 2024 in Indonesia for this Energy Kaleidoscope 2024. The PYC Energy Kaleidoscope discusses key developments in the energy sector, including policy updates, efforts toward energy transition through renewable energy, and the efforts of countries to include energy transition agendas in international meetings. This kaleidoscope wishes to provide insight and support the realization of sustainable energy for Indonesia.

Indonesian Journal of Energy

It is a multidisciplinary journal focused on energy research, aiming to provide authoritative information through analyses, reviews, andevaluations.



Hi, Jagoan Energi 👏

Ever thought how kinetic facades can revolutionize building designs in Indonesia? make in this paper explores the Opportunities and Challenges Implementing Kinetic Façade Typology in Indonesia! Through a detailed analysis, researchers highlight kinetic facades how enhance energy efficiency, reduce carbon emissions, and improve indoor environmental quality.

Despite these benefits, challenges like technical barriers, regulations, and market acceptance remain. However, with Indonesia's vast wind energy potential, kinetic facades could be the next big leap in sustainable architecture!

Curious about the future of green buildings in Indonesia? Dive into the full paper by Stephanus W. Dharmatanna, Rani Y. Wulandari, and Ismail Salam.

Indonesian Journal of Energy

It is a multidisciplinary journal focused on energy research, aiming to provide authoritative information through analyses, reviews, andevaluations.



Hi, Jagoan Energi 👏

the study explores various scenarios—showing how renewable energy, energy efficiency, and Carbon Capture and Storage (CCS) technologies can transform the nation's energy landscape.

Want to learn more about the pathway to a cleaner and more secure energy system in Indonesia? Check out the full paper titled "Rethinking Energy Security in Indonesia from a Net Zero Perspective" by Ayu P. Muyasyaroh

PYC understands the importance of reliable data in the energy sector.

INDONESIA'S ELECTRICITY STATISTICS

The Indonesia's Electricity Statistics is a dynamic dataset in the PYC Data Center that provides information on the developments in the electricity sector in Indonesia, as reported by PLN.

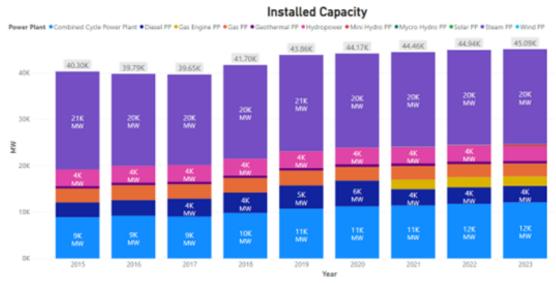


Figure 1. Installed Capacity from 2015 to 2023.

As of end of December 2023, the total installed capacity and the number of units of power plants of PLN (PLN Group Power Plants) has reached 45,095.19 MW and 6,446 units, with 31,202.08 MW (65.29%) of it located on Java. The total installed capacity increased by 0.34% compared to the end of December 2022.

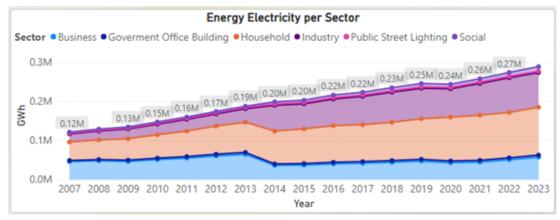


Figure 2. Energy electricity per sector from 2007 to 2023.

Data Center

PYC understands the importance of reliable data in the energy sector.

Figure 2 shows the statistics of electricity sales per sector from 2007 to 2023. In 2023, the total electricity sales in Indonesia increased by 5.4% compared to the previous year, from 273,761.48 GWh to 288,435.78 GWh. The largest increase occurred in the business sector, which grew by 13%, reflecting the post-pandemic economic recovery and growth. The residential sector also saw a significant increase of 5.4%, while the industrial sector experienced a slight increase of about 0.1%. The social and public lighting sectors saw smaller increases, reflecting the growing energy needs as infrastructure and public facilities expand. The electricity sales per sector statistics are also analyzed in terms of revenue since 2014, as shown in Figure 3.

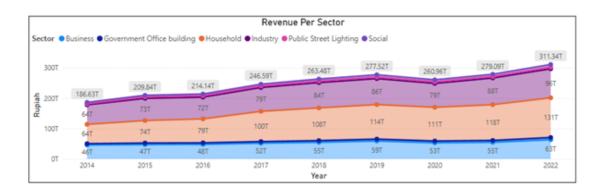


Figure 3. Revenue per sector for electricity from 2014 to 2023.

Our **Publication**

Energy Drink

is a podcast by PYC that brings together experts from the energy sector for casual discussions on the hottest topics.



ENERGY DRINK by PYC #33 Kaleidoskop Energi 2024

Hello, Jagoan Energy!

At the end of this year, PYC Energy Drink will close 2024 with discussions about energy news, from global to national highlights throughout the year. For example, updates on policies, efforts for energy transition, and the energy transition agenda in international forums.

What policies have been updated throughout 2024? How are the government and stakeholders pushing for energy transition this year? What energy issues are occurring at the global and national levels in 2024? All will be discussed with PYC researchers: Ayu, Felicia, and Michael, guided by Nadira.

Watch it on the Purnomo Yusgiantoro Center YouTube Channel.



Purnomo Yusgiantoro Center | ⊚(**f**)⊗(**in**) □



53rd IAGI Annual Scientific Meeting

Dr. Raden Sukhyar, as Senior Fellow of PYC, was appointed Speaker in 53rd IAGI Annual Scientific Meeting Convention and Exhibitions, held in Novotel Ballroom, Balikpapan on Wednesday, 9 October 2024.



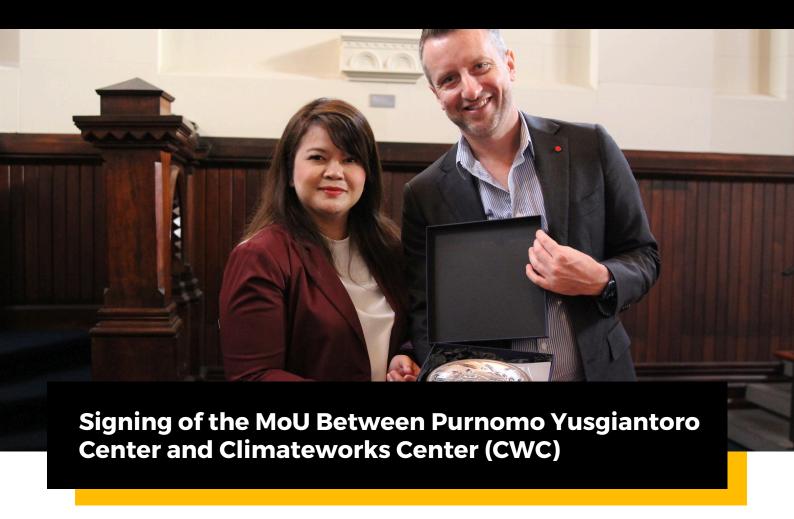
Dr. Sukhyar explained the importance of the Geology Law in achieving Indonesia Gold 2045. Geology plays a crucial role in various issues, such as providing information about energy, the environment, spatial planning, and disaster management. Several developed countries already have a Geological Agency that can serve as a benchmark for Indonesia. Therefore, discussions regarding the Geology Law are important to be addressed by the government as soon as possible.



Farida Zed, Senior Consultant at the Yusgiantoro Purnomo Center. served as one of the panelists at the Indonesia Future Policy Dialogue organized by Katadata on 9 October 2024. During the event. she underlined the importance ensuring that the energy transition continues to prioritize Indonesia's energy security, institutional collaboration.



the establishment of a national database on renewable energy potential and prospective project locations for infrastructure development, as well as the prioritization of programs aimed at accelerating the adoption of a diversified energy mix.



The Chairperson of the Purnomo Yusgiantoro Center (PYC), Filda Citra Yusgiantoro, signed a Memorandum of Understanding (MoU) with the CEO of Climateworks Center (CWC), Anna Skarbek. This MoU signing officially marks the commencement of a collaborative research initiative focusing on the development of an Indonesia-Australia roadmap for critical mineral processing in low-carbon battery industries. Furthermore, it reflects the mutual commitment of both parties to advancing research and development in a more efficient and environmentally friendly critical mineral supply chain, recognizing its vital role in the global energy transition.

Following the MoU signing ceremony, the PYC team also attended the "Monash Anniversary Celebration." 15th This event commemorated Climateworks Center's 15 years of achievements and served as a significant platform for PYC to expand its network of partnerships with various institutions engaged in the energy sector.



CSIS Public Seminar - Policy Review Supporting the Energy Transition and New Administration's Economic Growth Targets

On 22 October 2024, Prof Purnomo Yusgiantoro gave a keynote speech at the CSIS Public Seminar titled Policy Review Supporting the Energy Transition and the New Government's Economic Growth Target.



Prof Purnomo said the transition from fossils to non-fossils could not be done quickly. In the transition period, efforts to diversify fossil energy into EBT, energy sources such as water, geothermal, BBN, natural gas and coal with environmentally friendly technology (Clean Coal Technology, CCT) can be used as the main energy source in the transition phase.



On 24 October 2024, the Purnomo Yusgiantoro Center (PYC), as part of the Energy Transition Policy Development Forum (ETP Forum), held a media discussion titled "Leading the Change: Energy Transition and Net-Zero Emissions in the Prabowo-Gibran Administration."

The ETP Forum, comprising of Climateworks Centre (CWC), the Institute for Essential Services Reform (IESR), PYC, the Centre for Policy Development (CPD), the Indonesia Research Institute for Decarbonization (IRID), and the International Institute for Sustainable Development (ISID), proposed practical and actionable solutions to accelerate the energy transition and achieve netzero emissions. The Forum presented nine key recommendations for the energy sector, addressing issues such as subsidies, energy access in 3T regions, carbon economic value, and incorporating a GEDSI (Gender Equality, Disability, and Social Inclusion) lens into policymaking.

Representing PYC, Filda Citra Yusgiantoro, the Chairperson of PYC, participated in the media discussion to present these recommendations, developed collaboratively with the ETP Forum.



Prof. Purnomo Yusgiantoro, Founder of the Purnomo Yusgiantoro Center, delivered the keynote speech at the 9th International Conference on Energy, Environment, Epidemiology, and Information System (ICENIS 2024), organized by Universitas Diponegoro at Hotel Santika, Semarang.

In his presentation, "Strengthening Energy Security for Sustainable Development in the Face of Climate Change," he addressed the global challenges of climate change driven by fossil fuel consumption. Highlighting Indonesia's resilient energy security, he emphasized the need to strengthen it by optimizing resources, addressing supply and demand, and prioritizing resource downstreaming to achieve energy independence and economic resilience. The session provided valuable insights into balancing energy security and sustainability amid global challenges.



PYC Senior Fellow, Dr. Ir. Bambang Setiawan, was a speaker at the Presentation Session Day 2 of the ASEAN Mining Conference 2024 took place in Bali Beach Convention, 19 October 2024. This event was a series of ASEAN Senior Officials Meeting on Minerals (ASOMM).

In his presentation "Geopolitical Dynamics of Mineral and Coal: Positioning ASEAN Energy and Resource Security Landscape", Dr. Bambang conveyed the condition of the critical energy and mineral sectors in the ASEAN region, as well as geopolitical opportunities and challenges in these sectors.





Purnomo Yusgiantoro (Founder of Purnomo Yusgiantoro Center)

On Friday, 22 November 2024, Mr. Purnomo Yusgiantoro attended a Focus Group Discussion with the Indonesia Mining Forum themed "The Vision of Indonesia's Mining Sector: Empowering Energy Resilience for Indonesia." The event, held at Menara Kompas, brought together editors from energy and mining media outlets at Kompas.

This discussion served as a pre-event for the Indonesia Mining Summit 2024, scheduled for 4 December 2024.

In his presentation, Mr. Purnomo emphasized the importance of stakeholders in the mining sector leveraging the abundant natural resources Indonesia has to drive economic growth through downstream processing of mining products to support energy resilience.

He also highlighted the significance of collaboration between the government, private sector, academia, and NGOs—the quadruple helix model—in building a harmonious and sustainable mining and mineral industry ecosystem.



Prof. Purnomo Yusgiantoro was the keynote speaker at the Ecofest 2024 event. This event was organized by Bloomberg Technoz on 28 November 2024 in Jakarta with the theme Building the Future: Create a Sustainable Green Ecosystem. On this occasion, Prof. Purnomo conveyed the urgency for Indonesia to achieve net-zero emissions because energy sector emissions are increasing yearly. Apart from that, Prof. Purnomo also conveyed Indonesia's targets and provided a strategy to achieve NZE in 2060 by utilizing the existing NRE potential, one of which is through a decarbonization strategy.





The Purnomo Yusgiantoro Center (PYC) hosted a talk show titled The Ensight, held at the PYC office in South Jakarta on Saturday, 7 December 2024. The theme of this talkshow was "Optimization of Bioethanol Utilization to Enhance National Energy Resilience." The speakers at this event were Fadli Rahman, Ph.D. (PT. Pertamina New and Renewable Energy), Dr. Helda Risman, M.Han (University of Defense), and Dr.-Ing. Evita H. Legowo (Academic).

Through this talk show, PYC hopes to increase public understanding of bioethanol as an alternative energy source and encourage the creation of collaborations between the public and private sectors to achieve sustainable energy resilience.

Berkeadilan di Indonesia"



Filda C. Yusgiantoro, Chairperson of the Purnomo Yusgiantoro Center, was a panelist at the National Seminar and Program Launch, "Encouraging Institutional Strengthening and Policy Reform for a Just Energy Transition in Indonesia," organized by The Habibie Center. She emphasized the crucial role of society in ensuring the success of the energy transition agenda. Therefore, inclusive policies are essential, such as gender-disaggregated data collection, accessible and disabled-friendly technology, and sustainable financing through cooperatives (BumDes) to support the operation of renewable energy plants in communities. From society's perspective, personal empowerment should be pursued through courses and training, while structural empowerment can be achieved by engaging local institutions, such as subdistrict offices and village organizations, for public outreach. Additionally, sustained collaboration and partnerships are vital to ensure comprehensive community participation in supporting an inclusive energy transition.



ACICIS Seminar on Energy Transition in Indonesia

Felicia Grace, a researcher from the Purnomo Yusgiantoro Center (PYC), represented PYC as a speaker at a seminar held as part of the Monash Immersion Guarantee (Monash GIG) program, organized by ACICIS (Australian Consortium for In-Country Indonesian Studies).



The event took place on Tuesday, 10 December 2024, at Atma Jaya Catholic University of Indonesia, Jakarta. On this occasion, Felicia delivered a presentation on Indonesia's Energy Transition to students from Monash University, Australia.



The Chairperson of Purnomo Yusgiantoro Center (PYC), Filda Citra Yusgiantoro, attended the Indonesia Social Investment Forum (ISIF) 2024, which was held by Social Investment Indonesia (SII) last December in Bandung. ISIF 2024 featured range of national-level speakers, including policymakers, practitioners, academics, activists, and field practitioners, to discuss current issues related to social investment in Indonesia.

In Breakout Room 3, Filda presented a session on Social Innovation in the Field of Clean Energy. She explained that social innovation is a dynamic process of designing solutions to address challenges in the renewable energy sector. Filda also highlighted three key concepts in the development of clean energy: decarbonization, decentralization, and digitalization.

Several speakers also participated in the session, including Harris, Head of the EBTKE Testing and Survey Center Ministry of Energy and Mineral Resources (KESDM); Suripno, VP of Sustainability Strategy at PT Pertamina (Persero); and Imam Muttagien, Vice President of ESG & Safeguard at PT PLN (Persero). This forum served as an important platform to encourage cross-sector discussions and collaboration to accelerate the transition towards clean and sustainable energy in Indonesia.



IGS Energy Talk 2024

On 12 December 2024, Prof. Purnomo Yusgiantoro, was invited as the sole speaker at the IGS Energy Talk 2024. This event is an annual program organized by the Indonesian Gas Society (IGS) to discuss current issues related to natural gas from various perspectives. Given the diverse backgrounds of IGS members, the discussions involved natural gas producers,



industry players in transmission and distribution, natural gas consumers, as well as government representatives and regulators. During the event, both PYC and IGS expressed hopes for improvements in Indonesia's natural gas industry, particularly in the areas of allocation and pricing. These efforts are expected to support sustainable national economic growth while optimizing the use of natural gas as a strategic energy resource for Indonesia.



Purnomo Yusgiantoro Scientific Oration at the 66th Anniversary of UPN "Veteran" Yogyakarta

On Monday, 16 December 2024, Mr. Purnomo Yusgiantoro, Special Advisor to the President for Energy Affairs, delivered a scientific oration titled "Energy Transformation Towards a Golden Indonesia" at the 66th Anniversary of UPN "Veteran" Yogyakarta.

In his oration, Mr. Purnomo highlighted the importance of leveraging Indonesia's demographic bonus to drive economic growth. He also emphasized the need for energy transition and diversification of energy sources to ensure that Indonesia's economy—driven by the manufacturing sector—can grow sustainably with strong governance practices.

Following his address, Mr. Purnomo was honored with the Widya Mwat Yasa award in recognition of his significant contributions to higher education.



Prof. Purnomo Yusgiantoro delivered a lecture during the Pre-Deployment Training of the International Relations Division of the Indonesian National Police on 23 and 24 December 2024 at the Purnomo Yusgiantoro Center office in Jakarta. The purpose of this activity was to provide preparation to prospective Indonesia Police Attachés soon to be stationed in various countries. Prof. Purnomo covered topics related to Indonesia's role in global geopolitics and interpersonal communication skills. This event served as a crucial moment in preparing the prospective Indonesian Police Attachés to face increasingly complex task challenges.

Social **Initiatives**



National Osteoporosis Day (HON)

The Purnomo Yusgiantoro Center participated in the event of National Osteoporosis Day (HON) 2024, with the theme "United Movement for Strong Bones in Indonesia." The event was organized by the Indonesian Healthy Bone Citizens Association (Perwatusi) on Sunday, 27 October 2024, at the North Plaza of Gelora Bung Karno (GBK), Jakarta.

The event kicked off with the Perwatusi Osteoporosis Exercise Festival, which was attended by thousands of participants from various backgrounds. It was followed by a discussion featuring Surya Saputra as a special guest, Dr. Andi Kurniawan, Sp.Ko, Dr. Adeline, and moderated by Dr. Lula Kamal.

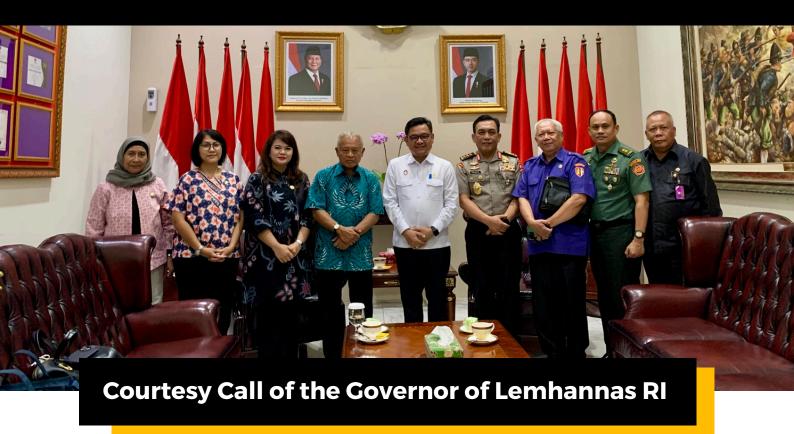
The aim of this activity was to raise public awareness on the importance of bone health as a long-term investment.



Two books authored by several Ministers of the Indonesia United Cabinet I (KIB I) from 2004 to 2009 were officially launched at the Jakarta Convention Center, Jakarta, on Thursday (10 October 2024). The launch of the two books was attended by the 6th President of the Republic of Indonesia, Susilo Bambang Yudhoyono (SBY), and the Vice President of the Republic of Indonesia, Jusuf Kalla (JK), who both led the cabinet from 2004 to 2009.



The first book, launched by the KIB I Association, is titled The Journey and Achievements of the Indonesia United Cabinet I (2004–2009). Meanwhile, the second book, published almost simultaneously by Kompas Book Publisher (PBK), is titled Behind the Scenes of the Cabinet: Testimonies and Reflections on the Struggles of the Ministers of the Indonesia United Cabinet I.



The Founder of Purnomo Yusgiantoro Center (PYC), Prof. Purnomo Yusgiantoro, led a courtesy call to the Governor of Lemhannas RI, Dr. H. Tb. Ace Hasan Syadzily, M.Si, at the Lemhannas RI Building.

In this meeting, Prof. Purnomo and Dr. Ace Hasan discussed preparations for the collaboration between Purnomo Yusgiantoro Center, Lemhannas RI, and the Lee Kuan Yew School of Public Policy for KPPD II in 2025.



On Thursday, 21 November 2024, The Chairperson of Purnomo Yusgiantoro Center (PYC), Filda Citra Yusgiantoro, and the Founder of PYC, Prof. Purnomo Yusgiantoro, together with Institut Teknologi Bandung (ITB), officially inaugurated the Labtek XVII Dato' Dr. Low Tuck Kwong Building at ITB's Ganesha Campus. The event was attended by ITB Rector Prof. Reini Wirahadikusumah, Ph.D.; Dato' Dr. Low Tuck Kwong; former ITB Rector 2015-2020 Prof. Dr. Kadarsah Suyadi; former Minister of State-Owned Enterprises, Dahlan Iskan; ITB leadership; the academic community; and representatives from PYC.

Prof. Reini emphasized that the building is intended to be a facility for multidisciplinary research and education. During the event, she also highlighted that the collaboration between Dato' Dr. Low Tuck Kwong and ITB has made a positive impact on Indonesia's educational landscape.

The laboratory building consists of five floors and is equipped with modern facilities. One of the main focuses is the Enhanced Oil Recovery (EOR) Laboratory. Additionally, there will be an advanced computer laboratory and various specialized equipment tailored to meet research needs.

The second floor of the building is named after Prof. Purnomo Yusgiantoro in honor of his contributions to the energy and mineral resources sector in Indonesia.

In her speech, the Chairperson of PYC explained that this collaboration not only strengthens research in petroleum engineering but also opens opportunities for new innovations and breakthroughs in technology. The inauguration underlined the importance of partnerships between educational institutions and philanthropy in creating a sustainable future.



On 13 December 2024, the PYC team celebrated the end-of-the-year with a gathering. It was held at Chao Phraya Restaurant, South Jakarta. The theme for this year's gathering was Music Genre. All employees dressed up as celebrities or fans and musicians from various music genres. The event started with a speech from PYC's Chairperson, Filda Citra Yusgiantoro. Followed by dinner, group games and ended with announcement of the winner of the games, gifts exchanged and door prizes.

PRO MO TION BOOK

"Politik Energi: Teori dan Aplikasi"



