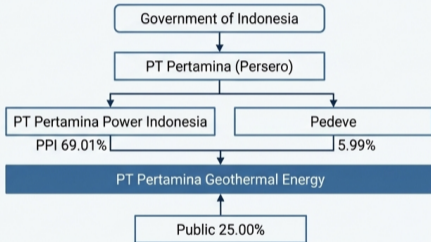


# PGEO Raises Rp9.1 Trillion in Indonesia's Largest Geothermal IPO at Rp875 per Share

## Deal Term Sheet

<b>Company:</b>	PT Pertamina Geothermal Energy Tbk
<b>Ticker:</b>	PGEO
<b>Exchange:</b>	IDX (BEI)
<b>IPO Date:</b>	February 2023
<b>Offer Price:</b>	Rp875
<b>Price Range:</b>	Rp820–Rp945
<b>Shares Offered:</b>	10.35B (25.0%)
<b>Total Proceeds:</b>	Rp9.06T (~USD609M)
<b>Greenshoe:</b>	Not Disclosed
<b>Free Float:</b>	25.0%
<b>Use of Proceeds:</b>	~85% development / ~15% debt repayment

## Simplified Corporate Structure Diagram



## Implied Market Cap

<b>Low Rp820</b> = USD2.28B	<b>Mid Rp875</b> = USD2.43B	<b>High Rp945</b> = USD2.63B
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# Five Structural Advantages Make PGEO a Rare Contracted-Revenue Renewable Compounder

1

**Zero fuel cost exposure insulates margins from commodity cycles**

82.6% EBITDA margin (FY2020)

2

**Take-or-pay PLN contracts lock in ~24 years of revenue visibility**

23.6-yr weighted avg remaining tenor

3

**82% market share of Indonesian geothermal with 13 concessions and no credible domestic challenger**

1,877 MW total installed

4

**Indonesia holds 40% of global geothermal reserves – 10.4% capacity CAGR projected to 2030**

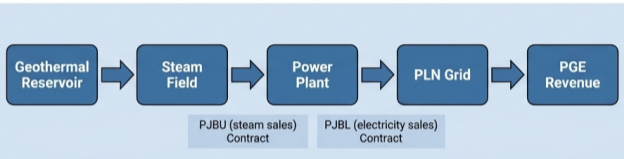
~6.2 GW by 2030 vs ~2.8 GW today

5

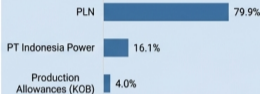
**Tariff escalation linked to US PPI provides built-in USD-indexed revenue growth**

+3.9% revenue growth 9M2022

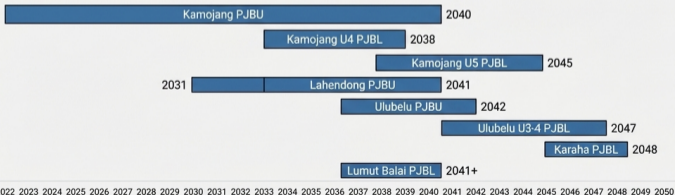
# Take-or-Pay PLN Contracts Cover 96% of Revenue with ~24-Year Weighted Average Remaining Tenor



## Revenue Sources (H1 2022)



## PPA/ESC Contract Expiry by Working Area



**Blended Tariff**  
~USD83/MWh (H1 2022)

**Steam base price**  
USD0.042-0.069/kWh

**Electricity base tariff**  
USD0.075-0.114/kWh

**TOP threshold**  
72-90% of contracted capacity

# Kamojang and Ulubelu Generate 68% of Segment Revenue from 1,877 MW Across 13 Concessions

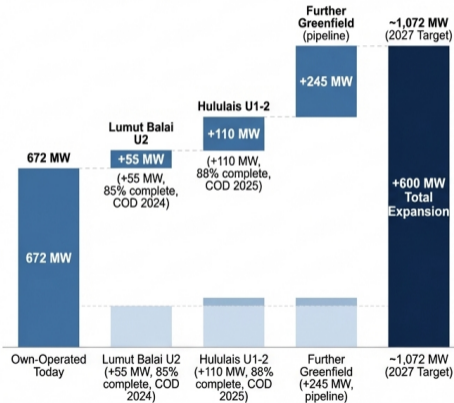
Asset	Location	Installed MW	Model	PPA Expiry	Gross Margin	Revenue Share
<b>Own-operated</b>						
Kamojang	West Java	235 MW	Steam+Power	to 2040-2045	76.0%	37.8%
Lahendong	North Sulawesi	120 MW	Steam+Power	to 2031-2047	58.3%	21.4%
Ulubelu	Lampung	220 MW	Steam+Power	to 2042-2047	51.4%	30.1%
Lumut Balai	South Sumatra	55 MW	Power	to 2041+	14.4%	8.9%
Karaha	West Java	30 MW	Power	to 2048	-146.0%	1.7%
Sibayak	North Sumatra	12 MW	Steam (declining)	2036	N/A	N/A
<b>Subtotal Own: 672 MW</b>						
<b>KOB</b>						
Darajat	West Java	271 MW	271 MW	Star Energy	to 2042	
Salak	West Java	377 MW	377 MW	Star Energy	to 2040	
Wayang Windu	West Java	227 MW	227 MW	Star Energy	to 2039	
Sarulla	North Sumatra	330 MW	330 MW	Sarulla Ops	to 2048	
Bedugul	Bali		0 MW	Bali Energy (blocked)		
<b>Subtotal KOB: 1,205 MW</b>						
<b>Total: 1,877 MW</b>						
<b>Development</b>						
Hululais			110 MW	under construction		
Lumut Balai U2			55 MW	under construction		

negative margin

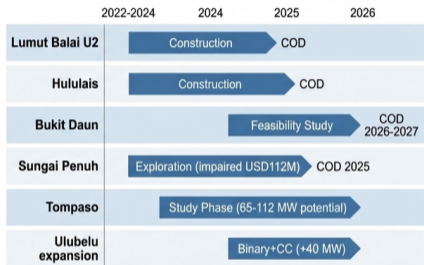
ESC expires 2039 (within ~16 years)

# 165 MW Under Construction Targets 2025-2026 COD, with 600 MW Total Expansion Planned by 2027

## Capacity Build-Up (MW)



## Project Stages & Key Stats



Implied capacity CAGR  
13.6% (2022-2027)

Projected capex  
USD250M (2023) and  
USD350M (2024)

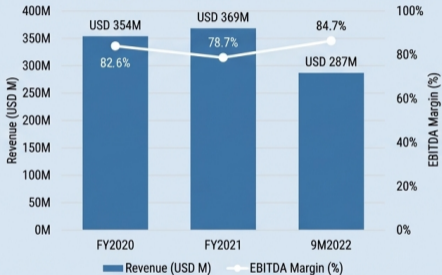
~85% of IPO proceeds  
allocated to development

RUPTL targets 6.2 GW  
geothermal by 2030



# Tariff Escalation Drove 4% Revenue Growth in FY2021 While EBITDA Margins Held Above 78%

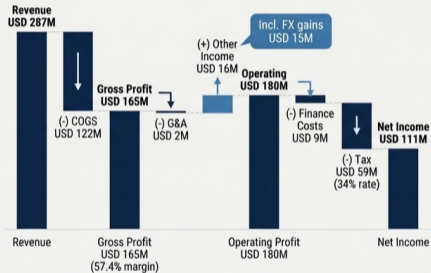
## Revenue & EBITDA Margin Trends



FY2020 adjusted revenue grew 7.8% like-for-like

Net profit 9M2022 +67.8% YoY

## 9M2022 Earnings Waterfall (USD M)

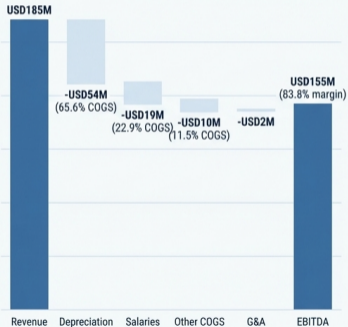


**One-off items:** FX gain USD 15.4M in 9M2022 and Sungai Penuh impairment USD 47M in FY2021

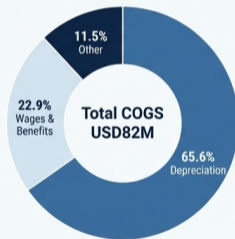
FY2019 revenue USD 667M not comparable (PSAK 72 gross-up)

# Near-Zero Fuel Costs and 66% Depreciation Share of COGS Create Powerful Natural Operating Leverage

## H1 2022 Cost Structure & EBITDA



## H1 2022 COGS Composition



## Unit Cost & Revenue Trends

### Total Cost/MWh



### Revenue/MWh



### Spread/MWh

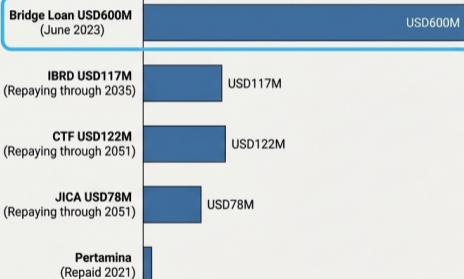


**Fuel cost: USD0** – geothermal has no feedstock.

**Related-party costs:** IT integration fee USD425K to Pertamina (FY2021), management deems arm's-length.

# Net Debt/EBITDA at 2.9x Masks a USD600M Bridge Loan Maturing June 2023 Requiring Immediate Refinancing

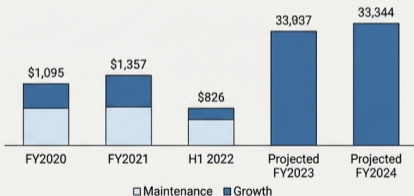
## Debt Maturity Profile (USD Millions)



## Net Debt / EBITDA Trend



## Capital Expenditure Split (USD K, Projected USD M)



### Key Financial Metrics:

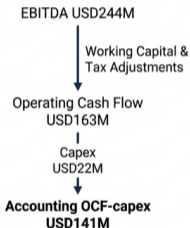
IBRD, Avata Equity (FiED): 2.9x  
Net Debt/EBITDA at 2.9x

CTF (Dens strategth): 2.5x  
JICA (Bretls totatenth): 2.9x

**Critical Refinancing Needs:** Bridge loan unsecured, no covenants, but refinancing via planned USD600-800M green bond issuance is critical. Prospectus pages 13-14 partially extracted – detail may be incomplete.

# 90% FCF Conversion on the Base Business – But Projected USD600M Capex Through 2024 Will Absorb IPO Proceeds

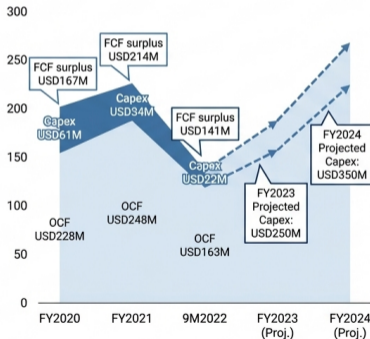
## 9M 2022 Cash Flow Bridge & FCF Definition



FCF (EBITDA minus capex)  
= USD221M

**FCF/EBITDA = 90.8%**

## Historical & Projected Cash Flow (USD M)



## Dividend Policy & IPO Use of Proceeds

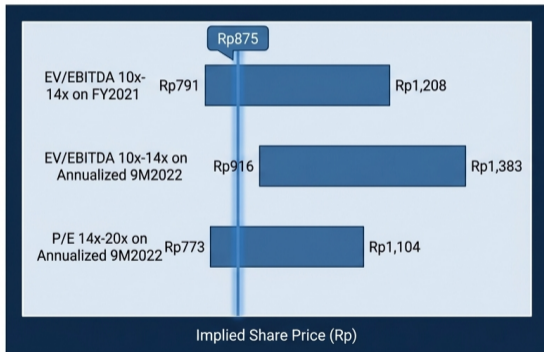
### Dividend Policy

- Max 50% of net income from FY2023+
- FY2021 dividend USD30M
- FY2022 interim dividend USD70M declared Dec 2022

### IPO Proceeds Deployment

- ~USD517M Development (~85%)
- Up to USD100M Loan Repayment (~15%)

# IPO Prices at 9.6-10.8x EV/EBITDA – Reasonable for Contracted Geothermal, Limited Entry Discount



Implied Valuation Ranges per Methodology

## Valuation Assumptions & Metrics

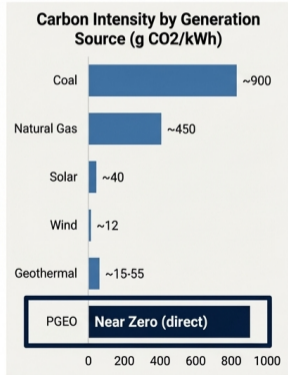
IPO Price	Rp875
Market Cap	USD2.43B
EV	USD3.13B
EV/EBITDA (FY2021)	10.8x
EV/EBITDA (Ann. 9M2022)	9.6x
P/E (Ann. 9M2022)	~16x
P/E (FY2021)	~29x

**Peer comparison note** – Prospectus states valuation based on DCF, EV/EBITDA, and P/E from comparable regional listed companies but does not disclose specific peer multiples [EXTERNAL DATA REQUIRED FOR PEER SCATTER].

**DCF note:** WACC and terminal growth assumptions not disclosed in prospectus. At 10.8x FY2021 EBITDA, implied WACC is consistent with 8-9% for Indonesian geothermal utilities.

# Near-Zero Carbon Intensity and 13 Gold PROPER Awards Support a Credible Energy Transition Positioning

Robust ESG Framework and Competitive Renewable Energy Profile



### ESG Scorecard

Metric	Status	Evidence
Carbon Emissions	Disclosed	Near-zero direct emissions
PROPER Rating	Disclosed	13 Gold awards (Kamojang 12 consecutive)
Sustainable Fitch	Disclosed	ER2 Good Performance
Reforestation	Disclosed	627,450 trees, 588 hectares
Green Financing	Planned	USD600-800M green bond (H1 2023)
Net Zero Target	Partial	Indonesia 2060 NZE, Pertamina USD8.3B RE capex 2020-2024
Third-Party Audit	Partial	EY reviewed financials, no standalone ESG audit disclosed

### LCOE Competitive Advantage

**~USD75/MWh**  
Competitive vs coal USD78/MWh

### CO2eq Reduction Target

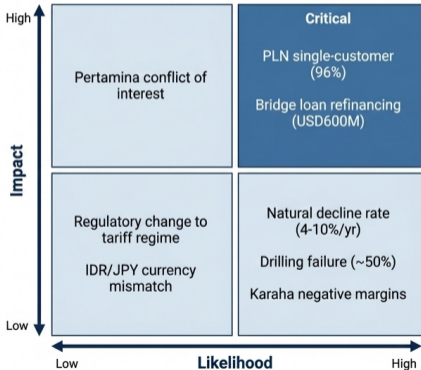
**15.67M tons**  
Target by 2030

### Indonesia Renewable Target

**23%**  
Target by 2025

# PLN Concentration, Bridge Loan Refinancing, and 50% Drilling Failure Rate Demand Closest Monitoring

## Risk Heat Map



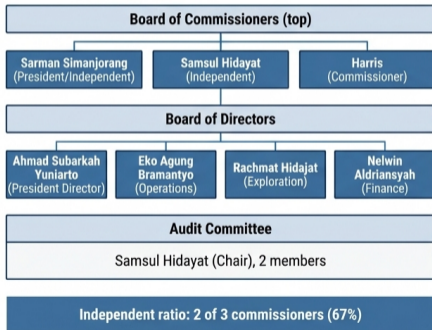
## Risk Register

Risk	Sector/Specific	Likelihood/Impact	Mitigation	Status
PLN concentration 96%	Sector-Wide	High/High	Partial mitigation (AAA-rated counterparty)	
<b>WEAKEST MITIGATIONS: Bridge loan refinancing, Karaha losses, Water permit</b>				
Bridge loan USD600M June 2023	PGE-Specific	High/High	Partial (Pertamina support letter)	
Drilling success ~50%	Sector-Wide	High/Medium	Partial (multi-well programs)	
Natural decline 4-10%/yr	Sector-Wide	High/Medium	Strong (make-up well programs)	
Karaha negative margins	PGE-Specific	High/Low	None disclosed	
Water permit Ulubelu	PGE-Specific	Medium/Medium	In process with Governor	
Sungai Penuh full impairment	PGE-Specific	Realized	USD112M written off	

# Government Retains ~75% Indirect Control Post-IPO — PLN Revenue Dependence Is Structural by Design

## Corporate Governance Structure & Related-Party Transactions Summary

### Board & Audit Structure



### Related-Party Transaction Summary

Party	Transaction	Annual Value	Risk Flag
PLN (Persero)	Revenue (electricity/steam)	USD229M (9M2022)	High concentration
PT Indonesia Power	Revenue (steam)	USD47M (9M2022)	Dispatch risk
PT Pertamina	Long-term loans outstanding	USD327M	Below-market rates possible
PT Pertamina	Other payables	USD26M	Operational charges
Pertamina Group	IT/services purchases	USD6M (9M2022)	Low materiality
State-owned banks	Cash deposits	USD230M	Counterparty overlap

# Bull Case Implies Rp1,200+ on Full Capacity Build; Bear Case Falls Below Rp700 on Execution Failure

## BULL CASE (Rp1,200-1,400 TARGET)

1. 600 MW capacity addition by 2027 lifts annualized revenue to ~USD550M (Kamojang-equivalent yield applied)
2. EBITDA margin sustains 82%+ as tariff escalation outpaces cost inflation – 9M2022 margin was 84.7%
3. Green bond prices at favorable terms, unlocking full pipeline funding and valuation re-rate to 12-14x EV/EBITDA.

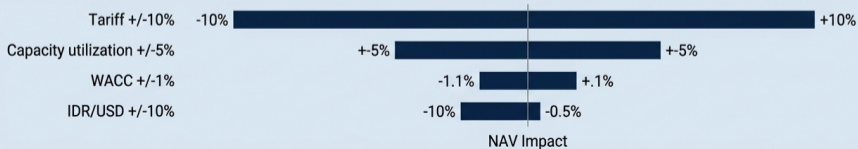
## BASE CASE (IPO @ Rp875 ~10x EV/EBITDA on FY2021)

Requires: Lumut Balai U2 and Hululais deliver on schedule, bridge loan refinanced by June 2023, EBITDA margins sustain 78-82%, no PLN curtailment expansion.

## BEAR CASE (Rp600-700 TARGET)

1. Bridge loan refinancing delayed or repriced at punitive rates – USD600M maturity with only a comfort letter
2. Drilling failures on Hululais and Bukit Daun repeat Sungai Penuh pattern (USD112M impaired) – 50% success rate is prospectus-stated
3. PLN dispatch curtailment expands beyond Kamojang – 6.7% steam sales decline seen in 9M2022.

## SENSITIVITY TORNADO CHART (NAV IMPACT)



# PARTICIPATE – Contracted Geothermal Cash Flows at Sub-10x EBITDA Offer Genuine Risk-Reward Asymmetry

## PARTICIPATE

At 9.6x annualized EV/EBITDA, PGEO prices below global geothermal peers for a business generating 90% FCF conversion on contracted, near-zero-carbon revenue. The bridge loan is the key near-term risk, but Pertamina backing and the green bond pipeline provide a credible path to resolution.

**Single biggest reason to own:** 24-year contracted revenue with built-in USD-indexed tariff escalation.

**Single biggest reason to avoid:** USD600M bridge loan refinancing risk with no committed backup facility.

**Attractive entry:** below Rp825 (~9x annualized EV/EBITDA).

Revenue (9M2022)  
**USD287M**

EBITDA Margin (9M2022)  
**84.7%**

Net Debt/EBITDA  
**2.9x**

Installed Capacity  
**1,877 MW**

Own-Operated Capacity  
**672 MW**

Blended Tariff  
**~USD83/MWh**

FCF Conversion  
**90.8%**

Free Float  
**25.0%**

IPO Proceeds  
**~USD609M**

Primary Use  
**~85% Development**

Offer Price  
**Rp875**

Implied Market Cap  
**USD2.43B**

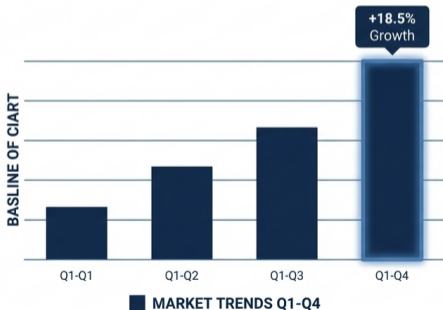
	FY2020	FY2021	9M2022
Revenue	354	369	287
EBITDA	292	290	244
EBITDA Margin	82.6%	78.7%	84.7%

	FY2020	FY2021	9M2022
Net Income			
Net Debt	–	823	700
Capex	61	34	22
FCF	231	256	221

All in USD millions.

# EQUITY RESEARCH INSIGHTS

Subtitle: High-Contrast Data Analysis & Key Performance Indicators



## KEY INSIGHTS & STRATEGY

- Strong **upward momentum** in emerging sectors.
- Focused investment in **technology** and **innovation**.
- **Optimized portfolio** with **reduced volatility**.
- Forward-looking **guidance** remains **positive**.