

INDONESIA FUTURE GAS DEMAND & STRATEGY TO FULFILL IT

MENUJU SWASEMBADA PRODUKSI LPG NASIONAL

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PIPELINE AND
ENERGY SUMMIT



EXCELLENCE TURN AROUND (TA) ACTIVITIES TO MAINTAIN PLANT REABILITY & INTEGRITY PT PERTA- SANTAN GAS FACILITIES

(OTOBOSZER)

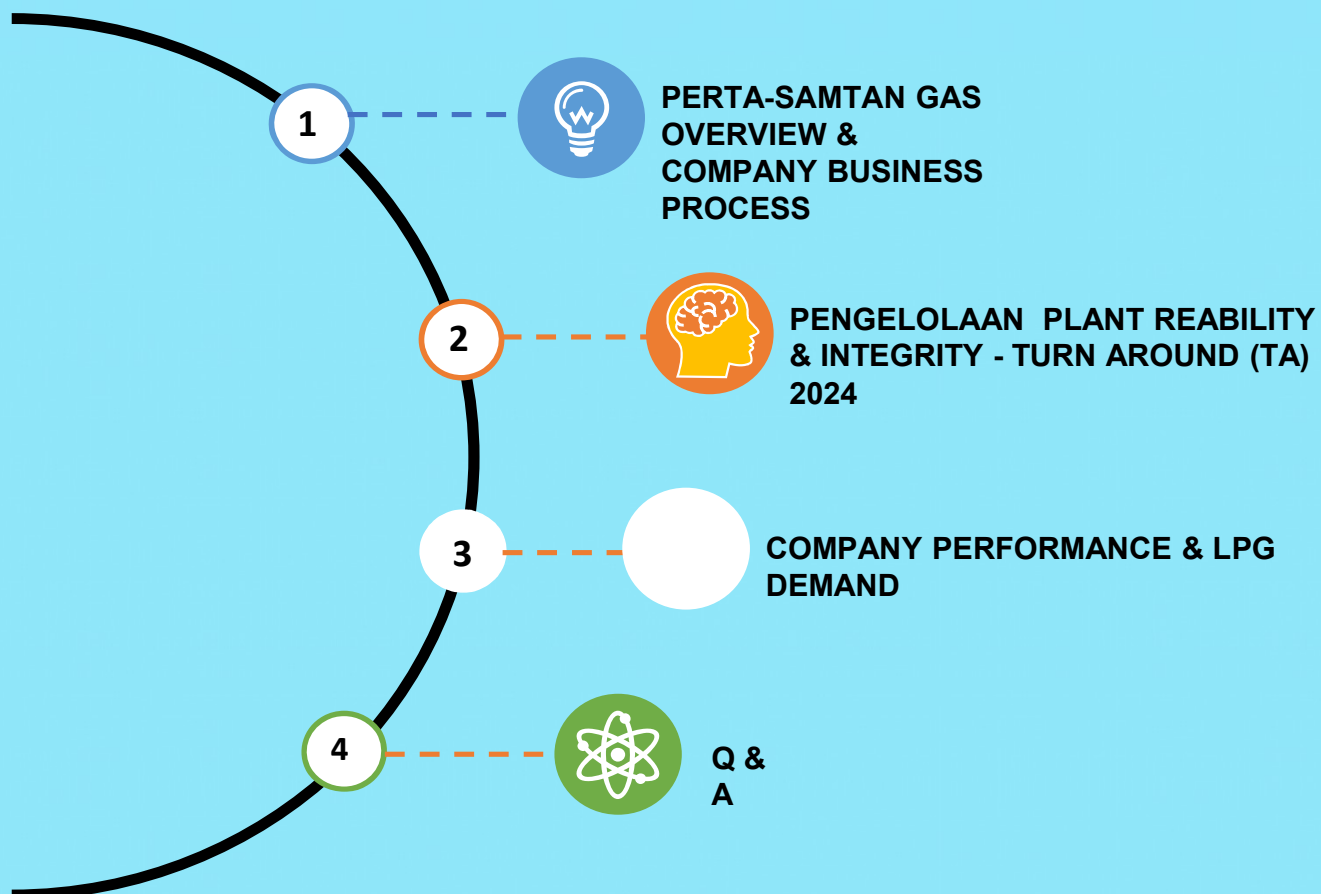
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“MENUJU SWASEMBADA
PRODUKSI LPG NASIONAL”

JAKARTA, 17 JUNE 2025



AGENDA



1

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PERTA-SAMTAN GAS OVERVIEW & COMPANY BUSINESS PROCESS



PERTA-SAMTAN GAS OVERVIEW



- PT Perta-Samtan Gas is a Joint Venture Company (JV) between PT Pertamina Gas and Samtan International (South Korea), with the composition of share ownership as follows:
 - PT Pertamina Gas : 66%
 - Samtan International (STI) : 34%
- PT Perta-Samtan Gas was established on May 7, 2008, with the aim of processing natural gas in South Sumatra which has a C3⁺⁺ content into LPG products.
- Construction period of South Sumatera NGL Plant (SSNP & Commissioning : 01 July 2010 – 30 April 2013.
- First lifting for LPG product in 06 February 2013.
- Operational & Commercial stage starting on 1 Mei 2013 – Now



COMPANY BUSINESS PROCESS



COMPANY BUSINESS PROCESS



230 MMSCFD
Lean gas back to PEP

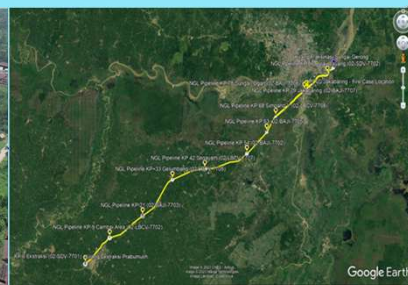
20 MMSCFD NGL



PERTAMINA
HULU ROKAN
SKG-10 - PRABUMULIH
250 MMSCFD Gas ex PEP
(Design)



Extraction Plant
Prabumulih



NGL Pipeline 86,9 km ϕ 8 Inchi
Prabu - Sungai Gerong



Fractionation Plant
Sungai Gerong

Pertamina C&T
LPG
Dome Gas
Pulau Layang



LPG



Jetty 01 - Tanker

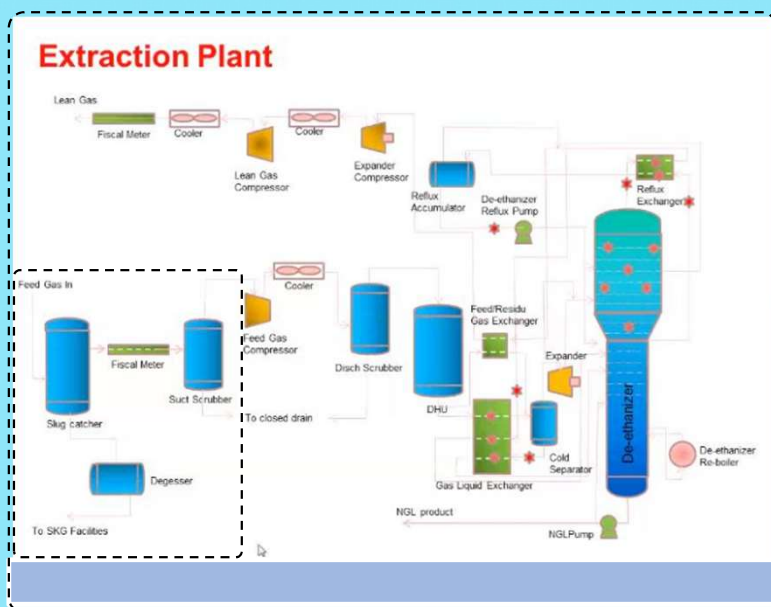
CONDENSATE Pertamina RU III



FEED GAS SKG-10 PRABUMULIH	EXTRACTION PLANT PRABUMULIH		FRACTIONATION PLANT SUNGAI GERONG		DELIVERY PRODUCT		
	LEAN GAS	NGL	LPG	CONDENSAT	GAS DOME PULAU LAYANG	PERTAMINA ISC VIA KAPAL TANGKER	PERTAMINA EP
C ₁	C ₁	-	-	-	-	-	-
C ₂	C ₂	-	**C ₂ = max 0.8 % Vol	-	**C ₂ = max 0.8 % Vol	**C ₂ = max 0.8 % Vol	-
C ₃	-	C ₃	**C ₃ & C ₄ = max 97.0 % Vol	-	**C ₃ & C ₄ = max 97.0 % Vol	**C ₃ & C ₄ = max 97.0 % Vol	-
C ₄	-	C ₄		-			-
C ₅	-	C ₅	**C ₅ & C ₅₊ = max 2.0 % Vol	C ₅	**C ₅ & C ₅₊ = max 2.0 % Vol	**C ₅ & C ₅₊ = max 2.0 % Vol	C ₅
C ₅₊	-	C ₅₊		C ₅₊			C ₅₊

** Ref. Kep. Dirjen Migas Nomor : 116.K/10/DJM/2020 tentang Standar & Mutu Spesifikasi Bahan Bakar Gas Jenis LPG yang di Pasarkan dalam Negeri

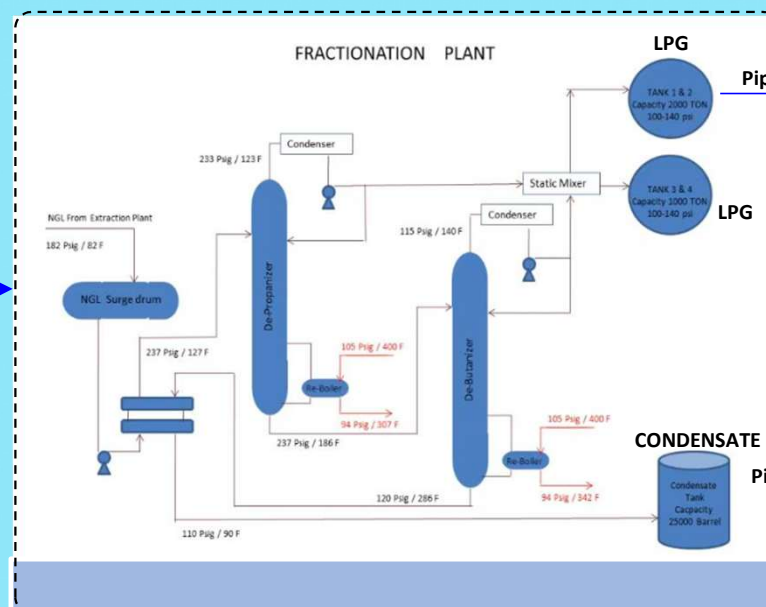
COMPANY BUSINESS PROCESS



GAS PRODUSEN

EXTRACTION PLANT
PRABUMULIH UTARA

PIPELINE 86,9 KM
Di : 8 inch



FRACTIONATION PLANT
SUNGAI GERONG



Jetty 01



COSTUMER

COMPANY BUSINESS PROCESS

Company Plant Design & Capacity

Extraction Plant Prabumulih

Description	Design	Actual
- Feed Gas (mmcf/d)	250	175
- NGL (MT/day)	931.20	740

Fractionation Plant Sungai Gerong

Description	Design	Actual
- Propane (MT/day)	159.7	550
- Mix C3+C4 (MT/day)	546	
- Condensate (MT/day)	225	190

Extraction Plant Prabumulih

Gas Turbine Compressor

- GTC Feed Gas 01-K-2101 A/B	125/87,5	125/87,5
- GTC Lean Gas 01-K-2301 A/B	115/79	115/79
- Common spare GTC 01-K-2101C/2303C	125	

Expander (mmcf/d)	250/175
--------------------------	---------

De-Ethanizer Coloum

SCORE (Single column Overhead reflux)	38 Tray
De-Propanizer Column	32 Tray
De-Buthanizer Column	35 Tray

Company Plant Design & Capacity

LPG Storage Tank Fractionation Plant Sungai Gerong

- Propane (MT)	2 x 1,000
- Mix LPG (MT)	2 X 2,000

Condensate Storage Tank Fractionation Plant Sungai Gerong

1 x 25,000 barrel	25,000
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NGL Pipeline (90 km x 8") Prabumulih to Sungai Gerong

1

LPG Product to Loading Dock Sungai Gerong Jetty 01

1

Pipeline LPG Product to Depot Pulau Layang (4.2 km x 6" & 4.2 km x 4")

1

Extraction Plant Prabumulih :

- GEG (kW)	3 x 725
- DEG (kW)	508

Fractionation Plant Sungai Gerong :

- Electricity From Pertamina RU III (kV)	2 x 6.6
- DEG (kW)	800



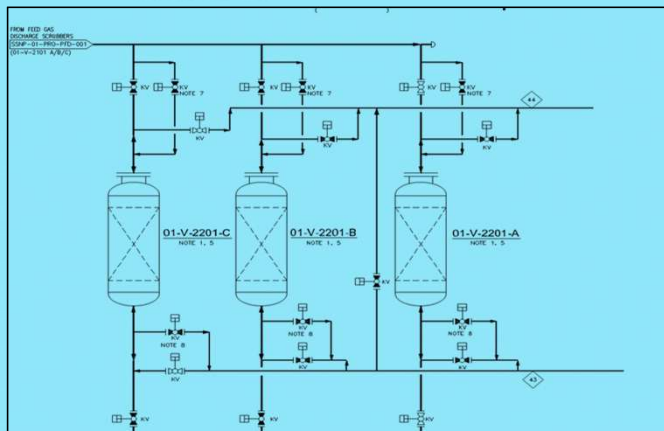
**2**

**PERTAGAS
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EXCELLENCE TURN AROUND (TA) ACTIVITIES TO MAINTAIN PLANT REABILITY & INTEGRITY PT PERTA-SANTAN GAS FACILITIES (OTOBOSZER)



BACKGROUND



PT Perta-Samtan Gas has 2 main facilities, namely the Extraction Plant in North Prabumulih & Fractionation Plant located in Sungai Gerong, inside Pertamina KPI RU 3 Sungai Gerong area. To maintain the reliability & integrity of the plant facilities, a maintenance program is needed, both **predictive maintenance & corrective maintenance** including the implementation of **Turn Around (TA)**. DHU is one reason to conduct TA activities periodically. For information the basic design for water content composition in the feed gas is 14 lb / mmscf (actual 50 -60 lb / mmscf) and company made innovation to change the molesive type to increase DCU performance from UOB as mole sieve supplier

The main work in the Perta-Samtan Gas operation carried out during Turn Around (TA) 2024 (26 August 2024 – 8 September 2024) is :

- Replacing Mole-Sieve & Repair Structure the vessel (mole sieve UI-900 UOB) Feed 200 mmscf, water content 85 lb/mmscf, life time : 30 months and max. 36 months (**IDR 5,766.215,500** Milyar)
- Dismantle/Install PSV, Gate Valve, Orbit Valve Include Crane
- Replacement & Repair KV valve 16 inch & gate valve 16 inch
- Repair Cold Isolation Reflux Pump B
- In frame Overhaul GEG A & Top Overhaul GEG B
- Re-certification PSV (CoI) Extraction (71 ea) and Fractionation (37 ea)
- Replacement Rotor Assembly(SRA) Turbo Expander
- Regen Gas Compressor Inspection & service
- Service of Radiator GEG A&B
- Annual Service UPS & Battery Charger (Extraction & Fractionation)
- Service ACB of switchgear Extraction Plant & Synchronize DEG & GEG
- Service Busduct
- Replace and setting HMI
- Service fuel gas meter

COMPANY COMMITMENT



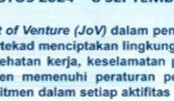
PERTA-SANTAN GAS

KONTRAKTAN BERSAMA TA 2024

27 AGUSTUS 2024 - 8 SEPTEMBER 2024

PT Perta Samtan Gas sebagai Perusahaan *Joint of Venture (JoV)* dalam pengolahan gas bumi menjadi produk LPG dan Kondensat khususnya di Area Sumatera Selatan, selalu bertekad menciptakan lingkungan kerja yang sehat, aman dan ramah lingkungan serta mengedepankan pengelolaan aspek mutu, Kesehatan kerja, keselamatan proses, keamanan dan pengelolaan lingkungan, social dan keberlangsungan bisnis serta berkomitmen memenuhi peraturan perundangan dan persyaratan lainnya lebih dari yang dipersyaratkan/beyond compliance dengan komitmen dalam setiap aktifitas di area operasi Perusahaan.

Kami manajemen PT Perta Samtan Gas dan Seluruh Kontraktor Pelaksana *Turn Around (TA)* 2024 berkomitmen dalam pelaksanaan Pekerjaan TA 2024 secara *Excellence* dengan target :



ZERO

Lost Time Injury Frequency (LTIF)
Property Damage/Significant Unplan Natural Gas Release
Penyakit Akibat Kerja (PAK)
Pencemaran Lingkungan
Gangguan Keamanan

PRABUMULIH, 23 AGUSTUS 2024
KAMI YANG BERKOMITMEN,

WANAJEMEN PT PERTA SANTAN GAS	KONTRAKTOR PELAKSANA TURN AROUND 2024
1. PARK IL KYONG TTD	1. PT SRIJASA BRIKA PERKASA TTD
2. WIDDODO BUDI SANTOSO TTD	2. PT BHATINI MITRA JAYA TTD
3. MKH IRWAN TRIMULYONO TTD	3. PT. MEGADAYA UTAMA TTD
4. MELDY DATUELA TTD	4. PT. SUCOFINDO TTD
5. AHMAD ROSYIDI TTD	5. PT. TRAKINDO UTAMA TTD
6. RICO VAN HENDRIX TTD	6. PT. TENGARAN GAS INDUSTRI TTD
7. RUDI TTD	7. PT. VALVE AUTOMATION INDONESIA TTD
8. TRI LAKSONO TTD	8. PT. FERGAS INDONESIA TTD
9. ANDI SYAR FIN TTD	9. PT. INDO FLUID TTD
	10. PT BIRO KLASIFIKASI INDONESIA TTD
	11. PT KUARTA PCWIRING PERKASA TTD
	12. PT ENERCON TTD
	13. PT. SULZER INDONESIA TTD
	14. PT. SCHNEIDER TTD

Pelaksanaan TA (Turn Around (TA) di PT Perta-Samtan Gas menetapkan komitmen Manajemen “OTOBOSZER”: **O**n **T**ime, **O**n **B**udget, **O**n **S**cope & **ZER**o Accident.

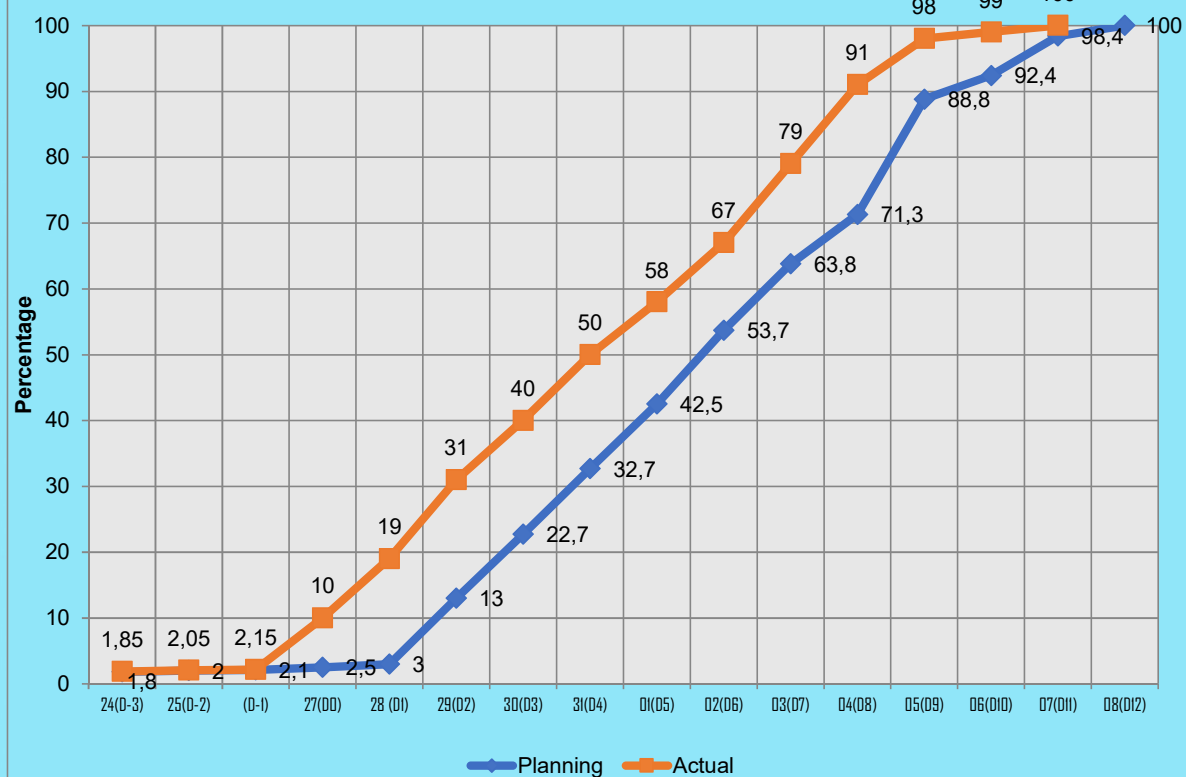
- Durasi waktu : 27 Agustus 2024 – 8 September 2024
- Lagging Indicator TRIR : **0.0**
- Perusahaan yang terlibat : **14 Perusahaan**
- Jumlah manpower : **572 employee**
- Total safe working hours : **57,984 hours**
- Budgets realization : **USD 2,158,924.47**



MONITORING PROGRESS TURN AROUND



S - CURVE TURN AROUND 2024



MANAGEMENT COMMITMENT TA ACTIVITIES 2024



PEOPLE

1. INTEGRITY
2. COMPETENCY & BEHAVIOUR/ATTITUDE
3. HSSE CULTURE
4. AKHLAK CULTURE
5. GCG



PLANT

1. PLANT AVAILABILITY FACTOR/PLANT PERFORMANCE
2. MANAGING OF PHYSICAL CONDITION/HOUSEKEEPING
3. MANAGING OF PROCESS SAFETY BARRIER
4. PLANT DEVELOPMENT



PROCESS

1. COMPANY MANAGEMENT SYSTEM
2. COMPANY POLICY & PROCEDURE
3. LPG PRODUCTION
4. FINANCIAL PERFORMANCE
5. RISK MANAGEMENT
6. COMPLIANCE STATUS



AYO SUKSESkan PELAKSANAAN TA 2024 27 AGUSTUS 2024 - 8 SEPTEMBER 2024



Kepada Seluruh Pekerja, Mitra Kerja & Kontraktor PT Perta-Samtan Gas agar selalu menjadikan **HSSE Golden Rules, HSSE Life Saving Rules dan Process Safety Fundamental** sebagai **Way Of Life** dalam setiap aktifitas di area operasi PT Perta-Samtan Gas untuk mencegah terjadinya kecelakaan kerja, property damage dan kejadian lainnya yang tidak diinginkan menuju pencapaian excellence untuk keberlangsungan Bisnis Perusahaan



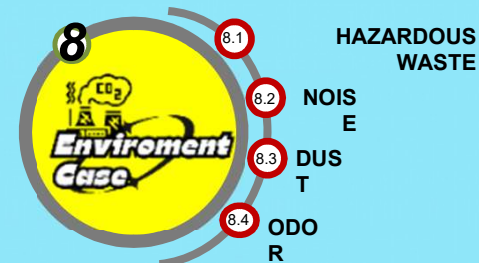
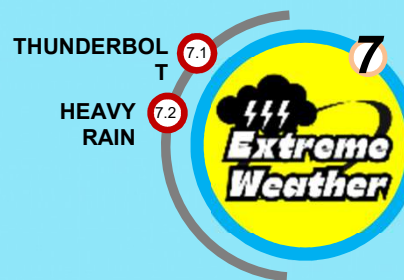
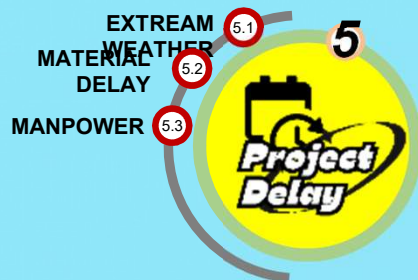
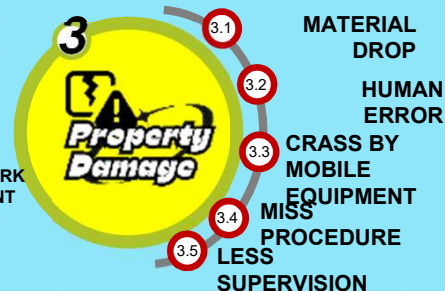
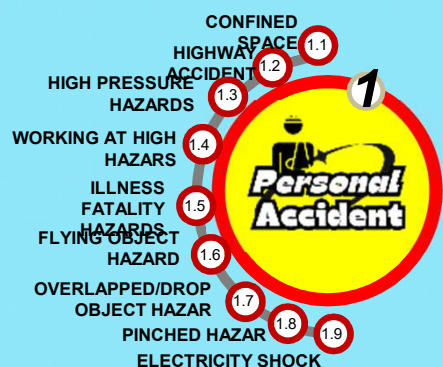
PARK IL KYONG
President Director

WIDODO BUDI SANTOSO
Vice President Director

HSSE AWARENESS PROGRAM SELAMA TA 2024

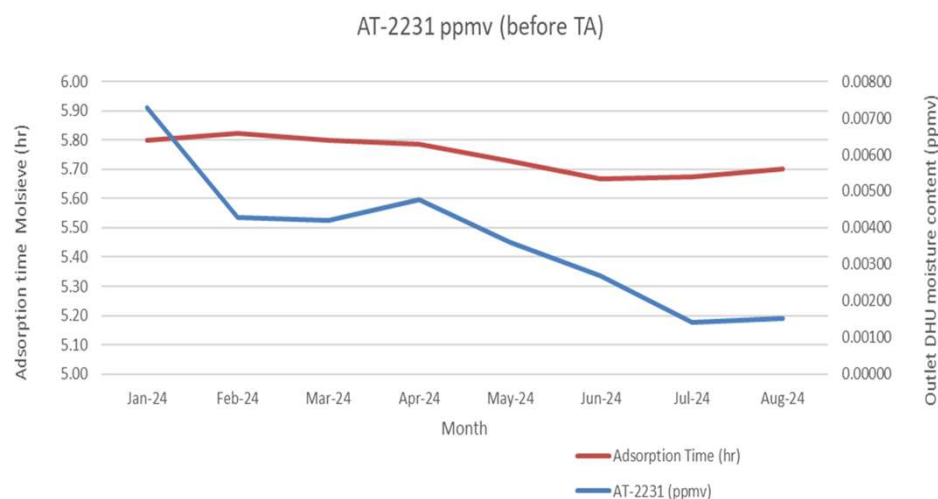


TOP RISK TURN AROUND (TA) ACTIVITIES & RISK MANAGEMENT



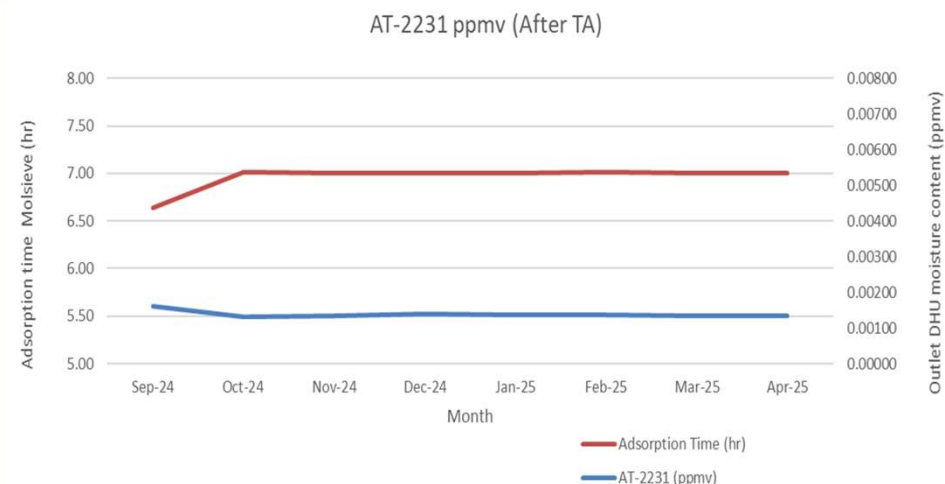
TURN AROUND (TA) MONITORING & EVALUATION

BEFORE TA



In the graph above: Mole sieve performance for January 2024 - August 2024, Mole sieve DHU moisture content readings fluctuated from 0.007 - 0.0015 ppmv, tending to decrease because the inlet water content decreased and the adsorption time was only 5.8 hours and tended to decrease to 5.6 hours, which indicates that Molsieve's ability has decreased.

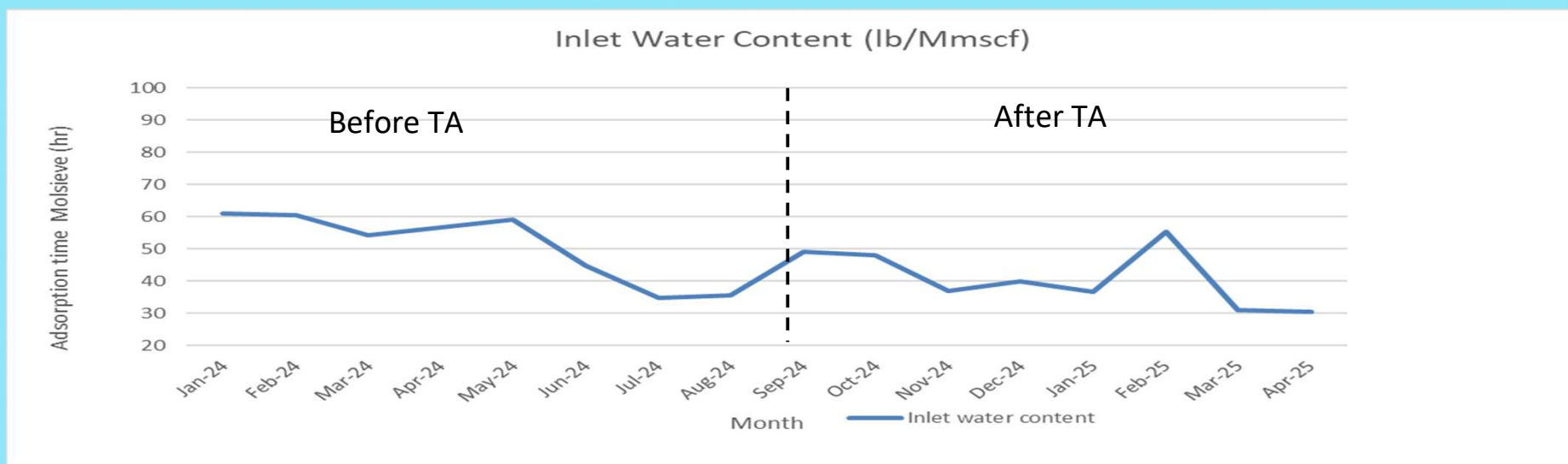
AFTER TA



In the graph above: Mole sieve performance after TA Sep 2024 - April 2025 or 8 months of operation, the moisture content reading is relatively stable at 0.001 ppmv and the adsorption time increases before TA 5.8 hours and after TA 2025 7 hours and the outlet moisture content reading is small, this shows high mole sieve performance.

TURN AROUND (TA) MONITORING & EVALUATION

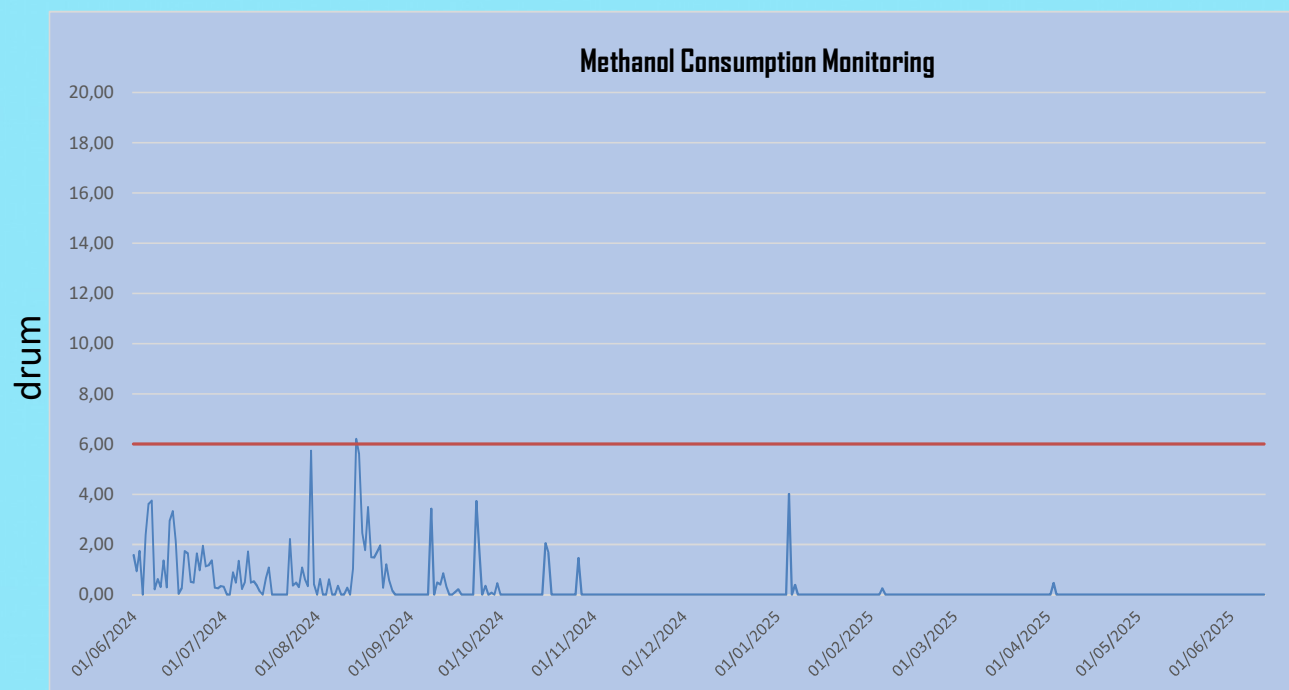
Setelah dilakukan Turn Around (TA) tanggal 26 Agustus – 8 September 2024



Water content inlet DHU trend to decrease form January 2024 until now, although still there are fluctuation, this is effect to performance mole sieve, we can see before TA (aug-2024) moisture content outlet DHU decrease again.

TURN AROUND (TA) MONITORING & EVALUATION

Setelah dilakukan Turn Around (TA) tanggal 26 Agustus 2024 – 8 September 2024



Methanol consumption has been decreased after TA 2024. Operation monitoring in 2025 still : 0 drum

TURN AROUND (TA) MONITORING & EVALUATION

Performance Mole sieve after Turn Around (TA) 2024



1. Performance mole sieve increase After TA, indicated Adsorption Time increase from 5.8 hours to 7 hours with outlet moisture content still stable 0.0013 ppmv after 8 month operation.
1. NGL Production still stable After TA 165788.06 MT for 8 month operation compare before TA 168872.15 MT, slightly decrease due to not only performance mole sieve effect to NGL Production, but also CO₂ content, volume feed gas and also condition upstream and downstream PSG Plant
1. Performance mole sieve significantly for methanol consumption reduce 0.51 litter methanol/MT NGL to 0.017 litter Methanol/MT NGL

**3**

COMPANY PERFORMANCE & LPG DEMAND

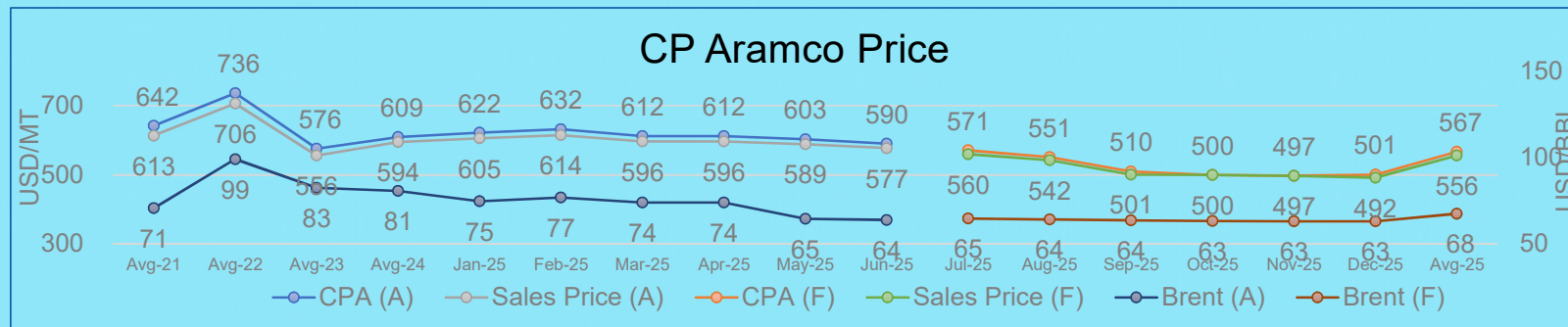
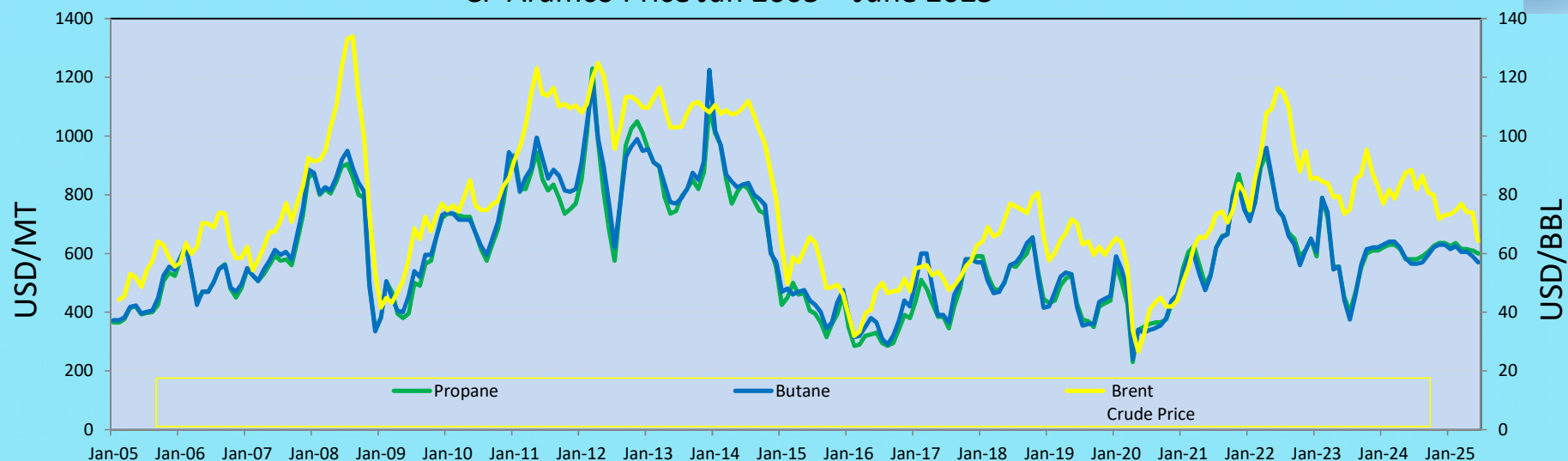
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LPG PRICE MONITORING

CP Aramco Price Jan 2005 - June 2025



PRODUCTION PERFORMANCE vs LPG DEMAND SUMSEL & INDONESIA

2013 – 2025*

FEED GAS : 873,918 mmcf

LPG Production : 2,305,900 MT

Condensate Production : 7,258,176 Barrels

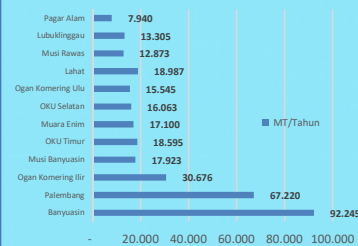
: 51,5 % Kebutuhan Sumsel
366,730 MT

: 2,23% Kebutuhan Nasional
8,23 Juta MT



Data Production : *Cut Off 31 May 2025

Kebutuhan LPG di Sumatera Selatan 2025



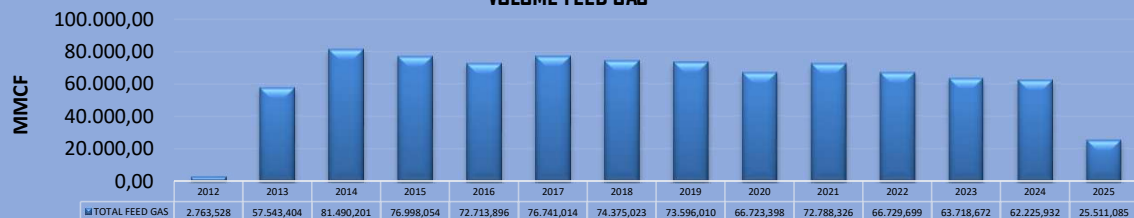
Sumsel usul kuota LPG 3 kg sebanyak **366.730 MT** pada 2025. Palembang (ANTARA) - Dinas Energi dan Sumber Daya Mineral (ESDM) Provinsi Sumatera Selatan mengajukan kuota LPG tahun ini 3 kilogram atau 3 kg bersubsidi sebanyak 366.730 metrik ton (MT) untuk tahun 2025.

Supply dan Demand LPG Indonesia lima tahun terakhir



Sumber Data : Laporan Kinerja Tahun 2024 Dirjen Migas

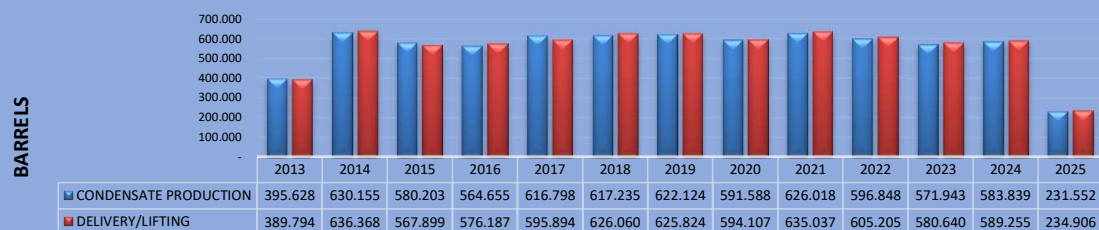
VOLUME FEED GAS



LPG PRODUCTION AND DELIVERY PERFORMANCE

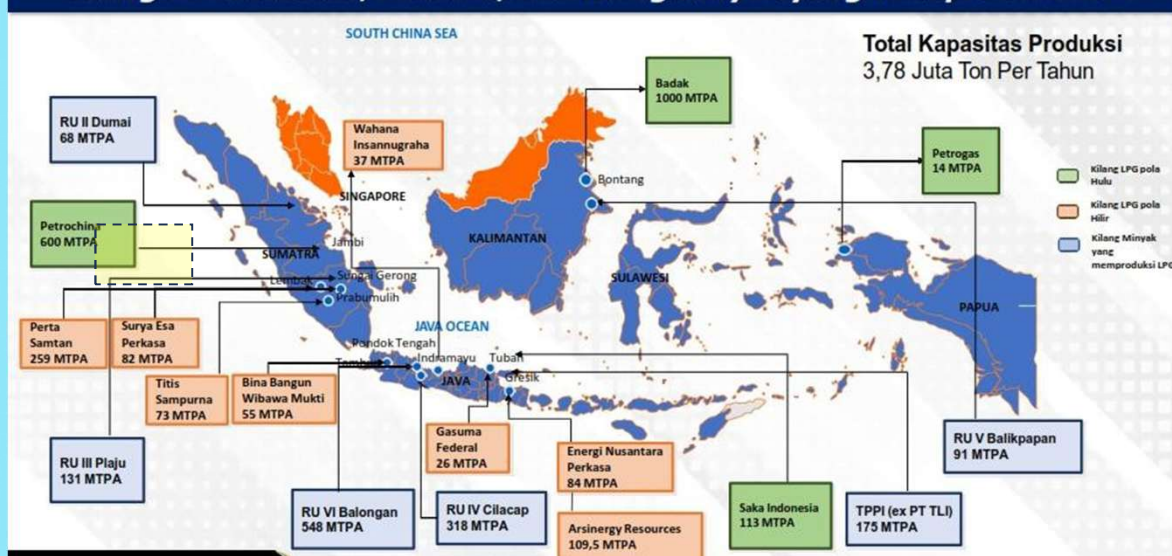


CONDENSATE PRODUCTION AND DELIVERY PERFORMANCE



PERUSAHAAN PENGHASIL LPG DI INDONESIA

Kilang LPG Pola Hulu, Pola Hilir, dan Kilang Minyak yang memproduksi LPG



NAMA BADAN USAHA	LOKASI	KAPASITAS (TON / HARI)	KAPASITAS (MTPA)
Kilang Minyak Yang Memproduksi LPG			
RU II DUMAI	DUMAI		68
RU III PLAJU	Plaju		131
RU IV CILACAP	Cilacap		318
RU V BALIKPAPAN	Balikpapan		91
RU VI BALONGAN	Balongan		548
TPPI (ex.PT TLI)	Tuban		175
Sub Total			1,331
Kilang LPG Pola Hulu			
PT. Badak NGL	Bontang	2,740	1,000
PT. Petrogas	Basin	38	14
PT. Petrochina	Jabung	1,644	600
PT. Conoco Philips	Belanak	1,439	525
PT. Saka Indonesia	Ujung Pangkah	310	113
Sub Total			2,252
Kilang LPG Pola Hilir			
PT. Maruta Bumi Prima*	Langkat	46.57	17
PT. Pertamina (Persero)	Mundu	101	37
PT. Titis Sampurna	Prabumulih	200	73
PT. Bina Bangun Wibawa Mukti	Tambun	151	55
PT. Surya Esa Perkasa	Lembak	225	82
PT. Wahana Insannugraha	Cemara	102	37
PT. Tuban LPG Indonesia	Tuban	480	175
PT. Yudistira Energi	Pondok Tengah	160	58
PT. Gasuma Federal Indonesia	Tuban	71	26
PT. Pertasamtan Gas	Sungai Gerong	710	259
PT. Sumber Daya Kelola*	Losarang	11	3.8
PT. Arsynergi Resources	Gresik	300	109.5
Sub Total			932.30
Grand Total Kapasitas LPG			4,515.30

PERFORMANCE & LPG DEMAND DI INDONESIA



DIREKTORAT JENDERAL
MINYAK DAN GAS BUMI
KEMENTERIAN ENERGI
DAN SUMBER DAYA MINERAL

Target Jumlah hari Cadangan LPG Operasional 2020-2024

Sasaran Program/Indicator Kinerja Sasaran Program	Satuan	Target				
		2020	2021	2022	2023	2024
Jumlah Hari Cadangan LPG Operasional	Hari	14	14	14	14	14

Sumber Data : Laporan Kinerja Tahun 2024 Dirjen Migas

Target Indeks Ketersediaan LPG 2020-2024

Sasaran Program/Indicator Kinerja Sasaran Program	Satuan	Target				
		2020	2021	2022	2023	2024
Indeks Ketersediaan LPG	Indeks	1	1	1	1	1
a. Produksi LPG	Juta Ton	1,97	1,97	1,97	1,97	1,97
b. Deviasi Kuantitas Impor LPG dari Kuantitas yang direkomendasikan	%	20%	17%	15%	12%	10%
c. Deviasi Kuantitas ekspor LPG dari Kuantitas yang direkomendasikan	%	30%	27%	25%	22%	20%

Sumber Data : Laporan Kinerja Tahun 2024 Dirjen Migas

Target Penyediaan LPG 3 kg bagi Masyarakat, Usaha Mikro, dan Petani Sasaran 2020-2024

Sasaran Program/Indicator Kinerja Sasaran Program	Satuan	Target				
		2020	2021	2022	2023	2024
Penyediaan Elpiji 3 kg bagi Masyarakat, Usaha Mikro, Nelayan dan Petani Sasaran	Juta MT	7.000	7.364-7.399	7.754-7.836	8.165-8.431	8.614-8.870
Persentase Realisasi Volume LPG Bersubsidi terhadap Kuota yang Ditetapkan	%	100%	100%	100%	100%	100%

Sumber Data : Laporan Kinerja Tahun 2024 Dirjen Migas

Realisasi Indeks Ketersediaan Migas

Indeks Ketersediaan Migas	2020	2021	2022	2023	2024
Indeks Ketersediaan Hulu Gas	1,91	1,82	1,80	1,83	1,79
Indeks Ketersediaan Hulu Migas	1,37	1,42	1,34	1,42	1,39
Indeks Ketersediaan BBM	1,08	1,01	1,11	1,09	1,02
Indeks Ketersediaan LPG	1,00	1,07	1,02	1,02	1,00
Indeks Ketersediaan LNG	1,29	1,22	1,35	1,52	1,29

Sumber Data : Laporan Kinerja Tahun 2024 Dirjen Migas

Kuota dan Realisasi LPG Tabung 3 kg

Tahun	Kuota LPG Tabung 3 kg (Juta MT)	Realisasi LPG Tabung 3 kg (Juta MT)	%
2024	8,030	8,230	102,50
2023	8,000	8,046	100,58
2022	8,000	7,807	97,59
2021	7,500	7,456	99,41
2020	7,000	7,137	101,97

Sumber Data : Laporan Kinerja Tahun 2024 Dirjen Migas

4

Q&A

pipes

PERTAGAS
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ENERGY SUMMIT





QUESTIONS

ANSWERS



TERIMA KASIH