

## Dominating Indonesia's Baseload Transition

23 September 2025



PGEO IJ	BUY
Sector	Renewables
Price at 22 September 2025 (IDR)	1,320
Price target (IDR)	1,600
Upside (%)	+21.2

### Stock Information

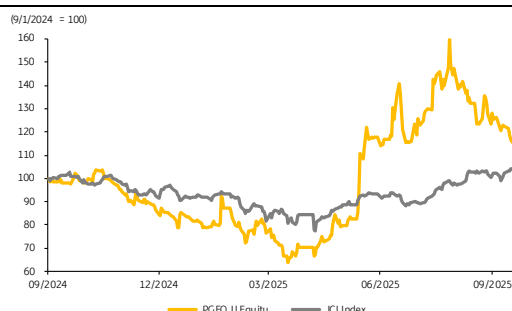
PT Pertamina Geothermal Energy Tbk. (PGEO), Indonesia's largest geothermal operator established in 2006 and listed in 2023, is powering the nation's energy transition through scalable baseload expansion and strategic 3-phase growth pipeline.

Market cap (IDR Bn)	55,177
Shares outstanding (mn)	41,801
52-week range (IDR)	700 – 1,855
3M average daily vol. ('000)	98,363
3M average daily val. (IDR Bn)	150.9

### Shareholders (%)

PT Pertamina Power Indonesia	68.4
Masdar Indonesia Solar Holdings	14.9
PT Pertamina Pedeve	5.9
Public	10.8

### Stock Performance



Source: Bloomberg

	YTD	1M	3M	12M
Absolute	41.2	(6.7)	-	14.8
JCI Return	13.6	2.3	18.5	3.4
Relative	27.6	(9.0)	(18.5)	11.4

### Analyst

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PGEO stands at the forefront of Indonesia's baseload energy transition, leveraging its position as the country's largest geothermal IPP (74% market share) to double capacity from 727 MW (2025F) to 1,747 MW by 2033F via its 3-phase rollout. Backed by 80% capacity factors, indexed tariffs, and long-term SSC/PPA contracts with PLN, PGEO delivers sustained EBITDA margins >50% and rising output to 12.2 TWh by 2035F. Supported by Presidential Regulation 112/2022 and its control over 34% of the 5.2 GW RUPTL geothermal roadmap, earnings are forecast to grow steadily to USD754 mn by 2030F. We initiate with BUY and a TP of IDR1,600/share, based on DCF (11.6% WACC, 2.5% TGR), implying 9.3x 2026F EV/EBITDA, still at a 15% discount to geothermal peers despite its dominant positioning and long asset life.

### Doubling capacity by 2031F, output to reach 12.2 TWh, sustained EBITDA margin >50%.

PT Pertamina Geothermal Energy Tbk. (PGEO), Indonesia's leading geothermal IPP with 74% market share, is on track to double capacity from 727 MW (2025F) to 1,747 MW by 2033F via its 3-phase rollout (Quick Win, Extension, Greenfield). With 37.7% of the 1 GW pipeline already contracted under long-term SSC/PPA schemes, we project PGEO targets output to grow from 5.2 TWh (2025F) to 12.2 TWh (2035F). With efficient operations at 80% capacity factors and dominant share in strategic geothermal baseload assets, PGEO delivers structurally high gross margin (>80%) and EBITDA margin (>50%), supported by indexed tariffs and cost-efficient project rollout.

### Strong policy tailwinds & vast underutilized resource = compelling long-term upside.

Despite Indonesia holding 29.5 GW geothermal potential, only 4.9% is tapped. PGEO controls 34% of the government's geothermal roadmap, aligned with the RE Base plan to expand PLTP capacity from 133 MW (2025) to 5.2 GW (2034). Presidential Regulation 112/2022 introduces a regional cap tariff, unlocking more viable project IRRs and long-term SSC/PPA certainty. PGEO's earnings are forecast to grow steadily from USD420mn (2025F) to USD754mn (2030F), with FCF turning positive post-2032 despite a front-loaded capex cycle. With clear project visibility and national-scale positioning, PGEO offers a compelling long-term play on Indonesia's baseload energy transition.

### Discounted valuation despite scale advantage – BUY with IDR 1,600 TP.

We initiate coverage on PGEO with a BUY call and TP of IDR 1,600, offering +21% upside, backed by strong government policy support, inflation-linked tariffs, and long-term offtake contracts with PLN. PGEO's 2026F EV/EBITDA of 9.3x trades at a 15% discount to geothermal peers (10.8x), despite its dominant position as Indonesia's largest geothermal operator with 727 MW installed capacity and access 34% under RUPTL 2025–2034. Its 2026F ROE of 7.2% is above the global renewable average and narrowing the gap with domestic names (9.0%), suggesting improving returns. With strong policy tailwinds, long asset life, and resilient cash flows, PGEO is well-positioned to benefit from Indonesia's 5.2 GW geothermal roadmap by 2034. Near-term catalysts include new project PPAs and regulatory incentives. Key risks: implementation delays, changes in regulation focus, and higher upfront capex due to evolving LCOE targets.

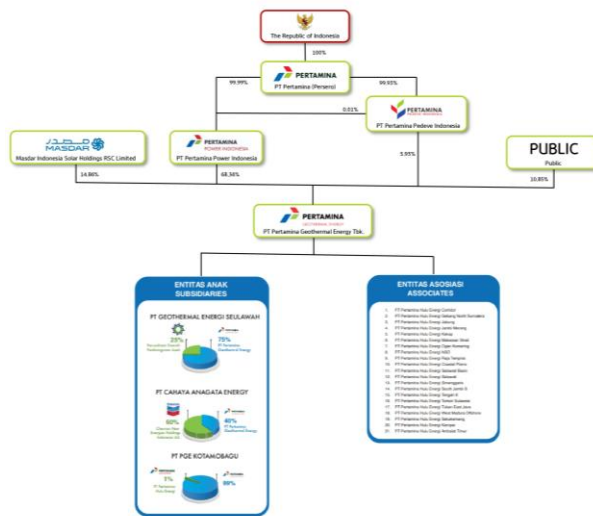
### Exhibit 1: Forecasts and Valuations (at closing price IDR1,320/share)

Y/E Dec	23A	24A	25F	26F	27F
Revenue (IDR Bn)	406	407	420	451	525
EBITDA (IDR Bn)	337	324	343	368	428
EV/EBITDA (x)	4.4	5.6	7.8	7.9	7.6
Net Profit (IDR Bn)	164	160	158	151	156
EPS (IDR)	60	61	64	60	64
EPS Growth (%)	31.1	2.0	5.3	(5.9)	6.0
P/E Ratio (x)	15.1	17.8	20.6	21.9	20.6
BVPS (IDR)	708	723	740	754	768
P/BV (x)	1.3	1.5	1.8	1.8	1.7
ROAE (%)	8.2	7.9	7.6	7.2	7.3
ROAA (%)	6.0	5.4	5.6	5.6	5.2
Net Gearing (x)	(0.2)	(0.2)	0.1	0.2	0.4

## Business Overview

PT Pertamina Geothermal Energy Tbk (PGEO), established in 2006 and listed on the IDX in 2023, is a subsidiary of PT Pertamina (Persero), one of the largest state-owned enterprises (SOEs) in Indonesia, focused on developing and operating geothermal resources across Indonesia. PGEO contributes to the country's renewable energy transition by providing reliable, affordable, and clean baseload power. The company controls 74% of Indonesia's installed geothermal capacity, managing 15 geothermal working areas with total of 1,932 MW (727 MW is operated independently and 1,205 MW via Join Operation Contract (JOC) as of 2025, where partners run the operations and pay PGEO production allowances (~5% of total revenue). Revenue is primarily derived from Steam Sales Contracts (SSC) and Power Purchase Agreements (PPA) with PLN and IPPs. In SSC, PGEO owns the steam fields while power plants are operated by PLN or IPPs, selling steam under long-term contracts (20–30 years) with ~2% annual tariff escalation. Under PPA, PGEO owns both steam fields and power plants, selling electricity directly to PLN with tariffs linked to US PPI/CPI and quarterly adjustments, secured by 30-year contract. However, from 2025 onward, all new PPAs and SSCs will follow Presidential Regulation (Perpres) No. 112/2022, with tariffs set using a regional cap mechanism.

### Exhibit 2. Shareholder Structure

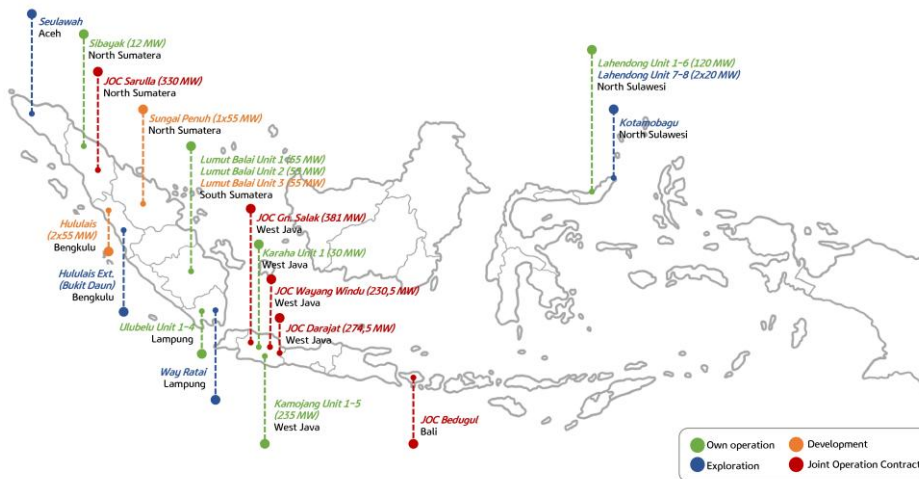


As a key pillar in Indonesia's renewable energy roadmap, PGEO plays a central role in advancing geothermal as dependable baseload power source.

Majority-owned by PT Pertamina Power Indonesia (66.99%, a subsidiary of PT Pertamina), ..

Source: Company, KBVS Research

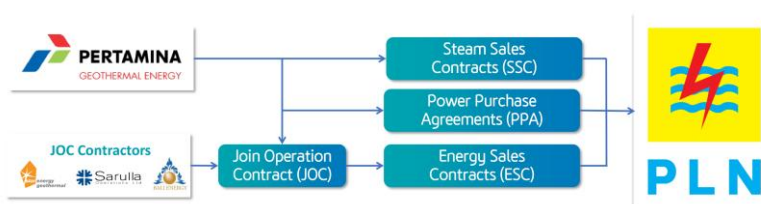
### Exhibit 3. Existing Asset



.. PGEO operates 15 geothermal areas across Indonesia, including mix of own operations, JOC, and exploration-stage assets.

Source: Company, KBVS Research

### Exhibit 4. Commercial Framework



Revenue streams are derived from SSC, PPA, and ESC with PLN, including via JOC schemes.

Source: Company, KBVS Research

Exhibit 5. Tariff Adjustment Mechanism

Old	
Power	Tariff adjustment was indexed to movements in US PPI and US CPI
Steam	+2% per year
New	
Power & Steam	Both follow Presidential Regulation (Peraturan Presiden) No.112/2022, with pricing set using a regional cap mechanism

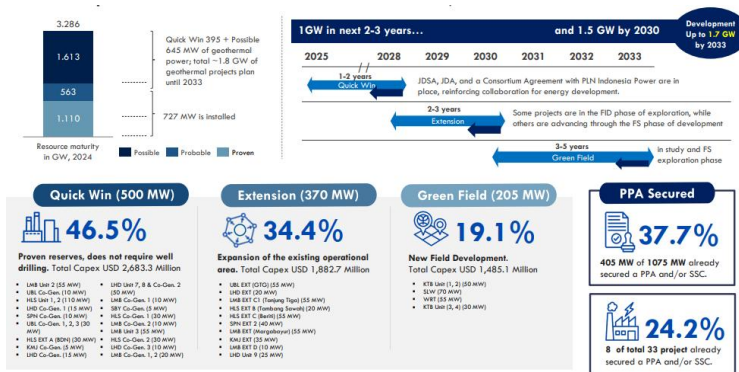
Source: Company, KBVS Research

PGEO has identified internal geothermal reserves totaling 3.2 GW, yet current utilization stands at only 727 MW, highlighting vast headroom for expansion. The company is actively executing a long-term growth strategy with a well-structured project pipeline extending through 2035F, while also lowering its development cost per MW and diversifying into new revenue to improve project returns. Project rollout is segmented into three phases:

- Quick Win (500 MW, 1-2 years): focuses on proven reserves that require no new drilling. PGEO target capacity uplift up to ~20% from existing assets through binary or cogenerations technology, offering attractive economics at ~USD3.5mn/MW (vs. USD5-6mn/MW for greenfield)
- Extension (370 MW, 2-3 years): expands within current operational areas, leveraging existing infrastructure.
- Green Field (205 MW, 3-5 years): unlocks new geothermal fields currently in feasibility or exploration phase.

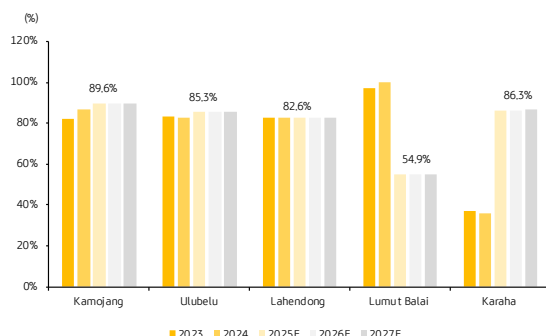
PGEO targets 1 GW of new capacity within the next 2 – 3 years and aims to reach 1.7 GW by 2033. AS of now, 37.7% of 1 GW pipeline has secured PPA and/or SSC contracts, along with 8 of 33 projects already commercially contracted.

Exhibit 6. Project Pipeline



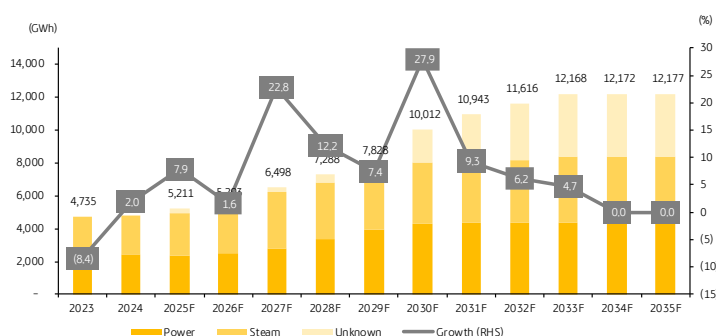
PGEO targets a consistently high capacity factor, averaging ~80%, by minimizing both planned and unplanned downtime. Capacity factor, which measures actual output versus maximum potential output (excluding scheduled maintenance), is a key indicator of operational reliability. To support this, PGEO applies sustainable reservoir management through advanced modeling, monitoring, and analytics, ensuring long-term production efficiency and resource sustainability. Based on installed capacity and average utilization, annual production volume is projected in Gigawatt-hours (GWh), a key metric for large-scale power generation. In 1H25, PGEO recorded 2,417 GWh, with 61% from power and 39% from steam. With upcoming capacity additions and an assumed 80% capacity factor across the fleet, total output is expected to double by 2030 and peak at 12,168 GWh by 2033. PGEO's efficient operations and scale advantage are expected to drive lower levelized cost per GWh.

Exhibit 9. Capacity Factor by Site



Source: Company, KBVS Research

Exhibit 10. Production Volume and Growth Forecast



Source: Company, KBVS Research

As part of its global expansion strategy, PGEO is exploring international geothermal development, including a partnership with Kenya's GDC and AGIL to develop the Suswa geothermal field. The project, located in Narok's volcanic region, is supported by the Kenyan government and aims to strengthen PGEO's global footprint. PGEO applies strict due diligence, evaluating resource potential, regulatory stability, and bilateral government support before committing. Beyond Kenya, PGEO is also assessing opportunities in Türkiye and other high-potential markets, with a focus on long-term sustainability and project returns.



A combination of operational efficiency and scalable assets underpins PGEO's long-term growth trajectory.

PGEO consistently maintains high capacity factors across key sites, exceeding 85% at Kamojang, Ulubelu, and Karaha

PGEO's production volume is forecast to grow from 5,211 GWh in 2025F to a peak of 12,177 GWh by 2035F, with strongest expansion between 2026F–2031F driven by capacity additions.

PGEO is also expanding globally, starting with Kenya's Suswa field and exploring Türkiye.

Exhibit 11. Boards of Commissioners and Directors

Board of Commissioners		
	Position	Key Experience
 <p>Gigih Udi Atmo</p>	President Commissioner	Doctoral degree in Infrastructure Engineering and Master's degree in Engineering Project Management from the University of Melbourne, and Bachelor's degree in Electrical Engineering from Universitas Gadjah Mada (UGM). Brings extensive experience in renewable energy and electricity sectors, with a strong track record in public energy institutions. Currently serves as Director of Geothermal Energy at the Directorate General of New, Renewable Energy and Energy Conservation (EBTKE), Ministry of Energy and Mineral Resources. Appointed as Commissioner of PGEO in July 2024.
 <p>John Anis</p>	Commissioner	Bachelor's degree in Electrical Engineering from Institut Teknologi Bandung (ITB). Brings extensive leadership experience in the upstream oil & gas sector and plays a key role in Indonesia's energy transition through renewable portfolio development. Currently serves as President Director of PT Pertamina Power Indonesia. Previously held CEO roles at Pertamina Hulu Indonesia and Pertamina Internasional EP. Appointed as Commissioner of PGEO in May 2024.

Abdulla Zayed



Commissioner

Bachelor's degree in Engineering/Industrial Management and Diploma in Mechanical Engineering from UAE Higher Colleges of Technology. Currently serves as Director of Development & Investment (Asia & Africa) at Masdar and Chief Executive Officer of MW Energy. Previously held key positions as Government Budget Section Head at Abu Dhabi General Secretariat of the Executive Council and Renewable Energy Financial and Commercial Analyst at Masdar. Appointed as Independent Commissioner of PGEO in May 2024.

Abdul Musawir Yahya



Independent Commissioner

Master's degree in Islamic Studies and Bachelor's degree in Islamic Law from Universitas Muhammadiyah Malang. Brings extensive experience in national-level organizational leadership and previously served as Director of Maharaja Indonesia. Appointed as Commissioner of PGEO in July 2024.





Mohammad Firmansyah



Independent Commissioner

Bachelor's degree in Civil Engineering from Universitas Sriwijaya (1999). Currently serves as System Analyst at PT Fujitsu Indonesia. Appointed as Independent Commissioner of PGEO on August 20, 2025.

#### Board of Directors

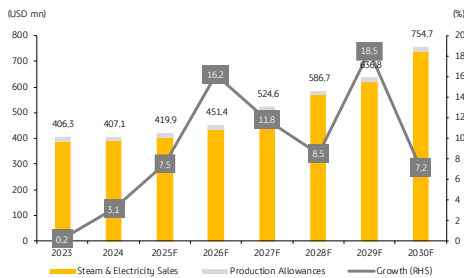
Name	Position	Key Experience
<p>Julfi Hadi</p> 	President Director	Master of Science in Geology from the University of Texas, El Paso (1998), and Bachelor of Science in Geology from the University of Kansas (1994). Completed the Senior Leadership Development Program at Harvard Business School (2023). Brings over 25 years of global experience in geothermal, oil & gas, and energy infrastructure. Held senior roles at Chevron, Star Energy, and PT Pertamina Geothermal Energy. Currently serves as President Director of PGEO and Chairman of the Indonesian Geothermal Association. Actively involved in shaping Indonesia's geothermal policy and investment landscape.
<p>Edwil Suzandi</p> 	Director of Exploration and Development	Bachelor's degree in Petroleum Engineering from Universitas Trisakti (1998) and Master's in Petroleum Engineering from Institut Teknologi Bandung (2001). Brings over 20 years of experience in upstream oil & gas operations, development, and management across leading multinationals. Previously held key roles at PT Pertamina Hulu Rokan, Schlumberger, and Petronas, including as Country Manager at Petronas Indonesia and Exploration Manager at Pertamina International EP. Currently serves as Director of Exploration & Development at PGEO.
<p>Ahmad Yani</p> 	Director of Operations	Bachelor's in Petroleum Engineering (2003) and Master's in Geothermal Exploration (2023) from Universitas Islam Riau. Has over two decades of experience in geothermal operations, drilling, and field development. Previously served as General Manager and Operation Manager at PGEO and held various technical roles at PT PLN Geothermal and PT Supreme Energy. Currently serves as Director of Operations at PT Pertamina Geothermal Energy Tbk.
<p>Yurizki Rio</p> 	Director of Finance	Bachelor of Economics from the University of Texas (2007) and MBA from Prasetya Mulya Business School (2011). Brings over 15 years of experience in corporate finance, investment banking, and risk management. Previously held senior roles at MAA Advisory, Orator Express, and PT MNC Sekuritas, with a focus on capital markets and strategic financial planning. Currently serves as Director of Finance at PGEO and heads the company's GCG and Risk Management Committee.

Source: Company, KBVS Research

## Financial Overview

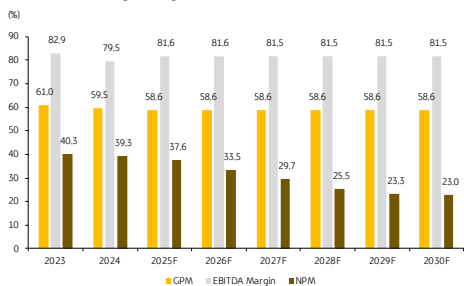
PGEO's financial profile show a compelling long-term growth story, underpinned by its strategic geothermal expansion. Revenue is projected nearly double from USD407.1 mn in 2024 to USD754.7 mn by 2030F, driven by long-term SSC and PPA agreements, alongside productions upsides. Despite a front-loaded capex cycle peaking at USD855 in 2028F, PGEO's earnings resilience remain robust, with gross profit margin (GPM) consistently exceeds 80%, and EBITDA margin solid above 50%, highlighting the strength of its cost-efficient, fixed-margin business model. While leverage will increase during the investment phase, with Debt to Asset ratio (DAR) peaking at 50.1% in 2030F and net gearing stays at 107.66%, free cash flow (FCF) turns positive again by 2032F. Although near-term returns may moderate, both ROA and ROE and set to rebound 5.3% and 10.4% by 2035F, paving a clear path toward value creation once the investment cycle matures.

**Exhibit 12. Revenue Composition and Growth**



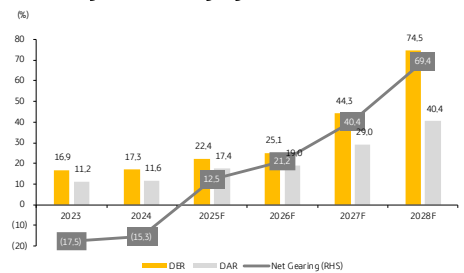
Source: Company, KBVS Research

**Exhibit 14. Profitability Margin Expansion**



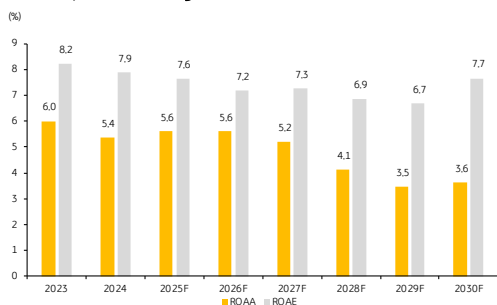
Source: Company, KBVS Research

**Exhibit 16. Leverage and Gearing Dynamics**



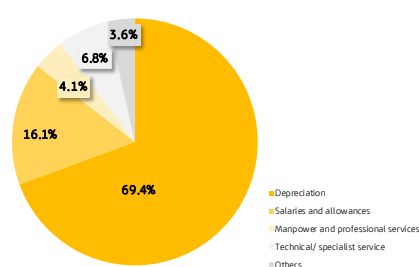
Source: Company, KBVS Research

**Exhibit 18. Capital Efficiency Metrics**



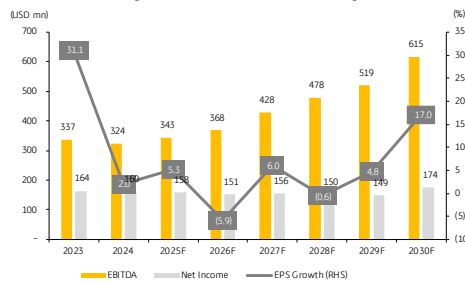
Source: Company, KBVS Research

**Exhibit 13. COGS Breakdown 2025F**



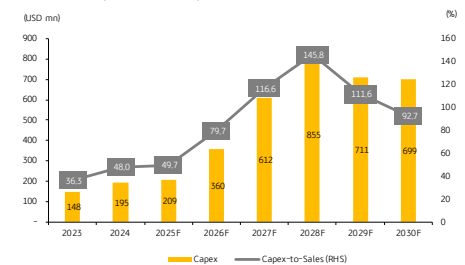
Source: Company, KBVS Research

**Exhibit 15. Earnings Growth and Profitability**



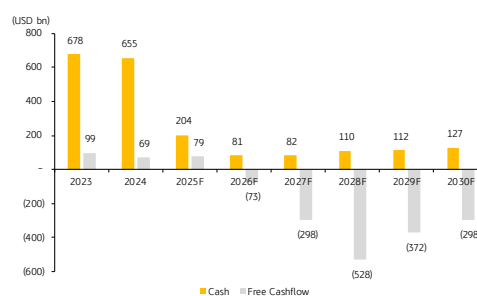
Source: Company, KBVS Research

**Exhibit 17. Capex and Capex-to-Sales Ratio**



Source: Company, KBVS Research

**Exhibit 19. Cash Position and Free Cash Flow**



Source: Company, KBVS Research

PGEO's near-term outlook reflects a steady growth trajectory, strong margins, and manageable gearing amidst its expansion phase.

The company revenue is set to grow +7.5% yoy in 25F, accelerating to +16.21% yoy in 26F at USD451.4 mn..

with profitability well intact as GPM and EBITDA margin stay firm at 58.6% and 81.6% in 2025F, while earnings declining -5.9% yoy in 2026F after holding steady in 2025F, ..

as leverage begins to build with DAR rising from 17.4% to 19%, and net gearing from 12.5% to 21.2%, in line with capex acceleration from USD209 mn to USD360 mn..

with ROA/ ROE gradually tapering to 5.6%/7.6% in 2025F and 5.6%/7.2% in 2026F, as PGEO FCF of USD 79mn and -USD 73mn amid elevated investment needs.

## Valuation

We initiate BUY on PGEO with TP of IDR 1,600, offering +21% upside, backed by strong policy tailwinds, long-term offtake with PLN, and underutilized geothermal resources. PGEO traded at 2026F EV/EBITDA of 9.3x and P/E of 26.5x, at a 15% discount to geothermal peers (10.8x EV/EBITDA) despite its superior positioning as the market leader with 727 MW installed capacity and access to 2,000 MW pipeline under PLN. PGEO also offers a 2026F ROE of 7.2% above global renewable average (7.3%) and narrowing gap vs domestic names (9.0%). Our DCF-derived equity value is IDR66.3 tn, assuming 11.6% WACC and 2.5% terminal growth. PGEO's long asset life, inflation-linked tariffs, and dominant market share provide resilient cash flows, while Presidential Regulation No. 112/2022 secures its role in Indonesia's geothermal expansion to 5.2 GW by 2031. Near-term catalyst include upcoming project PPA finalizations and regulatory incentives for renewable developers. Key risks include: implementation delays and higher upfront capex.

*BUY with IDR 1,600 TP as PGEO offers +21% upside backed by policy support, long-term PLN offtake, and market leadership in underutilized geothermal assets.*

### Exhibit 20. Valuation

DCF Valuation Summary		Cost of Capital Assumption	
Enterprise Value	USD4,462 mn	Risk Free Rate	5.8%
Net Debt	USD524 mn	Equity Risk Premium	7.2%
<b>Equity Value</b>	<b>IDR66,326 bn</b>	Beta	0.8
Shares Out.	41.51 mn shares	<b>Cost of Equity</b>	<b>11.7%</b>
<b>Fair Value/ Share</b>	<b>IDR 1,600/share</b>	Proportion of Equity	98.8%
<b>WACC</b>	<b>11.6%</b>		
<b>Assumptions</b>		Cost of Debt	6.4%
Forecast Horizon	10 years	Tax Rate	30%
Installed Capacity in 35F	1,747 MW	<b>After Tax Cost of Debt</b>	<b>4.5%</b>
Production Volume in 35F	12,177 GWh	Proportion of Debt	1.2%
		WACC	11.6%
		Terminal Growth	2.5%

	2025F	2026F	2027F	2028F	2029F	2030F	2031F	2032F	2033F	2034F	2035F
<b>EBIT (1-T)</b>	222	238	277	310	336	398	427	448	466	471	476
D&A	122	131	152	170	184	218	234	246	255	258	262
Chg. In WC	7	5	6	8	6	10	10	5	4	3	1
Capex	(210)	(361)	(613)	(857)	(712)	(701)	(449)	(229)	(131)	(50)	(47)
<b>Net FCF</b>	<b>207</b>	<b>84</b>	<b>(96)</b>	<b>(277)</b>	<b>(86)</b>	<b>43</b>	<b>349</b>	<b>603</b>	<b>733</b>	<b>822</b>	<b>833</b>
<b>PV of FCF</b>	<b>207</b>	<b>76</b>	<b>(77)</b>	<b>(200)</b>	<b>(55)</b>	<b>25</b>	<b>180</b>	<b>280</b>	<b>305</b>	<b>306</b>	<b>278</b>
<b>Enterprise Value</b>	<b>4,462</b>										

Source: Company, Bloomberg, KBVS Research

### Exhibit 21. Peers Comparable

Ticker	Market Cap. (USD mn)	P/E (x)		P/BV (x)		EV/EBITDA (x)		ROE (%)	
		25F	26F	25F	26F	25F	26F	25F	26F
<b>PGEO IJ</b>	<b>3,325</b>	<b>25.0</b>	<b>26.5</b>	<b>2.2</b>	<b>2.1</b>	<b>9.4</b>	<b>9.3</b>	<b>7.6</b>	<b>7.2</b>
<b>Geothermal</b>									
ORA US	5,627	42.0	37.3	2.1	2.0	14.6	12.9	8.6	10.2
MCY NZ	5,499	27.7	25.4	1.9	1.8	11.4	11.0	7.1	7.4
CEN NZ	5,318	24.3	24.3	2.1	2.1	11.3	10.6	10.1	9.6
FGEN PM	972	3.7	3.6	0.3	0.3	4.2	4.3	8.9	8.1
<b>Weighted Avg.</b>		<b>29.1</b>	<b>27.5</b>	<b>2.0</b>	<b>1.9</b>	<b>11.6</b>	<b>10.8</b>	<b>8.5</b>	<b>8.7</b>
<b>Renewables</b>									
RNW US	3,031	38.7	27.2	2.4	2.2	10.1	8.9	3.9	5.4
1798 HK	2,350	8.2	7.2	0.8	0.8	9.2	8.4	8.8	10.5
603693 CH	1,583	22.2	18.9	1.6	1.5	10.7	10.1	7.2	7.9
ACEN PM	1,595	18.3	11.2	0.6	0.6	20.1	14.4	4.3	5.9
<b>Weighted Avg.</b>		<b>23.9</b>	<b>19.8</b>	<b>1.7</b>	<b>1.6</b>	<b>11.1</b>	<b>9.8</b>	<b>6.4</b>	<b>7.3</b>
<b>Domestic</b>									
ADRO IJ	2,940	6.2	5.5	0.5	0.4	3.1	2.7	8.2	9.0
INDY IJ	722	12.1	8.3	0.6	0.5	5.5	4.6	4.6	6.6
TOBA IJ	632	-	11.3	9.9	8.8	23.0	9.3	(27.5)	17.9
KEEN IJ	214	9.9	5.0	1.0	0.8	7.3	3.8	10.5	17.1
<b>Weighted Avg.</b>		<b>15.1</b>	<b>15.5</b>	<b>1.9</b>	<b>1.7</b>	<b>7.7</b>	<b>6.3</b>	<b>5.5</b>	<b>9.0</b>

Source: Company, Bloomberg, KBVS Research

*PGEO trades at a 15% discount to geothermal peers on 2026F EV/EBITDA (9.3x vs 10.8x) despite leading installed capacity and superior asset pipeline.*

## Industry Outlook

Indonesia holds immense geothermal energy potential, estimated at 29,544 MW, yet official utilization remains relatively low only 4.9%, or 1,439 MW, based on the National Energy General Plan (RUEN) 2015 data. However, based on recent field confirmations, installed capacity is estimated to have reaches 10–11% utilization. The major resources are in Sumatra (9,623 MW) and Java (7,933 MW), contributing to a total of 23,592 MW. Under Presidential Regulation No. 112/2022, PLN targets a significant increase in geothermal power plant (PLTP) capacity from 133 MW in 2025 to 5,157 MW by 2034, accounting for 18.8% of the total planned renewable energy (EBT) development under the RE Base scenario. Notably, PGEO already holds 34% of the planned geothermal development pipeline. According to RE Base scenario for electricity production by fuel type, geothermal generation is projected to rise from 17,122 GWh in 2025 to 57,470 GWh by 2034. Overall, renewable energy is expected to contribute 13.6% of total power generation in 2025 and 29.7% in 2034, while geothermal share is projected at 4.7% in 2025 and 9.9% by 2034.

Indonesia's geothermal industry presents a structural growth story..

### Exhibit 22. Indonesia's Renewable Energy Potential and Installed Capacity

No	Type of Energy	Potential (MW)	Installed Capacity (MW)	Utilization (%)
1	Geothermal	29,544	1,439	4.9
2	Hydro	75,091	4,827	6.4
3	Mini-micro Hydro	19,385	197,4	1
4	Bioenergy	32,654	16,710	5.1
5	Solar	207,898 MW (4.80 kWh/m <sup>2</sup> /day)	78,5	0.04
6	Wind	60,647 MW (≥ 4 m/s)	3,1	0.01
7	Ocean Wave	17,989	0,3	0.002

.. with only 4.9% of its 29.5 GW geothermal potential, underscoring vast untapped opportunity.

Source: Presidential Regulation No. 22 of 2015 regarding the National Energy General Plan (RUEN)

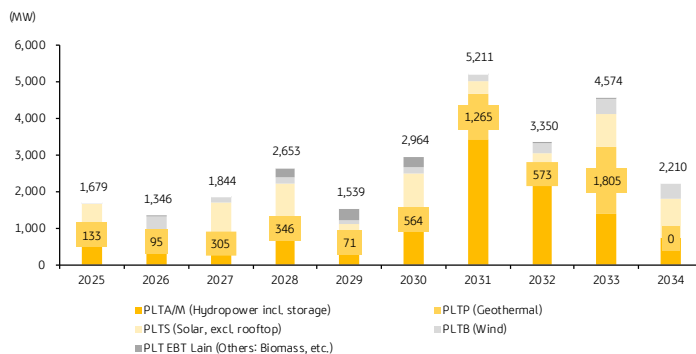
### Exhibit 23. Indonesia's Geothermal Energy Potential

No	Island	Energy Potential (Mwe)						
		Resource		Reserve			Total (MW)	Installed Capacity (MW)
		Speculative	Hypothetical	Inferred	Probable	Proven		
1	Sumatra	2,161	1,561	3,780	760	1,361	9,623	1,146
2	Java	1,119	1,303	3,489	257	1,765	7,933	1,304
3	Bali	70	21	104	110	30	335	-
4	Nusa Tenggara	219	134	668	199	34	1,254	24
5	Kalimantan	151	18	6	-	-	175	-
6	Sulawesi	1,359	350	1,032	162	150	3,053	124
7	Maluku	560	80	496	6	2	1,144	-
8	Papua	75	-	-	-	-	75	-
Total		5714	5,714	3,467	9,575	1,494	3,342	23,592

Java and Sumatra hold 74.4% of Indonesia's 23.6 GW geothermal potential, yet less than 11% has been developed.

Source: Power Supply Development Plan (RUPTL) 2025–2034

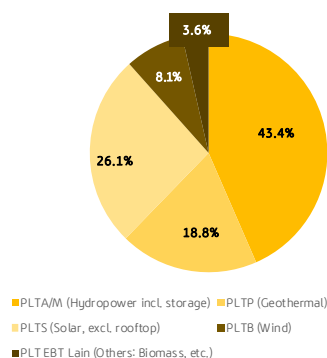
### Exhibit 24. Renewable Power Plant Development Plan (MW), RE Base (2025–2034)



Indonesia targets a geothermal capacity build-up to 5.2 GW by 2031 under the RE Base scenario, making it the second largest contributor to renewable power plant additions.

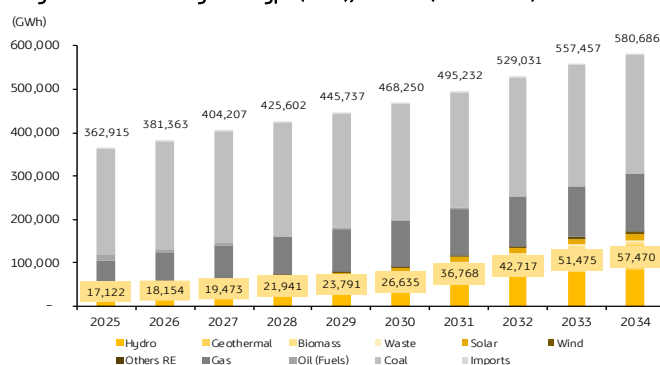
Source: Power Supply Development Plan (RUPTL) 2025–2034

### Exhibit 25. Total Renewable Power Plant Development Plan (MW), RE Base (2034)



Source: Power Supply Development Plan (RUPTL) 2025–2034

Exhibit 26. Indonesia's Electricity Generation Mix by Fuel Type (GWh), RE Base (2025–2034)



Source: Power Supply Development Plan (RUPTL) 2025–2034

Under the RE Base scenario, Indonesia's geothermal power generation is expected to more than triple from 17,122 GWh in 2025 to 57,470 GWh by 2034, boosting its share in the national electricity mix.

The expansion of PLTP faces key challenges due to a mismatch between resource location and electricity demand, as geothermal reserves are often located in low-demand regions such as Buru, Flores, and Halmahera, where electricity needs are minimal due to sparse population, low economic activity, and limited infrastructure. Key risks include oversupply and elevated reserve margins, as many new PLTPs are developed alongside existing EBT projects, leading to operational constraints since PLTPs are not suited for quick ramping or start-stop cycles, thereby creating significant Take-or-Pay (ToP) exposure. Load growth projections are also uncertain, relying heavily on potential industrial off-takers (KTT) with low confidence levels, risking further oversupply if those off-takers fail to materialize. Additionally, geothermal resource estimates often fall short post-exploration, reducing feasible capacity compared to initial plans. To mitigate these risks, PLN proposes adjusting the Commercial Operation Date (COD) of PLTPs in line with actual demand growth, exploring interconnection infrastructure, and introducing more flexible PPA schemes and contract revisions for IPPs to better align with system reliability and economic viability.

Indonesia's geothermal expansion faces key bottlenecks from demand-supply mismatch, high ToP exposure, and resource uncertainty/

## Exhibit 27. Financial Tabela

Profit and Loss (USD mn)	23A	24A	25F	26F	27F	28F	29F	30F
Revenue	406	407	420	451	525	587	637	755
COGS	(158)	(165)	(174)	(187)	(217)	(243)	(264)	(312)
Gross Profit	248	242	246	265	307	344	373	442
Operating Expenses	(22)	(32)	(24)	(26)	(30)	(34)	(37)	(44)
Operating Profit	226	210	222	238	277	310	336	398
EBITDA	337	324	343	368	428	478	519	615
Net Interest Expenses	(2)	1	3	(23)	(55)	(97)	(125)	(151)
Pre-tax Profit	241	228	225	215	222	213	211	247
Income Taxes	(77)	(68)	(67)	(64)	(66)	(63)	(63)	(74)
Profit for Period	164	160	158	151	156	150	149	174
Minority Interest	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Net Profit	164	160	158	151	156	150	149	174

Balance Sheet (USD mn)	23A	24A	25F	26F	27F	28F	29F	30F
Cash and Cash Equivalent	678	655	204	81	82	110	112	127
Account Receivable	142	132	138	145	162	185	204	232
Others	44	41	43	45	51	58	64	72
Total Current Assets	863	829	384	271	295	353	380	431
Net Fixed Assets	1,941	2,025	2,113	2,343	2,804	3,490	4,018	4,500
Others	160	144	144	144	144	144	145	145
Total Assets	2,964	2,997	2,641	2,758	3,243	3,987	4,542	5,077
ST Debt	16	17	22	28	112	246	343	432
Payables	108	107	111	118	132	150	165	188
Others	119	104	115	122	137	156	171	195
Total Current Liabilities	244	227	247	268	380	552	680	815
LT Debt	316	331	437	495	829	1,365	1,754	2,110
Others	433	431	431	431	431	431	431	431
Total Liabilities	993	989	1,115	1,194	1,640	2,347	2,865	3,356
Minority Interest	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Total Equity	1,971	2,009	1,526	1,564	1,603	1,640	1,677	1,721

Cash Flow (USD mn)	23A	24A	25F	26F	27F	28F	29F	30F
Net Profit	164	160	158	151	156	150	149	174
D&A	110	109	122	131	152	170	184	218
Changes in Working Capital	(27)	(5)	7	5	6	8	6	10
Operating Cash Flow	246	264	287	287	314	327	339	402
Capital Expenditure	(148)	(195)	(210)	(361)	(613)	(857)	(712)	(701)
Others	(22)	18	-	-	-	-	-	-
Investing Cash Flow	(169)	(177)	(210)	(361)	(613)	(857)	(712)	(701)
Net - Borrowing	(60)	(110)	(7)	(49)	300	558	376	314
Other Financing	268	(272)	0	(0)	(0)	(0)	(0)	(0)
Financing Cash Flow	208	(382)	(6)	(49)	300	558	376	314
Net - Cash Flow	285	(295)	71	(123)	1	28	2	15
Cash at Beginning	132	417	133	204	81	82	110	112
Cash at Ending	417	133	204	81	82	110	112	127

Key Ratios	23A	24A	25F	26F	27F	28F	29F	30F
Gross Profit Margin (%)	61.0	59.5	58.6	58.6	58.6	58.6	58.6	58.6
Operating Profit Margin (%)	55.6	51.6	52.8	52.8	52.8	52.8	52.8	52.8
EBITDA Margin (%)	82.9	79.5	81.6	81.6	81.5	81.5	81.5	81.5
Pre-Tax Margin (%)	59.3	56.0	53.6	47.7	42.3	36.3	33.2	32.8
Net Profit Margin (%)	40.3	39.3	37.6	33.5	29.7	25.5	23.3	23.0
Debt to Equity (x)	0.2	0.2	0.2	0.3	0.4	0.7	1.0	1.1
Net Gearing (x)	(0.2)	(0.2)	0.1	0.2	0.4	0.7	0.9	1.1
ROAE (%)	8.2	7.9	7.6	7.2	7.3	6.9	6.7	7.7
ROAA (%)	6.0	5.4	5.6	5.6	5.2	4.1	3.5	3.6

Major Assumptions	23A	24A	25F	26F	27F	28F	29F	30F
Installed Capacity (MW)	682	627	727	737	902	1,017	1,112	1,427
Production Volume (GWh)	4,735	4,828	5,211	5,293	6,498	7,288	7,828	10,012

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