Ministry of Utility and Telecommunication Sarawak

FACTS AND FIGURES HANDBOOK 2025

An Overview of Sarawak's Utilities & Telecommunications

MINISTRY OF UTILITY AND TELECOMMUNICATION SARAWAK

Published by:
Ministry of Utility and Telecommunication Sarawak,
1st, 7th, 8th, 9th & 10th Floor, LCDA Tower,
Lot 2879, The Isthmus, Off Jalan Bako,
93050 Kuching,
Sarawak, Malaysia.

Edition 1:2025

Free E-book

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PREFACE

The Ministry of Utility and Telecommunication Sarawak Facts and Figures Handbook 2025 presents key data, insights, and developments across the water supply, electricity supply, gas distribution, telecommunication and enforcement & legal sectors.

It provides an overview of Sarawak's progress toward a resilient, inclusive, and sustainable utilities and telecommunication landscape.

OVERVIEW

WATER SUPPLY

Sarawak is progressing towards full water supply coverage through the Sarawak Water Supply Grid and the Sarawak Alternative Water Supply (SAWAS) initiatives. As of 2025, total coverage stands at 85.6%, with rural areas at 71.0%. Supported by programmes such as Non-Revenue Water (NRW) reduction, ageing pipeline replacement, and expanded smart water metering, Sarawak will continue strengthening its system to achieve full coverage for clean, sustainable and reliable water for all.

ELECTRICITY SUPPLY

Sarawak's electricity sector has achieved nearly full coverage with the completion of rural electrification under Projek Rakyat. The Ministry is currently extending supply to newly built homes through the Additional Late Applicant Fund (ALAF) initiative. Efforts are also underway to improve power reliability in rural areas by upgrading existing infrastructure statewide. Sarawak's generation expansion utilizing particularly gas, hydro and solar will strengthen generation reliability and long-term energy security, while maintaining capacity mix of at least 60% from renewable sources.

GAS DISTRIBUTION

The Sarawak Gas Roadmap (SGR) outlines a plan to increase domestic gas use from 7% to 30% by 2030. Major progress has been recorded in Miri and Bintulu, where PETROS is expanding piped gas networks to support households, commercial users, and industrial growth. These developments underline Sarawak's commitment to strengthening downstream gas infrastructure, supporting industrial hubs, and ensuring efficient and sustainable energy solutions for the people of Sarawak under the Sarawak Gas Roadmap.

TELECOMMUNICATION

The expansion of telecommunication infrastructure resulted in 94.5% internet penetration and advancing 4G and 5G networks. Key initiatives such as the Sarawak Linking Rural, Urban and Nation (SALURAN) and Jalinan Digital Negara (JENDELA) Phase 1 aim to bridge connectivity disparities and enhance digital inclusivity in Sarawak.

ENFORCEMENT AND LEGAL

The Enforcement and Legal Division conducts ongoing inspections and investigations to ensure compliance with regulatory requirements across the utility sectors within the Ministry's jurisdiction. It also undertakes enforcement actions and provides legal advisory support.

FACTS AND FIGURES
WATER SUPPLY

WATER FROM SOURCE TO TAP

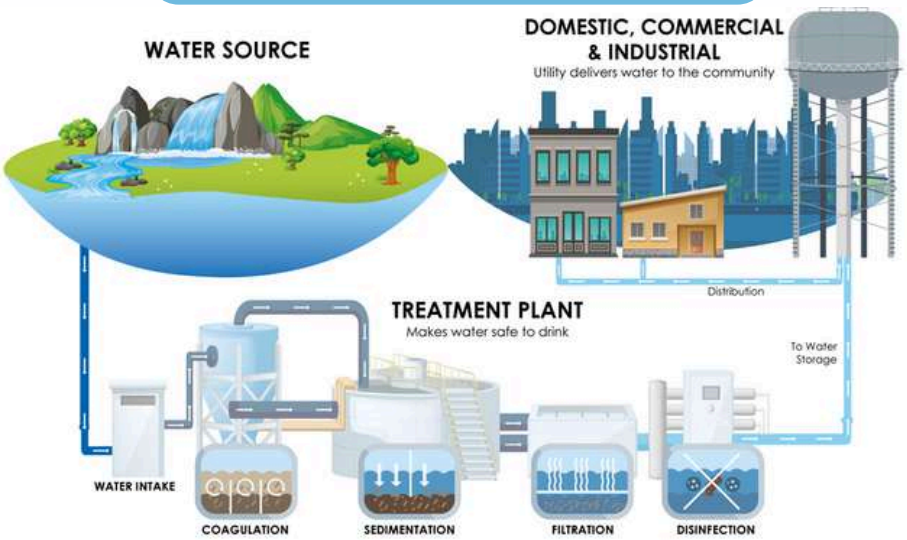


Illustration of Typical Water Treatment and Distribution System

WATER CATCHMENT AREAS

28 Gazetted Water Catchment Areas

4,073,351 Hectares

10,065,470 Acres

GAZETTED YEARS

1993
- Ng. Sekuau/ Ng. Stapang
- Ulu Mukah

1994
- Saratok

1996
- Bintulu

1999
- Lambir

2000
- Bintangor
- Tatau
- Lubok Antu
- Betong/ Spaoh/ Debak
- Sebuyau

2002
- Sg. Sarawak Kiri
- Sarikei
- Lawas
- Lingga
- Kapit
- Stumbin Bijat
- Pusa

2003
- Serian
- Simunjan
- Sri Aman
- Engkilili
- Bau
- Matu
- Daro
- Kpg. Tian
- Pantu
- Maludam
- Beladin

WATER SUPPLY DAMS IN SARAWAK

SIKA DAM, BINTULU (3.28MCM)

Specification	
Operator	Sarawak Water Sdn. Bhd.
Design Storage Capacity	3.28 MCM
Dam Type	Rockfill Dam
Year Construction	1979
Year Operation	1983
Dam Height	27 meter
Dam Length	270 meter
Catchment Area	4 km^2
Reservoir Size	0.36 km^2

Source: Sarawak Water Sdn. Bhd.

ASSYAKIRIN DAM, BINTULU (33.68MCM)

Source: Sarawak Water Sdn. Bhd.

Specification	
Operator	Sarawak Water Sdn. Bhd.
Design Storage Capacity	33.68 MCM
Dam Type	Earthfill / Weak Rockfill
Year Construction	2002
Year Operation	2004
Dam Height	32 meter
Dam Length	470 meter
Catchment Area	27.9 km^2
Reservoir Size	3.63 km^2

Remark: MCM = Million Cubic Meter

WATER SUPPLY DAMS IN SARAWAK

GERUGU DAM, SARIKEI (13.97MCM)

Specification	
Operator	Jabatan Bekalan Air Luar Bandar
Design Storage Capacity	13.97 MCM
Dam Type	Earthfill Dam
Year Construction	2006
Year Operation	2009
Dam Height	33 meter
Dam Length	220 meter
Catchment Area	13.6 km^2
Reservoir Size	1.33 km^2

Source: Jabatan Bekalan Air Luar Bandar

BENGOH DAM, KUCHING (144MCM)

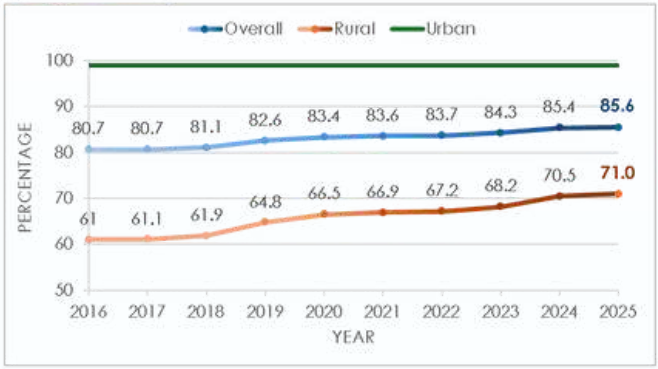
Source: Sarawak Water Sdn. Bhd.

Specification	
Operator	Sarawak Water Sdn. Bhd.
Design Storage Capacity	144 MCM
Dam Type	Roller Compacted Concrete Dam
Year Construction	2007
Year Operation	2010
Dam Height	63 meter
Dam Length	267 meter
Catchment Area	127 km^2
Reservoir Size	8.77 km^2

TOTAL WATER SUPPLY DAMS STORAGE CAPACITY : 194.93 MCM

Remark: MCM = Million Cubic Meter

WATER SUPPLY COVERAGE PERCENTAGE (2016 – 2025)



Remarks: Data as of December 2025

2025

Overall Coverage
85.6%

Urban Coverage
99%

Rural Coverage
71.0%

WATER TREATMENT PLANT

106 NOS

*Exclude Acute & SAWAS Plants

TOTAL WTP DESIGN CAPACITY

2,494 MLD

*Exclude Acute & SAWAS Plants

CURRENT WATER PRODUCTION

2,078 MLD

*Exclude Acute & SAWAS Plants

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

ACUTE WATER TREATMENT PLANT

16 NOS

ACUTE PLANT DESIGN CAPACITY

91.2 MLD

Source: Jabatan Bekalan Air Luar Bandar

SAWAS PLANT

40 NOS

SAWAS PLANT DESIGN CAPACITY

12.3 MLD

Source: Jabatan Bekalan Air Luar Bandar

Remarks: Information as of Q3 2025

GROUND & HIGH-LEVEL TANK

331 NOS

**Operated by Water Supply Authorities*

BOOSTER PUMP STATION

146 NOS

**Operated by Water Supply Authorities*

Division	Ground Tank (Nos)	High Level Tank (Nos)	Booster Station (Nos)
Kuching	49	12	19
Samarahan	4	18	9
Serian	7	8	14
Sri Aman	1	13	9
Betong	12	29	22
Sarikei	12	25	19
Sibu	27	22	13
Mukah	1	25	12
Bintulu	9	9	5
Kapit	8	7	5
Miri	15	8	11
Limbang	7	3	8
Total	152	179	146

Remarks: Information as of Q3 2025

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

Sg. Laong Booster Station, Bakong, Miri

Tambirat High Level Tank, Samarahan

ACUTE WATER TREATMENT PLANT

While awaiting the completion of the Water Supply Grid Program, **acute water treatment plant** has been implemented **to address water supply shortages** and to maintain reliable water access for affected communities **during the transition period**.

Source: Jabatan Bekalan Air Luar Bandar

Maludam Acute Plant

No.	Name of Acute Project	Revised Capacity (MLD)
1	Lundu	6.0
2	Sematan	6.0
3	Along Old Kuching-Serian Road	7.0
4	Lingga	1.0
5	Spaoh	7.0
6	Pusa	7.0
7	Maludam	4.5
8	Beladin Areas	5.0
9	Lichok	10.0
10	Temadak	6.7
11	Lubau Areas	10.0
12	Kanowit	6.0
13	Sg. Sadit	4.0
14	Daro areas	4.0
15	Song	4.0
16	Long Lama	3.0
	Total	91.2

Source: Jabatan Bekalan Air Luar Bandar

Spaoh Acute Plant

Source: Jabatan Bekalan Air Luar Bandar

SARAWAK ALTERNATIVE WATER SUPPLY (SAWAS)

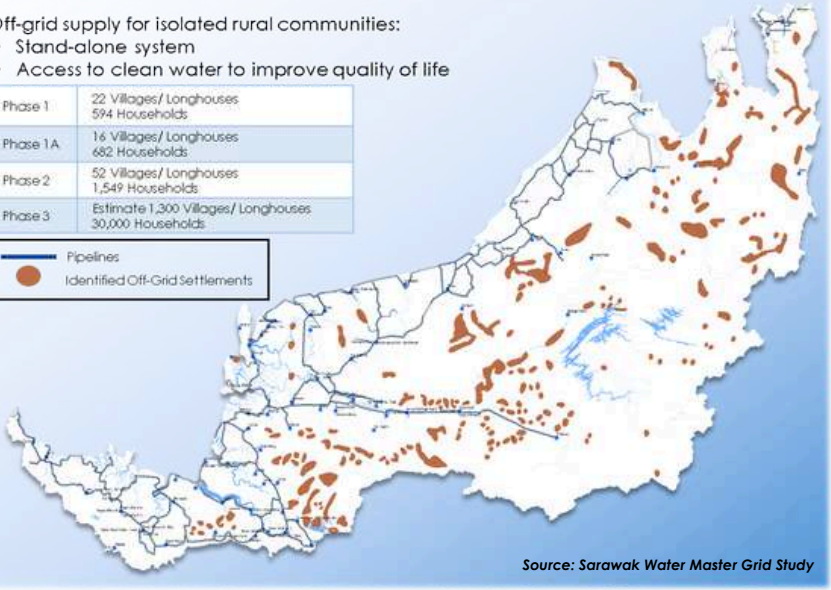
Off-grid supply for isolated rural communities:

- Stand-alone system
- Access to clean water to improve quality of life

Phase 1	22 Villages/ Longhouses 594 Households
Phase 1A	16 Villages/ Longhouses 682 Households
Phase 2	52 Villages/ Longhouses 1,549 Households
Phase 3	Estimate 1,300 Villages/ Longhouses 30,000 Households

Pipelines

Identified Off-Grid Settlements



Source: Sarawak Water Master Grid Study

Source: Jabatan Bekalan Air Luar Bandar

SAWAS system at Rh. Kayan, Ulu Penyarai, Kakus, Bintulu

PIPELINE

TOTAL LENGTH OF PIPELINE

17,014 km

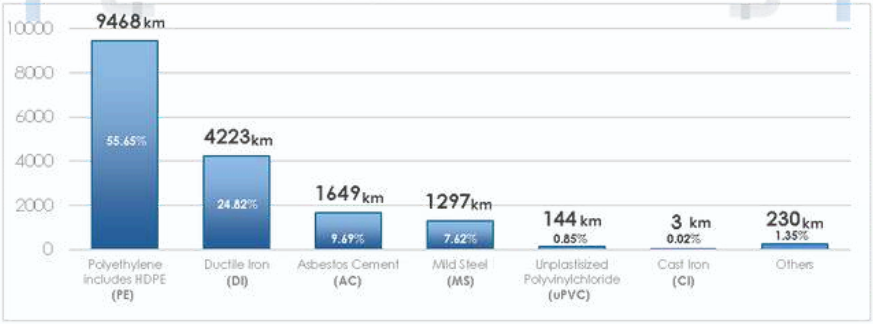


Chart: Length of Pipeline by Types

AGEING/ OLD PIPELINE TO REPLACE

2,742 km (16.1%)

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

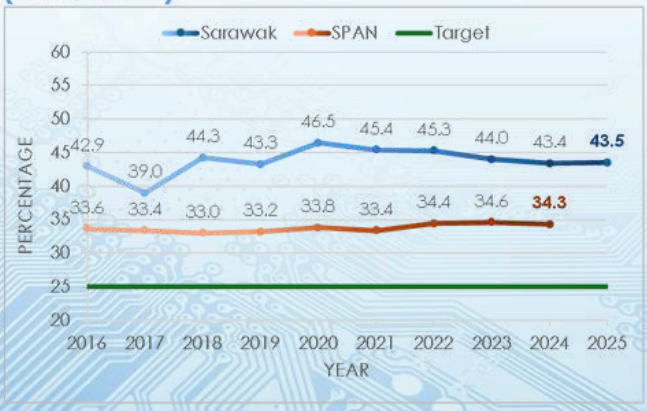
NRW

Sarawak
43.5%
Q2 2025

SPAN
34.3%

Target
25.0%

NON-REVENUE WATER (NRW) PERCENTAGE (2016 – 2025)



Source: SPAN Facts & Figures 2024

Remarks: Information as of Q2 2025

TOTAL ACTIVE ACCOUNTS

665,723 NOS

**Based on active water meters*

TOTAL BILLED CONSUMPTION

1,218 MLD

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

DOMESTIC

Active Accounts
571,606 NOS (85.86%)

Billed Consumption
609.1 MLD (50.01%)

NON-DOMESTIC
(Commercial, Industrial, Ship, etc.)

Active Accounts
94,117 NOS (14.14%)

Billed Consumption
609.0 MLD (49.99%)

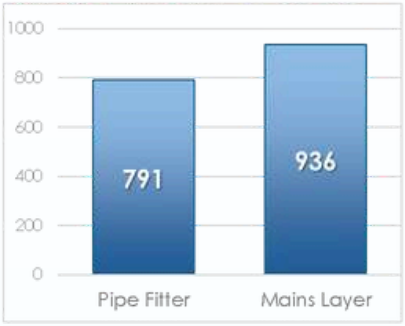
Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

DOMESTIC CONSUMPTION PER CAPITA PER DAY

United Nation (Benchmark)	**165 LCD**
Suruhanjaya Perkhidmatan Air Negara (2024)	**225 LCD**
Sarawak (2024)	**263 LCD**

Source: SPAN Facts & Figures 2024

NO. OF APPROVED LICENSEE



LIST OF ACCREDITED INSTITUTIONS

1. Akademi Binaan Malaysia Wilayah Sarawak (ABM)
2. Pusat Pembangunan Kemahiran Sarawak (Sarawak Skills)
3. Institut Kemahiran Mara Kuching (IKMK)

NO. OF APPROVED WATER SUPPLY PRODUCT CERTIFICATE

MUT SERVICES – WATER LICENSES AND CERTIFICATES ISSUANCE

No	Service Name	Online
1	New application for Mains Layer Licence	√
2	Renewal for Mains Layer Licence	√
3	New application for Pipe Fitter Licence	√
4	Renewal for Pipe Fitter Licence	√
5	New application for Water Supply Product Certificate	√
6	Renewal for Water Supply Product Certificate	√

WATER TREATMENT PLANT (WTP)

	Name of WTP	Design Capacity (MLD)
Kuching Division		
1	Batu Kitang	868.00
2	Matang	16.00
3	Lundu	2.46
4	Sematan (Package)	2.00
5	Sematan (Old Plant)	0.66
6	Telok Melano	5.00
7	Bau	15.00
8	Tapah (Module 1)	12.00
9	Tapah (Module 2)	2.00
10	Tapah (Module 3)	5.00
Total		928.12

	Samarahan Division	
1	Sebangan	1.10
2	Simunjan	5.00
3	Sebuyau	3.20
Total		9.30

	Serian Division	
1	Slabi (Module 1)	10.00
2	Slabi (Module 2)	50.00
3	Slabi (Module 3)	50.00
4	Balai Ringin	2.20
Total		112.20

	Sri Aman Division	
1	Bayai (Module 1)	4.50
2	Bayai (Module 2)	5.40
3	Bayai (Module 3)	20.00
4	Bayai (Module 4)	20.00
5	Bayai (Module 5)	3.40
6	Melugu	0.65
7	Skrang	0.65
8	Engkelili	1.30
9	Pantu (Package Plant)	2.00
10	Lingga	0.65

Remarks: Water treatment plant information as of Q3 2025

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

WATER TREATMENT PLANT (WTP)

	Name of WTP	Design Capacity (MLD)
Sri Aman Division		
11	Seduku Agropolitan	2.00
12	Stumbin Bijat	0.65
13	Lubok Antu (Module 1)	7.50
14	Lubok Antu (Module 2)	7.50
15	Lemanak Development Scheme	2.20
	Total	78.40

	Betong Division	
1	Lubau	30.00
2	Kaki Wong	30.00
3	Lichok	15.00
4	Debak	1.00
5	Beladin (Type 1)	0.65
6	Beladin (Package Plant)	2.00
7	Maludam	2.00
	Total	80.65

	Sarikei Division	
1	Bayong (Module 1)	40.00
2	Bayong (Module 2)	30.00
3	Bayong (Module 3)	30.00
4	Julau	1.31
5	Paloh	0.65
6	Selalang	0.65
7	Temadak	7.94
8	Pakan	0.65
	Total	111.20

	Sibu Division	
1	Salim	150.00
2	Bukit Lima	45.00
3	Nanga Sekuau	0.65
4	Ulu Mukah	2.27
5	Selangau	7.00
6	Rassau	0.77
7	Kanowit	4.86
8	Machan (Module 1)	0.65

Remarks: Water treatment plant information as of Q3 2025

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

WATER TREATMENT PLANT (WTP)

	Name of WTP	Design Capacity (MLD)
Sibu Division		
9	Machan (Module 2)	4.00
10	Nanga Tada	1.30
11	Nanga Ngungun	0.65
12	Nanga Dap	0.65
13	Nanga Jagau	0.65
Total		**218.45**

Mukah Division		
1	Tanjung Manis	30.00
2	Basong (Module 1)	14.00
3	Basong (Module 2)	45.00
4	Balingian	0.66
5	Dalat	4.50
6	Kut	0.66
7	Matu	3.20
8	Kpg. Tian	0.80
9	Jemoreng	10.50
10	Daro	1.64
11	Semup	0.20
12	Saai	0.10
13	Penibong	1.50
Total		**112.76**

Bintulu Division		
1	Nyabau	356.0
2	Samalaju	80.00
3	Tatau	6.00
4	Sungai Asap (Module 1)	4.00
5	Sungai Asap (Module 2)	5.00
6	Tubau	0.65
7	Labang	0.65
8	Sangan	0.65
Total		**452.95**

Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

Remarks: Water treatment plant information as of Q3 2025

WATER TREATMENT PLANT (WTP)

	Name of WTP	Design Capacity (MLD)
	Kapit Division	
1	Kapit (Module 1)	4.50
2	Kapit (Module 2)	24.00
3	Song	4.00
4	Nanga Beguang	0.30
5	Belaga	5.00
6	Long Mitik	1.00
7	Long Menjawah	0.50
8	Nanga Entawau	0.65
	Total	**39.95**
	Miri Division	
1	Lambir	214.00
2	Suai/ Niah Subis	30.00
3	Marudi	12.00
4	Bario	1.50
5	Long Bedian	0.50
6	Tinjar	3.00
7	Sg. Arang	0.08
8	Long Tabing	0.30
9	Long Banga	0.80
	Total	**262.18**
	Limbang Division	
1	Berawan	40.00
2	Trusan (Module 1)	20.00
3	Trusan (Module 2)	20.00
4	Merapok	2.00
5	Gelugus	5.00
6	Ba Kelalan	0.20
7	Long Napir	0.40
8	Limpaku Pinang	0.20
Total		**87.80**
	Overall Sarawak	
	Total	**2,493.96**

Remarks: Water treatment plant information as of Q3 2025

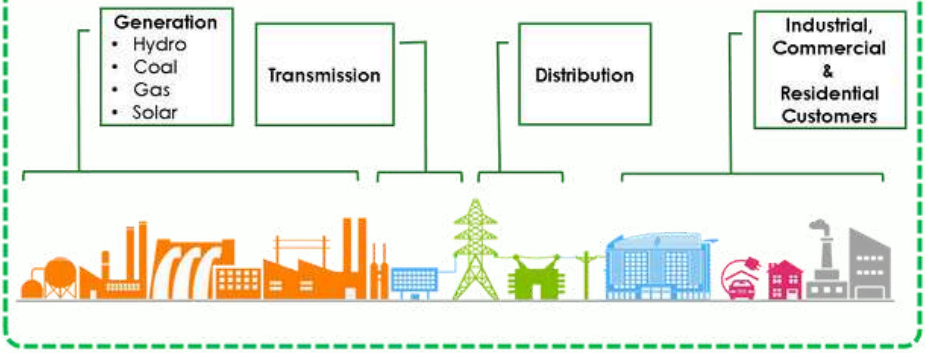
Source: Jabatan Bekalan Air Luar Bandar & Sarawak Water Sdn. Bhd.

ABBREVIATIONS

1	JBALB	Jabatan Air Luar Bandar Sarawak
2	km	Kilometre
3	km^2	Square Kilometre
4	LCD	Litres Per Capita Per Day
5	m^3	Cubic metre, unit of volume
6	MCM	Million Cubic Metre
7	MLD	Million Litres Per Day
8	NOS	Numbers
9	Sarawak Water	Sarawak Water Sdn. Bhd.
10	SAWAS	Sarawak Alternative Water Supply
11	SPAN	Suruhanjaya Perkhidmatan Air Negara
12	WSAs	Water Supply Authorities
13	WTP	Water Treatment Plant

FACTS AND FIGURES
ELECTRICITY SUPPLY

SARAWAK ELECTRICITY SUPPLY SYSTEM



ELECTRICITY SUPPLY COVERAGE PERCENTAGE (2016 – 2025)

Remarks: Data as of December 2025

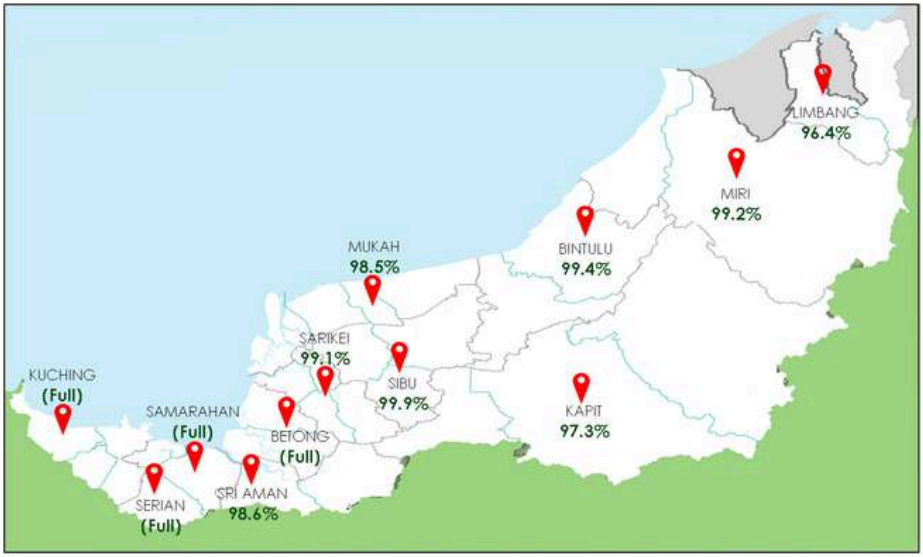
2025

Overall Coverage
99.7%

Urban Coverage
Full coverage

Rural Coverage
99.3%

ELECTRICITY SUPPLY COVERAGE BY DIVISION



	Division	% Coverage
1	Kuching	Full
2	Samarahan	Full
3	Serian	Full
4	Sri Aman	98.6%
5	Betong	Full
6	Sarikei	99.1%
7	Sibu	99.9%
8	Mukah	98.5%
9	Bintulu	99.4%
10	Kapit	97.3%
11	Miri	99.2%
12	Limbang	96.4%


Talian MVCC Petian ke Dalat

** MVCC – Medium Voltage Covered Conductor*

Source: Sarawak Energy

GENERATION

Generation Capacity

CAPACITY (MW)	
PLANTS	GENERATION CAPACITY YEAR 2025
Hydro	
Bakun HEP	2,520
Murum HEP	944
Batang Ai HEP	94
Total	**3,558**
Gas	
Kidurong CCGT	826
Sarawak Power Generation CCGT	280
Bintulu OCGT	1,140
Miri OCGT	50
Total	**1,296**
Coal	
Balingian Power Generation	578
Mukah Power Generation	193
Sejingkat Coal Power Plant	120
Total	**891**
Diesel	
Tunku Abdul Rahman (Biawak)	56
Limbang/Lawas	47
Total	**103**
Solar	
Batang Ai Floating Solar	50
Total	**50**
TOTAL GENERATION CAPACITY	**5,898**

Available Capacity (2025)
5.9 Gigawatt

Electricity Demand (2025)
4.7 Gigawatt

Target Generation by 2030
10 Gigawatt

Target Generation
15 Gigawatt

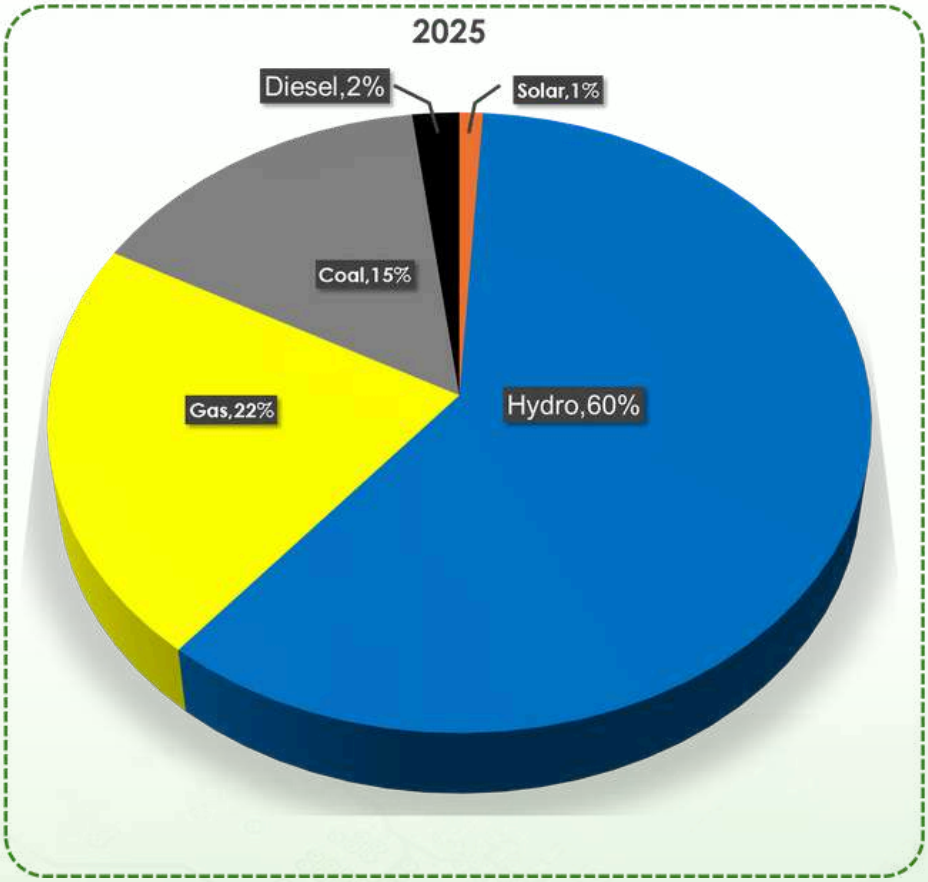
Electricity Demand projection in 2030

CUSTOMERS	DEMAND	
	2025	2030 (Projection)
Bulk Customer	4.7 Gigawatt	8.8 Gigawatt
Organic Customer		
Hydrogen Industries		
Oil and Gas		
Data Centre Industries		
Power Export		
Others		
GRAND TOTAL		

Remarks: Customers with gazetted tariffs

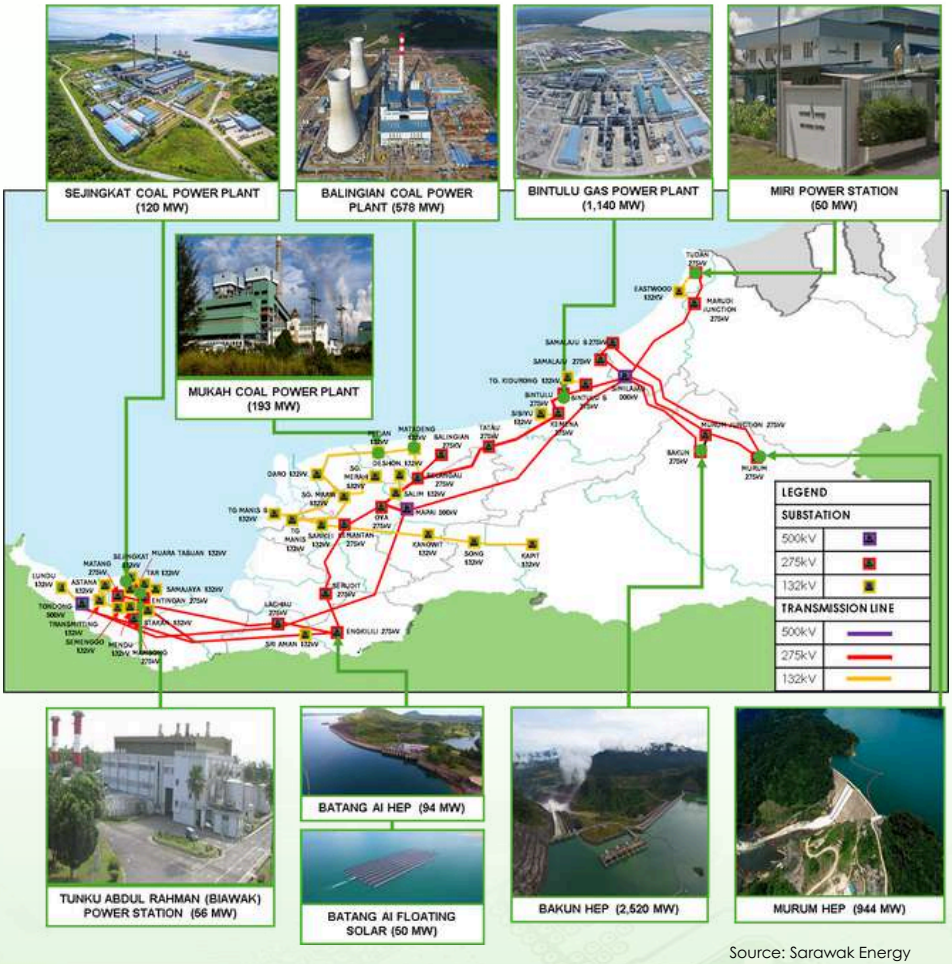
Source: Sarawak Energy

Generation Capacity Mix



Source: Sarawak Energy

GRID-CONNECTED POWER PLANTS



Source: Sarawak Energy

POWER PLANTS IN OPERATION

BATANG AI HYDROELECTRIC PLANT

Specification	
Installed Capacity	108 MW
Turbine	4 x 27 MW
Year Construction	1982
Year Operation	1985
Location	Batang Ai, Lubok Antu, Sri Aman
Impounds	Batang Ai River
Dam Hight	85 m
Dam Length	649 m
Catchment Area	1,200 km^2
Surface Area	90 km^2

BATANG AI FLOATING SOLAR PLANT

Specification	
Installed Capacity	50 MW
Year Construction	2023
Year Operation	2024
Location	Batang Ai reservoir
Area	190 ha
Project Type	Large-Scale Solar (LSS)

Source: Sarawak Energy

BAKUN HYDROELECTRIC PLANT

Specification	
Installed Capacity	2,520 MW
Turbine	4 x 330 MW 4 x 300 MW
Year Construction	1996
Year Operation	2011
Location	Bakun, Bintulu
Impounds	Balui River
Dam Height	205 m
Dam Length	750 m
Catchment Area	14,750 km^2
Surface Area	695 km^2

MURUM HYDROELECTRIC PLANT

Specification	
Installed Capacity	944 MW
Turbine	5 x 236 MW
Year Construction	2008
Year Operation	2015
Location	Murum, Bintulu
Impounds	Murum River
Dam Height	141 m
Dam Length	473 m
Catchment Area	2,750 km^2
Surface Area	270 km^2

Source: Sarawak Energy

POWER PLANTS UNDER CONSTRUCTION

BALEH HYDROELECTRIC PLANT

Specification	
Installed Capacity	1,285 MW
Turbine	5 x 257 MW
Year Construction	2018
Year Operation	Scheduled completion by 2029
Location	Baleh, Kapit
Impounds	Baleh River
Dam Height	188 m
Surface Area	588 km^2

Artist Impression on Baleh HEP

Artist Impression on Samalaju CCGT

SAMALAJU COMBINED-CYCLE GAS TURBINE POWER PLANT

Specification	
Installed Capacity	1,500 MW
Year Construction	2025
Year Operation	Scheduled completion by 2029
Location	Samalaju, Bintulu
Primary Fuel	Natural Gas

Source: Sarawak Energy

MIRI COMBINED-CYCLE GAS TURBINE POWER PLANT

	Specification
Installed Capacity	500 MW
Year Construction	2023
Year Operation	Scheduled completion by December 2027
Location	Lutong, Miri
Primary Fuel	Natural Gas

Artist Impression on Miri CCGT

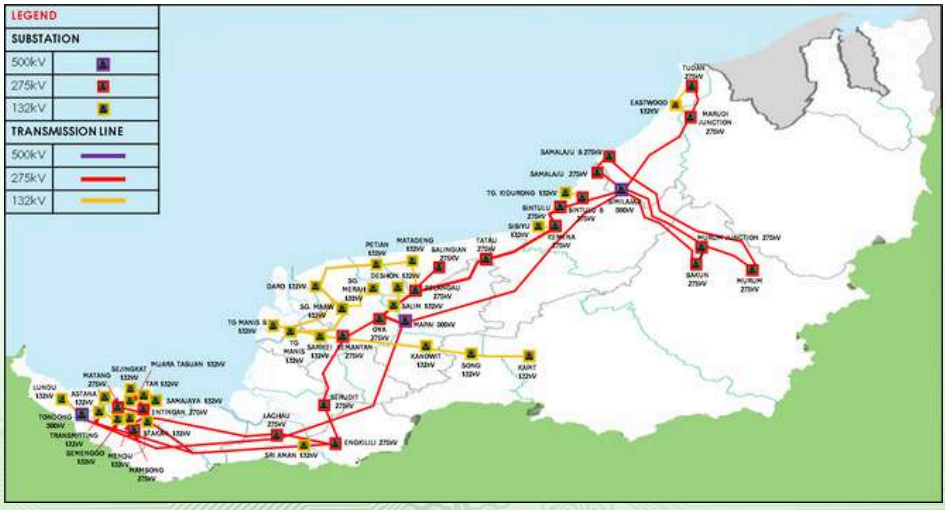
Source: Petroleum Sarawak Berhad

SARAWAK ELECTRICITY GRID SYSTEM

Sarawak Electricity Grid comprises of 500kV, 275kV and 132kV transmission systems which connect the major load centres such as Kuching, Sibu, Bintulu and Miri.

Transmission Network System	Details
500 kV Supplementary Backbone	1,242 km
275 kV Main Backbone Grid	3,635 km
132 kV Regional Grid	1,361 km
500/275/132 kV Substation	52 nos

Source: Sarawak Energy

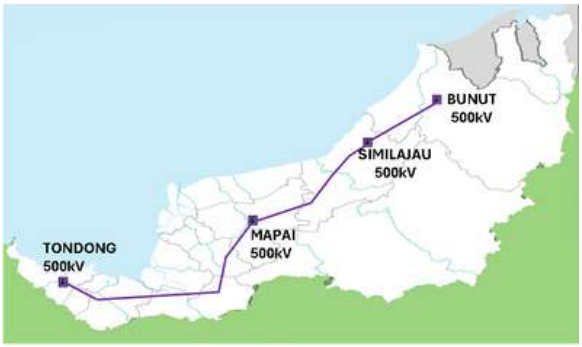


Source: Sarawak Energy

500 kV SECOND SARAWAK TRANSMISSION LINE

Bunut, Miri – Tondong, Bau (Supplementary Backbone)

1,242 KM



275 kV MAIN BACKBONE TRANSMISSION LINE

Miri – Kuching

3,635 KM

132 kV REGIONAL GRID TRANSMISSION LINE

Kuching, Sibu, Bintulu & Miri

1,361 KM

Source: Sarawak Energy

500/ 275/ 132kV (TRANSMISSION) SUBSTATION

	Division	Number of Substation
1	Kuching	10
2	Samarahan	3
3	Sri Aman	2
4	Betong	1
5	Sarikei	4
6	Sibu	7
7	Mukah	4
8	Bintulu	13
9	Kapit	3
10	Miri	4
11	Limbang (Lawas)	1
	Total	**52**

Source: Sarawak Energy

ADDITIONAL AND LATE APPLICANT FUND (ALAF)

Introduced in 2018, ALAF supplies electricity to eligible rural households that were not connected following the completion of RES projects. These households are generally either under construction or newly built.

ALAF
Phase 1-4

21,073 Households

20,065 Households	95%	Completed
753 Households	4%	Under construction
255 Households	1%	Design stage

Remarks: Data as of December 2025

ADDITIONAL AND LATE APPLICANT FUND (ALAF)

IMPLEMENTED BY DIVISION

No	Division	No of villages	No of households
1	Kuching	201	4,294
2	Samarahan	199	3,625
3	Serian	178	3,733
4	Sri Aman	48	231
5	Betong	90	1,555
6	Sarikei	100	558
7	Sibu	107	1,079
8	Mukah	71	627
9	Bintulu	76	648
10	Kapit	77	685
11	Miri	103	2,281
12	Limbang	149	749
Total:		**1,399**	**20,065**


Kampung Kelapa, Miri

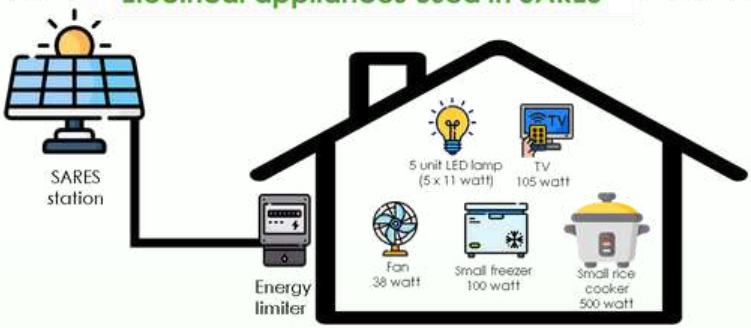

Kampung Sejahtera, Matu

Source: Sarawak Energy

Sarawak Alternative Rural Electrification Scheme (SARES)

Launched in 2016 by Sarawak Government, SARES provides 24-hour electricity renewable energy solutions, mainly solar, to remote rural communities that are inaccessible to the grid. The program supplies solar panels, inverters, and batteries with locals trained for maintenance of the systems.

Electrical appliances used in SARES



- ✓ Maximum Capacity at 1kW per household
- ✓ Max Usage of 3kWh per household per day
  - To preserve the lifespan of the battery and overall SARES System


Long Aya, Miri


Apau Gun, Miri

Source: Sarawak Energy

SARES IMPLEMENTED BY DIVISION

No	Division	No of villages	No of households
1	Samarahan	3	18
2	Sri Aman	19	295
3	Betong	4	44
4	Sarikei	21	368
5	Sibu	2	48
6	Mukah	1	11
7	Bintulu	88	1,481
8	Kapit	268	6,160
9	Miri	132	6,494
10	Limbang	15	250
Total:		**553**	**15,169**


Rumah Unggah Ngadan, Bukit Mabong


Rumah Dawin, Bukit Mabong

Source: Sarawak Energy

Battery Replacements for SARES

This initiative covers the supply, delivery, installation, testing, and commissioning of SARES batteries and associated components. It aims to replace the batteries installed during SARES Phase 1 and Phase 2 in remote villages throughout Sarawak. These existing batteries, deployed around 2016, have exceeded their operational lifespan and need to be replaced to ensure 24-hour electricity to rural communities.

Solar Panel – Rumah Unting Sekeroh Oyan

Battery Replacement For SARES By Division

No	Division	No of villages	No of households
1	Sri Aman	7	142
2	Bintulu	16	285
3	Kapit	33	656
4	Miri	18	800
5	Limbang	7	163
Total:		**81**	**2,046**

SARES Internal Powerhouse – Long Latei, Telang Usan

SARES Station- Long Spigen, Miri

Inverters – Long Pillah, Telang Usan

Source: Sarawak Energy

NET ENERGY METERING (NEM) SYSTEM

Solar panel → Inverter → Meter → Grid

NET ENERGY METERING (NEM) SCHEME

A rooftop solar PV system that allows the consumer to export excess energy produced to the grid on "one on one" offset basis.

35 installations in operation


Miri

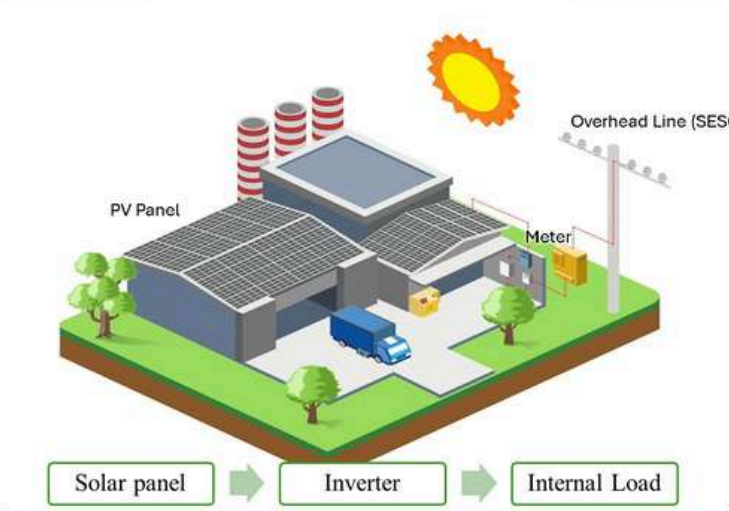

Santubong


Kuching


Kuching

Source: Sarawak Energy

SELF CONSUMPTION (SELCO)



SELF CONSUMPTION (SELCO)

A grid-connected rooftop solar PV system that allows the consumer to generate electricity for their own use.

1 installation in operation

Taiyo Yuden Sdn. Bhd. (Kuching)

Source: Sarawak Energy

DISTRIBUTION SYSTEM

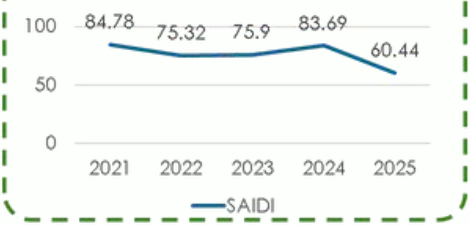
SAIDI

System
Average
Interruption
Duration
Index

= The average number of minutes of non-momentary electricity interruptions per year experienced by customers.

Distribution System Average Interruption Duration Index (SAIDI) 2021 - 2025

Year	2021	2022	2023	2024	Q3 2025
SAIDI / Minutes	84.78	75.32	75.9	83.69	60.44



SAIFI

System
Average
Interruption
Frequency
Index

= The average number of times per year that a customer's electricity supply is interrupted.

Distribution System Average Interruption Frequency Index (SAIFI) 2021 - 2025

Year	2021	2022	2023	2024	Q3 2025
SAIFI / Times	1.01	0.87	1.00	1.12	0.79

Source: Sarawak Energy

2030 target

SAIDI <60 minutes
SAIFI <1 time a year

TOTAL ACTIVE ACCOUNTS	TOTAL AVERAGE MONTHLY CONSUMPTION
942,121	1,367,670,188.83 kWh

DOMESTIC	
Active Account	809,440
Average monthly consumption	821,331,472.86 kWh

NON-DOMESTIC (Commercial and Industrial)	
Active Account	132,681
Average monthly consumption	546,338,715.97 kWh

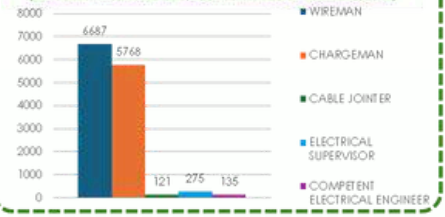
SARAWAK ENERGY SMART METERS

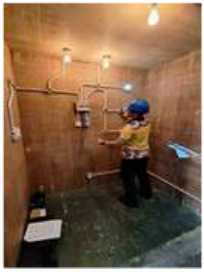
186,972 units

Kuching	137,348 units
Sibu	20,891 units
Bintulu	10,107 units
Miri	18,626 units

Source: Sarawak Energy As of 2025

NUMBER OF COMPETENT PERSONS IN SARAWAK (BY CERTIFICATE OF COMPETENCY CATEGORY)





ELECTRICAL INSTALLATION CONTRACTORS (EIC)

TOTAL REGISTERED EIC

1,693

AUTHORISED TO TEST	NOT AUTHORISED TO TEST
608	1,085

LIST OF ACCREDITED INSTITUTIONS OFFERING ELECTRICAL COMPETENCY COURSES

KUCHING
1. Sarawak Energy Learning Centre (SELC)
2. IKM Kuching
3. ABM Kuching
4. SEITI
5. CENTEXS Santubong
6. Kolej Akademi I.T.C Kuching
7. Mutiara Teknology Centre
8. Pusat Latihan Proaktif (PLP)
9. Pusat GiatMARA Santubong

LUNDU
1. CENTEXS Lundu

KOTA SAMARAHAN
1. Kolej Teknologi Termaju Kampus Kota Samarahan
2. Pusat GiatMARA Kota Samarahan
3. UNIMAS

SERIAN
1. Pusat GiatMARA Serian

MUKAH
1. Pusat GiatMARA Mukah
2. PPKS Mukah

BETONG
1. Pusat GiatMARA Betong
2. CENTEXS Betong

MIRI
1. Kolej Teknologi Termaju Kampus Miri
2. PPKS Miri
3. M.I.W.T Global Resources Sdn Bhd
4. Institut Teknologi Riam

LAWAS
1. Pusat GiatMARA Lawas
2. CENTEXS Lawas

SIBUTI
1. Pusat GiatMARA Sibuti

BINTULU
1. IKM Bintulu
2. Kolej Teknologi Termaju Kampus Bintulu
3. Asia Consultant Training & Services
4. INSTEP

HULU REJANG
1. Pusat GiatMARA Hulu Rejang

SIBU
1. Pusat GiatMARA Sibu
2. University Technology of Sarawak (UTS)

LIST OF ELECTRICAL COMPETENCY COURSES AVAILABLE AT ACCREDITED INSTITUTIONS

No.	Certificate of Competency	Category	Details
1.	Wireman	Grade 2	Single Phase Wiring Only
		Grade 1	Single Phase and Three Phase Wiring
2.	Chargeman	L1 H1	LV Main Switchboard and Auxiliaries HV Main Switchboard and Auxiliaries: up to 11kV
		L2 (O/H) H2(O/H)	HL Overhead lines and Auxiliaries HV Overhead lines and Auxiliaries: up to 11kV
		L2(U/G) H2(U/G)	LV Underground Cable Laying and Auxiliaries HV Underground Cable Laying and Auxiliaries: up to 11kV
		L3 H3	LV Generating Stations HV Generating Stations : up to 11kV
		L4 (O/G) L4 (GC)	Off Grid Low Voltage Photovoltaic (PV) System Grid Connected Low Voltage Photovoltaic (PV) System
3.	Electrical Supervisor (ES) or Competent Electrical Engineer (CEE) in Solar PV Design	Off-Grid Photovoltaic (OGPV) System Design Grid-Connected Photovoltaic (GCPV) System Design	
4.	Electrical Installation Contractor (EIC)	Building Contract Electrical Wiring (BCEW)	
		Authorise To Test (ATT)	
5.	Cable Jointer	HV Cable Jointing (Taping & Heatshrink) : up to 11kV HV Cable Jointing (Taping & Heatshrink) : up to 33kV	

ELECTRICITY LICENCE

Under the **Electricity Ordinance (Cap. 50)**, electricity licence is required for installation exceeding 50 kW.

147
Total Licensee

MUT SERVICES – ELECTRICITY LICENSES AND CERTIFICATES ISSUANCE

No	Service Name	Online	Manual
1	New application for Certificate of Competency as a Wireman	√	
2	Renewal for Certificate of Competency as a Wireman	√	
3	Endorsement for Certificate of Competency as a Wireman	√	
4	New application for Certificate of Competency as a Chargeman	√	
5	Renewal for Certificate of Competency as a Chargeman	√	
6	Endorsement for Certificate of Competency as a Chargeman	√	
7	New application for Certificate of Competency as a Cable Jointer	√	
8	Renewal for Certificate of Competency as a Cable Jointer	√	
9	Endorsement for Certificate of Competency as a Cable Jointer	√	
10	New application for Certificate of Competency as an Electrical Supervisor	√	
11	Renewal for Certificate of Competency as an Electrical Supervisor	√	
12	Endorsement for Certificate of Competency as an Electrical Supervisor	√	
13	New application for Certificate of Competency as a Competent Electrical Engineer	√	
14	Renewal for Certificate of Competency as a Competent Electrical Engineer	√	
15	Endorsement for Certificate of Competency as a Competent Electrical Engineer	√	
16	New application for Certificate of Registration as an Electrical Installation Contractor	√	
17	Renewal for Certificate of Registration as an Electrical Installation Contractor	√	
18	Endorsement for Certificate of Registration as an Electrical Installation Contractor	√	
19	Endorsement for Authorised to Test for Certificate of Registration as an Electrical Installation Contractor	√	
20	New application for Certificate of Approval (COA) for Electrical Appliances	√	
21	Renewal for Certificate of Approval (COA) for Electrical Appliances	√	
22	Application for Electrical Appliances Import Permit (Importer)	√	
23	Application for Electrical Appliances Import Permit (Individual)	√	
24	New application for Certificate of Registration as a Switchboard Manufacturer	√	
25	Renewal for Certificate of Registration as a Switchboard Manufacturer	√	
26	Endorsement for Certificate of Registration as a Switchboard Manufacturer	√	
27	Application for Wayleave (Electricity Supply)	√	
28	Registration of Installation (Electric Fence)	√	
29	Application for a licence to use, work or operate an electrical generating installation or to supply energy and registration of electrical installation (Total installed capacity is 1.5 megawatts and above)		√
30	Renewal for a licence to use, work or operate an electrical generating installation or to supply energy and registration of electrical installation (Total installed capacity is 1.5 megawatts and above)	√	
31	Application for a licence to use, work or operate an electrical generating installation or to supply energy and registration of electrical installation (Total installed capacity below 1.5 megawatts)		√
32	Renewal for a licence to use, work or operate an electrical generating installation or to supply energy and registration of electrical installation (Total installed capacity below 1.5 megawatts)	√	

ABBREVIATION

1	CCGT	Combined-Cycle Gas Turbine
2	EIC	Electrical Installation Contractor
3	GW	Gigawatt
4	ha	Hectares
5	HEP	Hydro Electric Plant
6	km	Kilometre
7	km^2	Square Kilometre
8	kV	Kilovolt
9	kWh	Kilowatt hour
10	m	Metre
11	MW	Megawatt
12	OCGT	Open Cycle Gas Turbine
13	RES	Rural Electrification Scheme

FACTS AND FIGURES
GAS DISTRIBUTION

SARAWAK - FEDERAL JOINT DECLARATION

Prime Minister YAB Dato' Seri Anwar bin Ibrahim exchanges a memorandum of understanding with Sarawak Premier YAB Tan Sri Datuk Patinggi (Dr) Abang Haji Abdul Rahman Zohari bin Tun Datuk Abang Haji Openg, during the Memorandum of Understanding Exchange Ceremony in Putrajaya today. — Bernama pic

In November 2023, the Sarawak State Legislative Assembly passed the Bill for the amendment to the **Distribution of Gas Ordinance, 2016** to appoint a Gas Aggregator for Sarawak.

Following the passing of the Bill, Petroleum Sarawak Berhad (PETROS) was appointed as the sole Gas Aggregator in Sarawak. This is a proactive decision initiated by the Sarawak Government to ensure that the allocation and distribution of its oil and gas resources are optimised to meet domestic needs and support industrial development.

This mandate was further reinforced through the **Joint Declaration** signed between the Prime Minister, YAB Dato' Seri Anwar bin Ibrahim and the Premier of Sarawak, YAB Tan Sri Datuk Patinggi (Dr) Abang Haji Abdul Rahman Zohari Bin Tun Datuk Abang Haji Openg, on 21st of May 2025. The Declaration reaffirmed that all Federal and Sarawak State laws governing gas distribution in Sarawak will coexist and be respected by all parties involved in such activities, recognising PETROS as the Gas Aggregator in Sarawak.

This milestone marks a significant step for Sarawak in securing sufficient natural gas supply to drive greater domestic utilisation and expand industrial development, enabling the implementation of the Sarawak Gas Roadmap (SGR). These efforts will stimulate high-value investments, create quality job for Sarawakians and enhance local businesses participation in the gas value chain. Together, they will accelerate Sarawak's progress towards becoming a high-income, developed State by 2030, contributing to the shared prosperity for Malaysia.

PETROS

GAS AGGREGATOR

Source: Ministry of Utility and Telecommunication & PETROS

STRATEGIC COLLABORATION WITH ENERGY COMMISSION OF SABAH AND SIRIM

The Sarawak Government was represented by MUT Permanent Secretary, YBhg. Datu Jafri bin Lias, while the Sabah Government was represented by ECoS Chief Executive Officer YBhg. Datuk Ir. Abdul Naser bin Abdul Wahid. The event was witnessed by YAB Datuk Seri Panglima Haji Hajiji bin Haji Noor, Chief Minister of Sabah, and YB Dato Sri Haji Julaihi bin Haji Narawi, Minister for Utility and Telecommunication Sarawak. – Source, MUT

The Sarawak Government, through the Ministry of Utility and Telecommunication, has signed a Memorandum of Understanding (MoU) with **Energy Commission of Sabah (ECoS)** and **SIRIM**.

The **MoU with ECoS** aims to align regulatory frameworks for gas and electrical equipment between Sarawak and Sabah, through mutual recognition of standards, safety and energy efficiency labelling, and to facilitate faster market entry for certified products without repeated verification.

The MoU was signed by YBhg. Datu Jafri bin Lias, Permanent Secretary of the Ministry of Utility and Telecommunication, and YBrs. Ts. Md Adha Rahmat, Chief Executive Officer of SIRIM QAS International Sdn. Bhd. – Source, MUT

Meanwhile, the **MoU with SIRIM** focuses on certification, inspection, and testing of gas and electrical equipment, including the development of a joint QR code safety label and technology transfer to strengthen compliance assessment infrastructure in Sarawak.

Both MoUs are expected to enhance consumer safety, electrical appliances energy efficiency, streamline industry processes and improve Sarawak's energy resource utilisation.

NATURAL GAS DISTRIBUTION IN MIRI & BINTULU

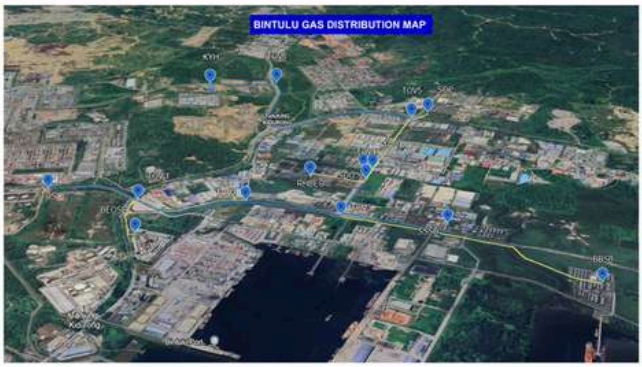
MIRI GAS DISTRIBUTION SYSTEM (COVERAGE)

PETROS

MIRI

DISTRIBUTION	Over 1,000 km
TRANSMISSION	34 km
STATION	PM5 13 M&R Station
RESIDENTIAL	25,549
COMMERCIAL	1,336
INDUSTRIAL	6

BINTULU GAS DISTRIBUTION SYSTEM (COVERAGE)



PETROS

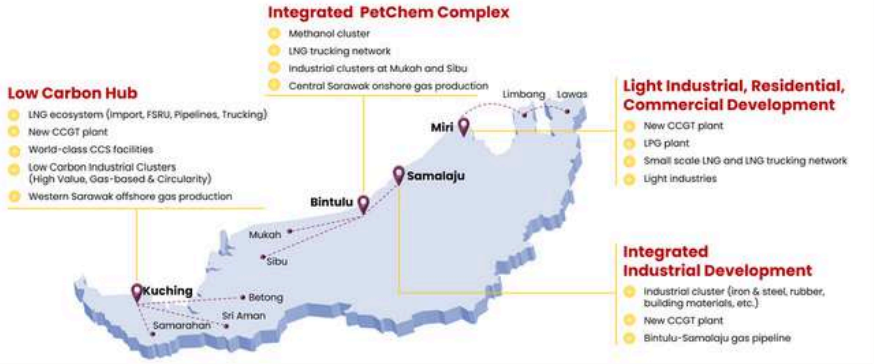
BINTULU

DISTRIBUTION	4.7KM
TRANSMISSION	9 km
STATION	TOS 7 M&R Station
RESIDENTIAL	40
COMMERCIAL	Nil
INDUSTRIAL	7

TYPE OF PREMISES	MIRI	BINTULU
INDUSTRIAL	5	7
COMMERCIAL	1,354	-
RESIDENTIAL	25,622	40

Source: PETROS

SARAWAK GAS ROADMAP



Source: PETROS

The Sarawak Gas Roadmap (SGR) rolled out in 2020 is a 10-year roadmap aimed at utilising natural gas to drive economic transformation for Sarawak. SGR aims to drive gas-based development and infrastructure across Sarawak. The SGR, focusing on four (4) strategic hubs in Miri, Samalaju, Bintulu and Kuching, will enable Sarawak to promote greater utilisation of natural gas through the expansion of Sarawak's existing gas distribution network and infrastructure.

MIRI

1. Miri Combined Cycle Gas Turbine Power Plant
2. LPG Plant
3. SSLNG and Virtual Pipeline
4. Light Industries

BINTULU

1. Integrated Methanol Industrial Cluster
2. LNG Trucking Network
3. Industrial Clusters at Mukah and Sibu
4. Central Sarawak Onshore Gas Production

SAMALAJU

1. Integrated Ammonia Industrial Cluster
2. Samalaju Combined Cycle Power Plant
3. Industrial Clusters (Iron & Steel, Rubber, Building Materials etc.)
4. Bintulu-Samalaju Gas Pipeline
5. CO2 Terminal

KUCHING

1. LNG Ecosystem (Import, Regasification Terminal, Pipelines, Trucking)
2. Kuching Combined Cycle Gas Turbine Power Plant
3. CCS Facilities
4. Low-Carbon Industrial Clusters
5. Western Sarawak Offshore Gas Production

Through SGR, Sarawak aims to increase domestic gas utilisation from about **7%** currently to at least **30%** by **2030**, ensuring a long-term supply of affordable, reliable and cleaner energy for the people of Sarawak.

Source: PETROS

BINTULU – SAMALAJU GAS PIPELINES

The **65 km Samalaju Pipeline** will transport natural gas from Kidurong to industrial customers in Samalaju. The project features a Take-Off Station 2 (TOS-2) in Kidurong, which will receive gas from the Bintulu Additional Gas Sales Facility 2 (BAGSF-2) and a Gas Receiving Facility (GRF) at Samalaju Industrial Park (SIP), which will distribute **300 MMSCFD** gas to downstream industrial users including Sarawak Energy's 1,500 MW Samalaju Combined Cycle Gas Turbine (CCGT) as an anchor customer. As of September 2025, offshore pipeline installation works have been successfully completed, including pipelay, shore-pull operations and mid-point tie-in, completing the offshore pipeline portion between TOS-2 in Kidurong and GRF at SIP.

Source: PETROS

SARAWAK VIRTUAL PIPELINES SYSTEM (VPS)

PETROS is developing the Liquefied Natural Gas Virtual Pipeline System (LNG VPS) to expand LNG access to off-grid areas, increase domestic gas utilisation in line with the Sarawak Gas Roadmap, and enable wider gas accessibility.

Beginning with delivering gas from Bintulu to Kuching for the first time, the LNG VPS uses flexible, modular transport methods such as ISO trucks to allow faster, cost-effective deployment that meets growing demand. Construction of the LNG Storage and Regasification Facility is underway and scheduled for completion by December 2025, with commercial operations targeted for January 2026 to align supply and demand agreements and customer readiness. Once operational, the LNG VPS will enhance Sarawak's energy security and provide cleaner, more reliable energy to communities and industries in Kuching.

Source: PETROS

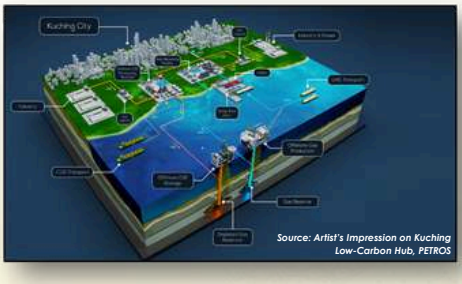
MIRI COMBINED-CYCLE GAS TURBINE

Miri CCGT Artist's Impression
Source: PETROS

The 500 MW Miri Combined-Cycle Gas Turbine (CCGT) Power Plant project is a major initiative to enhance the energy infrastructure of Northern Sarawak, ensuring a more reliable and resilient power supply for the region. Currently in the Engineering, Procurement, Construction, and Commissioning (EPCC) phase, this project is on track to power up and begin commercial operations by **December2027**.

Source: PETROS

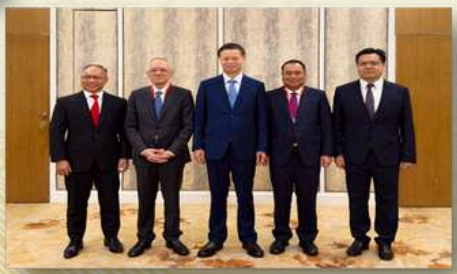
KUCHING LOW-CARBON HUB



Source: Artist's Impression on Kuching Low-Carbon Hub, PETROS

The Kuching Low-Carbon Hub (KLCH) will expand gas-fired power generation capacity for Sarawak, establish new low-carbon industrial clusters, enhance regional connectivity and enable the development of Carbon Capture and Storage (CCS) infrastructure. Critical enablers such as roads, pipelines, a deep-sea port, power plants and industrial parks will be developed to support this growth.

In May 2025, PETROS appointed China Jiangsu International Economic and Technical Cooperation Group Ltd (CJI) as one of the Anchor Partners for KLCH to support the master planning of the industrial hub. The initiative will drive technological innovation and industrial growth while positioning Sarawak as a leader in the low-carbon energy economy.



Source: PETROS

GAS POWER PLANTS IN SARAWAK

No.	Power Plant	Power Generation (MW)	Gas Consumption (MMSCFD)
1	Miri Combined-Cycle Gas Turbine Power Plant (Operate Q4 2027)	500	77
2	Samalaju Combined-Cycle Power Plant (Completion 2029)	1,500	180
3	Kuching Combined-Cycle Power Plant (Planned)	5,000	600
4	Bintulu-Kidurong Power Plant i. Bintulu Open Cycle Power Plant ii. Bintulu Combined-Cycle Power Plant iii. Tanjung Kidurong Combined-Cycle Power Plant	1,262	185
5	Pujut-Miri Open Cycle Power Plant	50	20
	Total	**8,312**	**1,062**

Total **1,062 MMSCFD** planned for gas consumptions for Sarawak's **Power Generation**

Source: PETROS

DOWNSTREAM GAS CONSUMPTION

No.	Downstream	Gas Consumption (MMSCFD)
1	Miri Residential, Commercial and Industrial	5
2	Bintulu Industrial Sector (BIS)	8
3	Shell Middle Distillate Synthesis (MDS)	134
4	ASEAN Bintulu Fertilizer (ABF)	68
5	Sarawak Petchem Sdn. Bhd.	160
6	Sarawak Gas Roadmap Opportunities (Planned)	400
	Total	**775**

Total of **775 MMSCFD** planned for gas consumptions for Sarawak's **downstream gas industry**

Source: PETROS

LPG DISTRIBUTION IN SARAWAK

PETROS LPG

Source: PETROS

PETROS

PETRONAS DAGANGAN

Partnership

• Petroleum Sarawak Berhad	51%
• PETRONAS Dagangan Berhad	49%

Board of Directors

• Petroleum Sarawak Berhad	2 Directors
• PETRONAS Dagangan Berhad	2 Directors

Source: Artist's Impression on Kuching Low-Carbon Hub, PETROS

LPG Cylinders Statistics

• Total subsidised LPG cylinders	1.8 million
• Yellow LPG cylinders exchanged	714,000 units

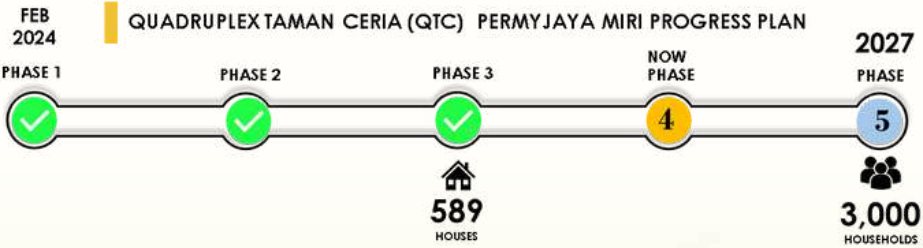
Distribution Strength

- 67 dealers
- Over 300 sub-dealers

Source: PETROS

GAS DIRECT TO KITCHEN PROGRAMME IN MIRI

The initiative to provide access to natural gas supply for residential areas at **Quadruplex Taman Ceria (QTC)** in **Permyjaya, Miri,** involves **5 phases** covering 3,000 households and is expected to be completed **by 2027**.



Source: PETROS

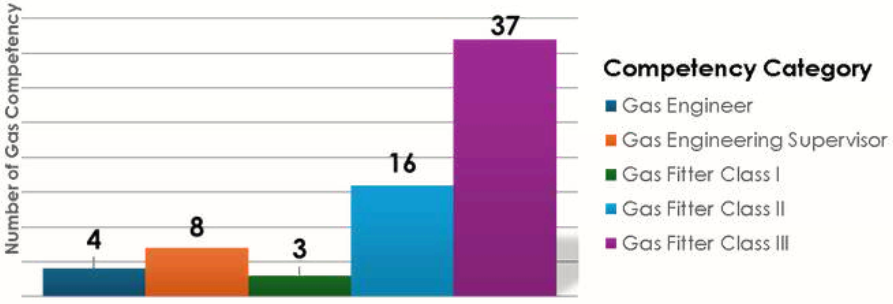
GAS to BINTULU (GtB) PROJECT IN BINTULU

In July 2025, PETROS successfully completed its pilot project to deliver first piped natural gas to 40 lower-income households in Sungai Plan, Bintulu. This pilot marks the beginning of a broader rollout under the Gas to Bintulu project, which will gradually expand access to over 120,000 residents across residential, commercial and industrial areas in Bintulu, improving the quality of life for Sarawakians and supporting local economic activities.

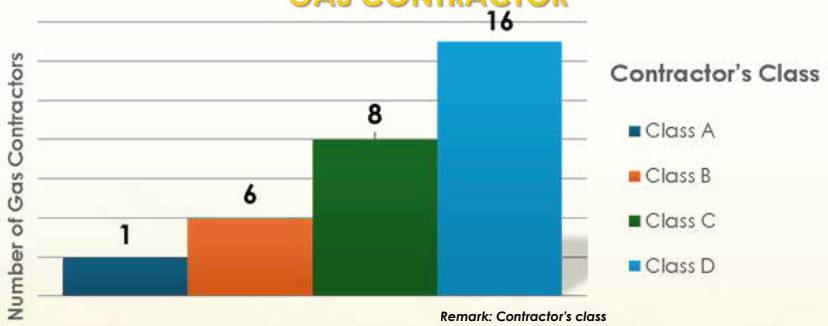
Source: PETROS

GAS COMPETENCY AND CONTRACTOR

GAS COMPETENCY



GAS CONTRACTOR



Remark: Contractor's class

GAS ACCREDITED INSTITUTION

UNIMAS
UNIVERSITI MALAYSIA SARAWAK

Gas Courses

1. Gas Fitter Class II
2. Gas Fitter Class III

Source: Ministry of Utility and Telecommunication

MUT SERVICES - GAS DISTRIBUTION LICENSES AND CERTIFICATES ISSUANCE

No	Service	Online	Manual
1	New and renewal application for Distribution of Gas Licence	√	
2	Application for Approval to Install (ATI) for gas installation	√	
3	Application for Approval to Operate (ATO) for gas installation	√	
4	New and renewal Application for Certificate of Approval (COA) to assemble, manufacture or import any gas fitting, gas appliance or gas equipment – Manufacturer, Assembler and Importer	√	
5	New and renewal application for Certificate of Approval (COA) for gas appliances, gas fittings and gas equipment - Gas Fittings, Gas Appliances and Gas Equipment	√	
6	New application for Certificate of Gas Competency - Gas Engineer, Gas Engineering Supervisor and Gas Fitter (Class I, Class II and Class III)	√	
7	Exemption for Certificate of Gas Competency - Gas Engineer, Gas Engineering Supervisor and Gas Fitter (Class I, Class II and Class III)		√
8	New and renewal application for Certificate of Practice - Gas Engineer, Gas Engineering Supervisor and Gas Fitter (Class I, Class II and Class III)	√	
9	Removal of a restriction or endorsement of a Certificate of Practice - Gas Engineer , Gas Engineering Supervisor and Gas Fitter (Class I, Class II and Class III)		√
10	Temporary Certificate of Practice for a Foreign Person - Gas Engineer, Gas Engineering Supervisor and Gas Fitter (Class I, Class II and Class III)		√
11	New and renewal application for Certificate of Registration as a Gas Contractor (Class A, B, C and D)	√	
12	Application for Inspection of gas installation - Class I, Class II and Class III gas installation		√
13	Application for Inspection of gas installation - Additional gas installation		√
14	Application for Leak Test of gas installation - Class I, Class II and Class III gas installation		√
15	Application for Leak Test of gas installation - Additional gas installation		√
16	Application for Holiday Test of gas installation		√

ABBREVIATION

1	BAGSF	Bintulu Additional Gas Sales Facility
2	CCGT	Combined - Cycle Gas Turbine
3	CCS	Carbon Capture and Storage
4	CJI	China Jiangsu International
5	CO_2	Carbon Dioxide
6	DGO 2016	Distribution of Gas Ordinance, 2016
7	EPCC	Engineering, Procurement, Construction and Commissioning
8	FSRU	Floating Storage and Regasification Unit
9	GRF	Gas Receiving Facility
10	ISO	International Organization for Standardization
11	LNG	Liquefied Natural Gas
12	LPG	Liquefied Petroleum Gas
13	MDS	Middle Distillate Synthesis
14	MMSCFD	Million Standard Cubic Feet per Day
15	MW	Mega Watt (unit for Power)
16	M&R	Metering and Regulation
17	NH3	Ammonia, (Compound: Natrium 1 + Hydrogen 3)
18	PDB	PETRONAS Dagangan Berhad
19	PETROS	Petroleum Sarawak Berhad
20	PM5	Primary Metering 5
21	QTC	Quadruplex Taman Ceria
22	SGR	Sarawak Gas Roadmap
23	SIP	Samalaju Industrial Park
24	SSLNG	Small - Scale Liquefied Natural Gas
25	TOS	Take Off Station

FACTS AND FIGURES
TELECOMMUNICATION

TELECOMMUNICATION TOWERS REQUIREMENT IN SARAWAK

Estimated **7,000** Telecommunication Towers needed for full coverage by year 2030.

4,696
OPERATIONAL TOWERS
(on-air in year 2025)

Source: Sarawak Multimedia Authority (SMA)

TELECOMMUNICATION TOWERS IN SARAWAK

GOVERNMENT INITIATIVES

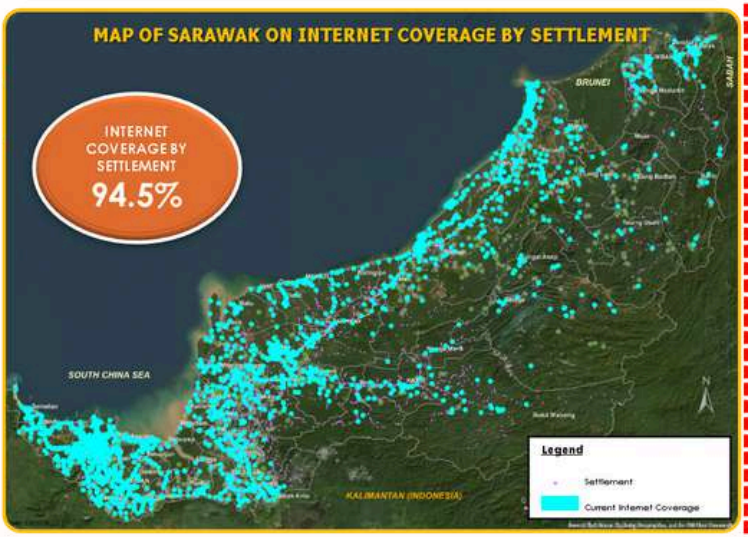
SMART	**600** towers
JENDELA PHASE 1	**636** towers

Source: Sarawak Multimedia Authority (SMA)

INTERNET COVERAGE IN YEAR 2025

INTERNET COVERAGE

The extent to which internet access is available across a specific area or region, showing where people can connect to the internet for communication, information, and online services.

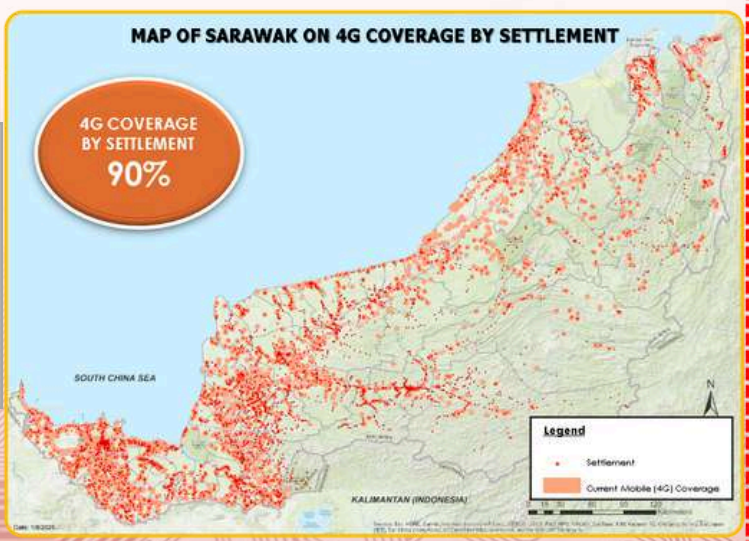


Source: Sarawak Multimedia Authority (SMA)

4G COVERAGE IN YEAR 2025

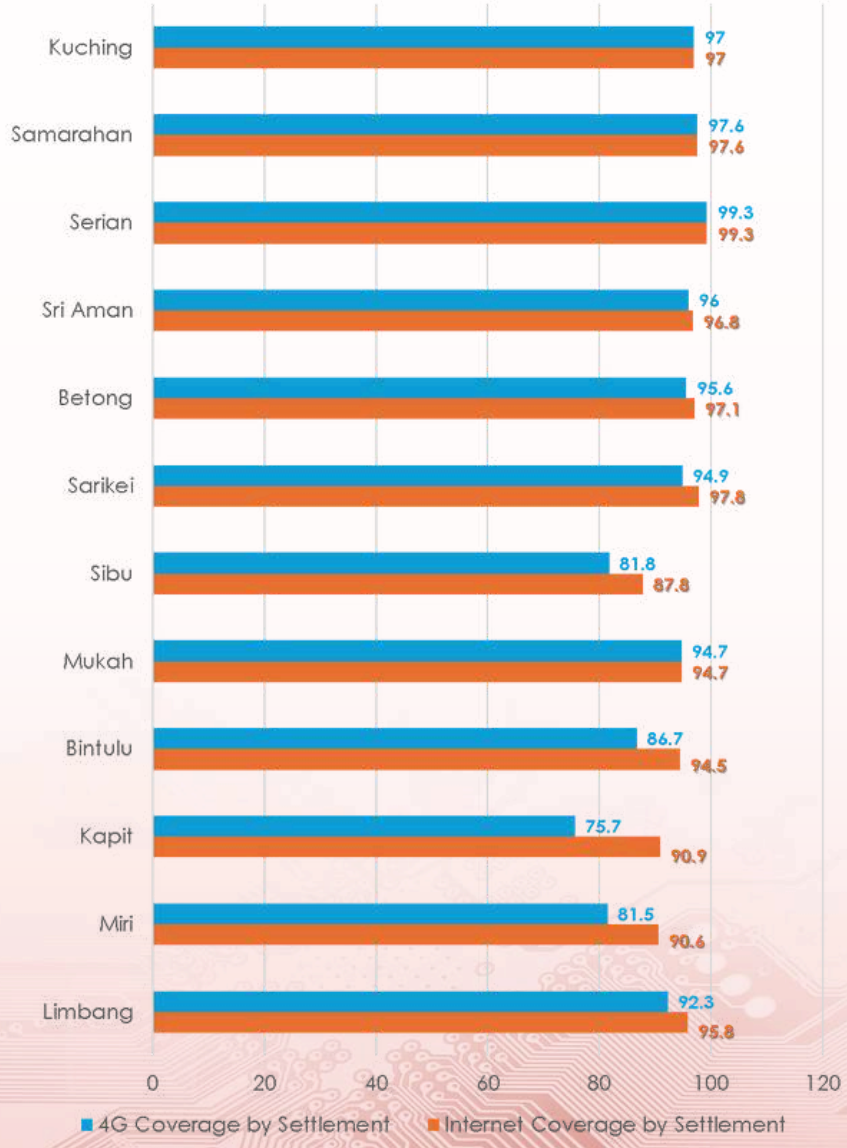
4G COVERAGE

Refers to how widely the 4G mobile network is available in a particular area or region. It shows where phones or devices can connect to 4G signals, allowing users to make calls, browse the internet, stream videos, use apps, and perform other online tasks.



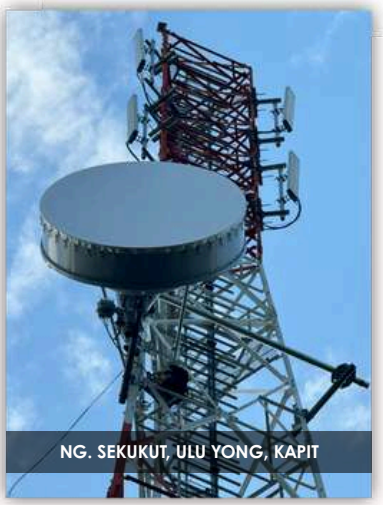
Source: Sarawak Multimedia Authority (SMA)

TELECOMMUNICATION COVERAGE PERCENTAGE BY DIVISION IN YEAR 2025

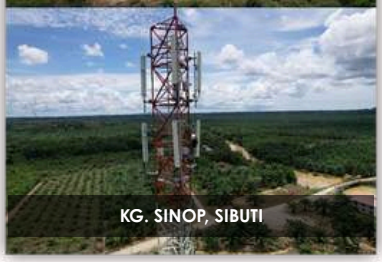


Source: Sarawak Multimedia Authority (SMA)

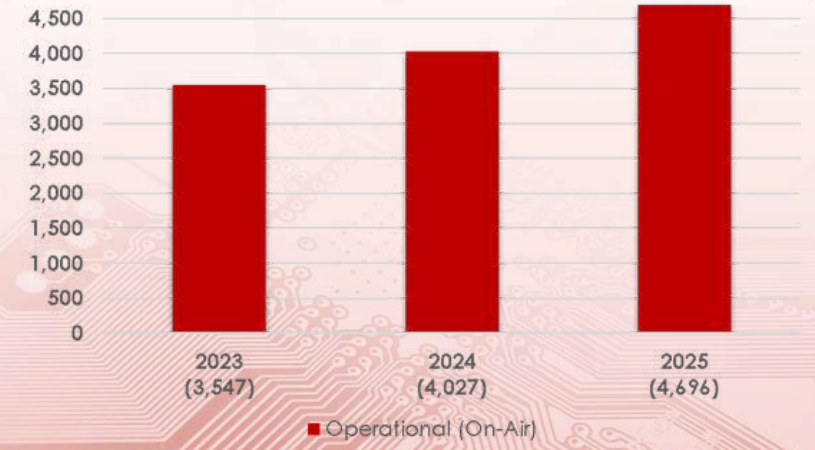
OVERVIEW OF TELECOMMUNICATION TOWER COUNTS IN SARAWAK (2023-2025)


NG. SEKUKUT, ULU YONG, KAPIT


KG. SINOP, SIBUTI


KG. SINOP, SIBUTI

OPERATIONAL TOWER BY YEAR



Source: Sarawak Multimedia Authority (SMA),
Malaysian Communications And Multimedia Commission (MCMC),
Sarawak Digital Economy Corporation (SDEC)

SARAWAK BROADBAND SUBSCRIPTIONS IN YEAR 2025

4,915,100 nos
FIXED BROADBAND SUBSCRIPTION

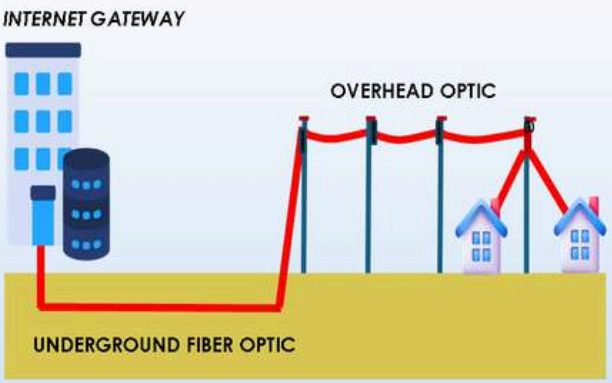
44,257,800 nos
MOBILE BROADBAND SUBSCRIPTION

Source: Malaysian Communications And Multimedia Commission (MCMC)

FIXED BROADBAND

FIXED BROADBAND

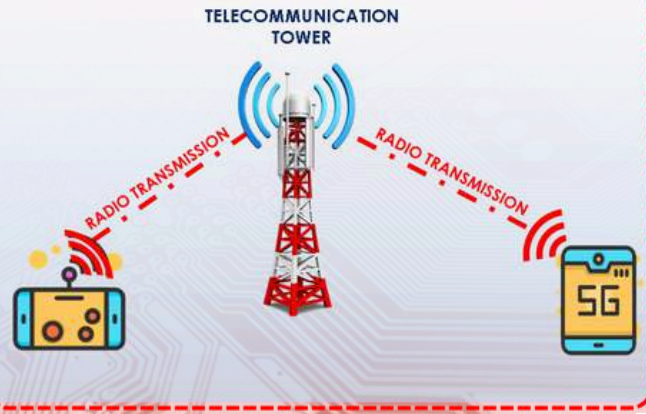
High-speed internet delivered through physical cables (like fibre optics) to a specific location, providing stable and consistent connectivity for homes or offices.



MOBILE BROADBAND

MOBILE BROADBAND

High-speed internet delivered without cables, using 4G/5G mobile networks, radio signals, or satellite connections, offering flexible and portable access.



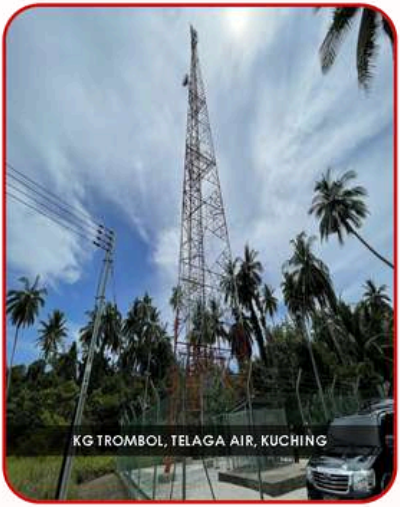
SARAWAK LINKING RURAL, URBAN AND NATION (SALURAN) INITIATIVES IN YEAR 2025

SARAWAK MULTIMEDIA AUTHORITY RURAL TELECOMMUNICATIONS (SMART) 618 TOWERS

618

SMART TOWERS
(including 18 repeaters)

ON-AIR WITH
MYSRBN



Source: Sarawak Digital Economy Corporation (SDEC)

SARAWAK LINKING RURAL, URBAN AND NATION (SALURAN) INITIATIVES IN YEAR 2025

SMART600 4G MOCN TOWER

With 4G MOCN

◆ **565** towers

Source: Sarawak Digital Economy Corporation (SDEC)

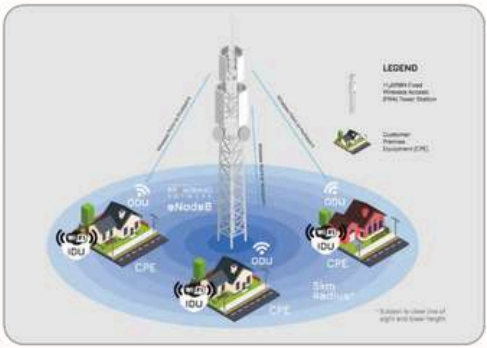
SARAWAK RURAL BROADBAND NETWORK (MYSRBN) IN YEAR 2025

Sarawak Rural Broadband Network (MySRBN), is a Sarawak Digital transformation initiative by the Sarawak Government under the Sarawak Digital Economy Corporation (SDEC), to digitalize Sarawak's economy and connect the rural communities with the world.

By deploying Fixed Wireless Broadband (FWB) technology solution, the Sarawak Government is committed to provide high-speed broadband service to the suburban and rural areas in Sarawak.

MYSRBN SERVICES STATUS

HOUSEHOLDS SUBSCRIPTIONS 2024	27,027
HOUSEHOLDS SUBSCRIPTIONS 2025	37,828



Source: Sarawak Digital Economy Corporation (SDEC)

ALLOCATED MYSRBN SITES BY DIVISIONS

FWB

Fixed Wireless Broadband (FWB) delivers high-speed internet using 4G LTE technology to homes and businesses. FWB is ideal for areas where fiber is difficult and costly to deploy, bringing reliable connectivity to rural or hard-to-reach locations without the need for fibre optic cables.

No	Division	MySRBN Sites
1	Kuching	25
2	Samarahan	28
3	Serian	11
4	Sri Aman	12
5	Betong	21
6	Sarikei	12
7	Sibu	11
8	Kapit	16
9	Mukah	25
10	Bintulu	8
11	Miri	15
12	Limbang	12
	Total	196

Source: Sarawak Digital Economy Corporation (SDEC)

SARAWAK LINKING RURAL, URBAN AND NATION (SALURAN) INITIATIVES IN YEAR 2025

NO	SALURAN	STRUCTURE
1	Sebauh Rural High-Speed Open Broadband Network	60 sites
2	Development of Point of Interconnect (POI) at Sarawak National Park	9 sites
3	Digital Socio Economy - SarawakNet	60 sites

Source: Sarawak Authority Multimedia (SMA)

JALINAN DIGITAL NEGARA (JENDELA) PHASE 1 INITIATIVES IN YEAR 2025

636
JENDELA TOWERS
ON-AIR WITH 4G

Fibre Optic Premise Pass

Ready for Service	193,212 nos
In Progress	18,076 nos

Source: Malaysian Communications And Multimedia Commission (MCMC)

JALINAN DIGITAL NEGARA (JENDELA) PHASE 1 INITIATIVE

Upgrading 3G to 4G services	4,697 base stations completed

Source: Malaysian Communications And Multimedia Commission (MCMC)

TELECOMMUNICATION TOWERS CONSTRUCTION PERIOD

The contract for the completion of a telecommunications tower generally takes 18 months and divided into 2 main stages:

Stage 1: Physical Tower Construction - 9 months
Stage 1 involves the process of land identification, site acquisition, survey work, site construction and tower erecting.

Stage 2: Equipment Installation - 9 months
Stage 2 involves power supply connection, telecommunications equipment installation, and service provisioning (bringing the site on-air).

5G IMPLEMENTATION IN SARAWAK

1st 5G Network

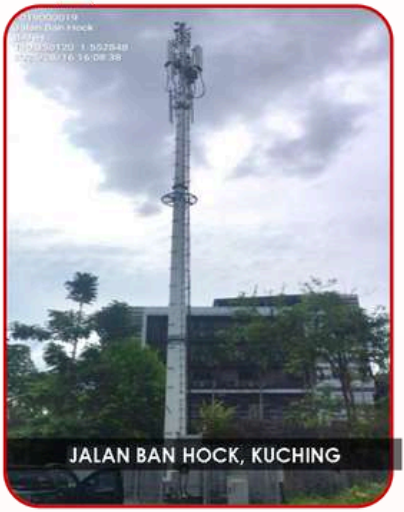
OPERATIONAL TOWERS (ON-AIR) ♦ **576** nos

Source: Digital Nasional Berhad (DNB)

MAP OF 1st 5G NETWORK IMPLEMENTATION IN SARAWAK

Source: Digital Nasional Berhad (DNB)

5G IMPLEMENTATION IN SARAWAK

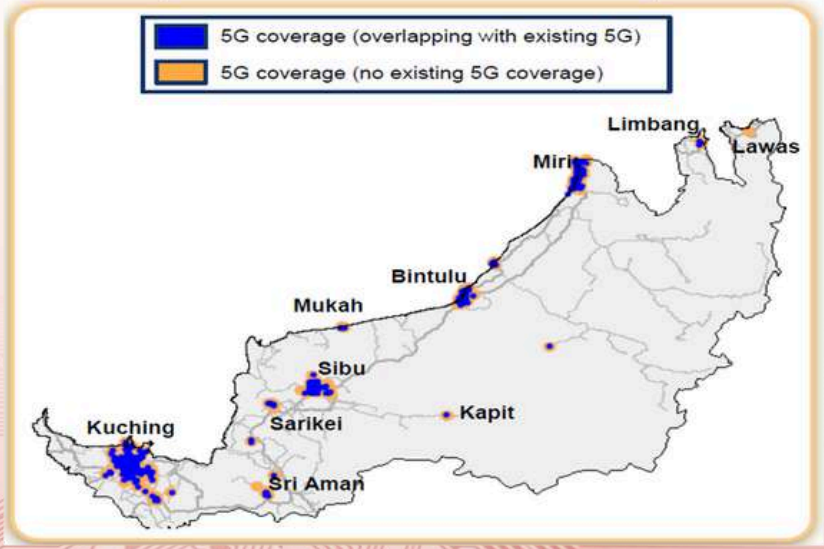


2nd 5G Network

TOTAL SITES	384 nos
OPERATIONAL TOWERS (ON-AIR)	60 nos

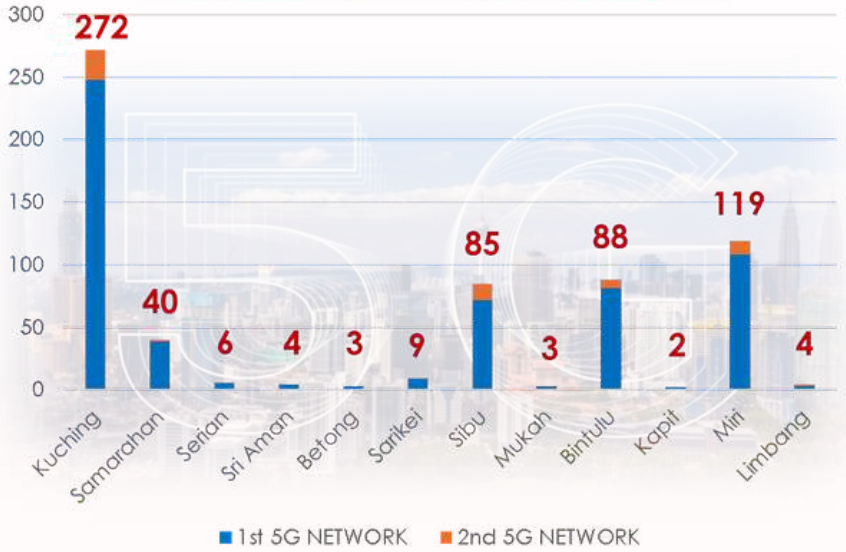
Source: U Mobile Sdn Bhd

MAP OF 2nd 5G NETWORK IMPLEMENTATION IN SARAWAK



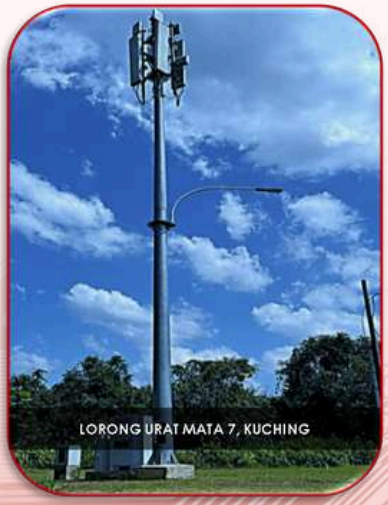
Source: U Mobile Sdn Bhd

5G SITES ON-AIR BY DIVISION



Source: Digital Nasional Berhad (DNB) and U-Mobile Sdn. Bhd.

5G POLES



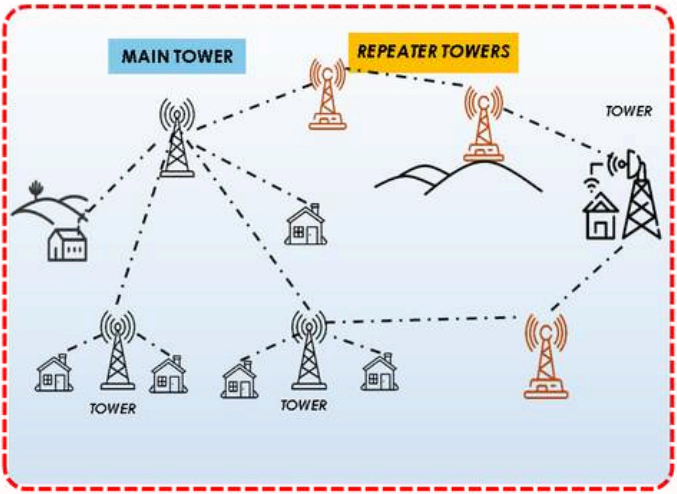
Sources: Digital Nasional Berhad (DNB)

Sources: U-Mobile Sdn. Bhd.

REPEATER TOWER

REPEATER TOWER

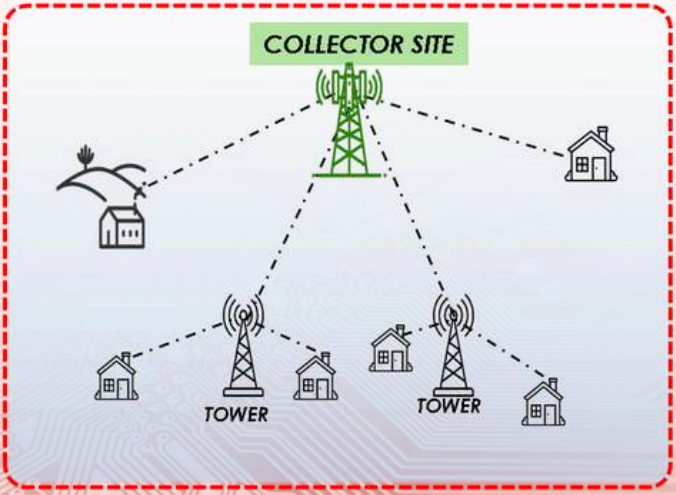
Repeater towers relay and boost network signals to overcome distance and terrain challenges. In rural areas, they extend coverage to remote communities, ensuring more reliable voice and data connectivity.



COLLECTOR SITE TOWER

COLLECTOR

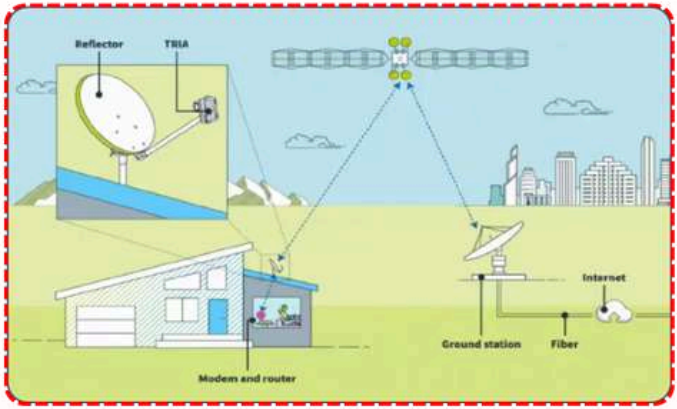
Collector towers gather and consolidate signals from nearby sites or devices before sending them to the main network. In rural areas, they help connect scattered villages by collecting multiple signals and funnelling them into a stronger, more stable backhaul link.



SATELLITE BROADBAND

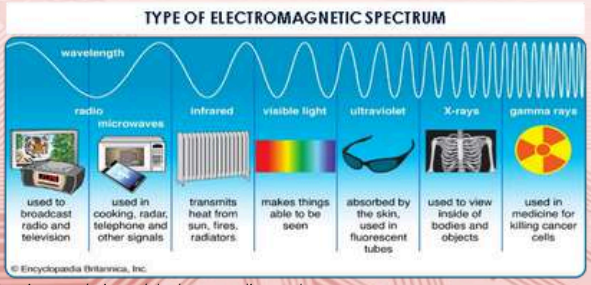
SATELLITE BROADBAND

Internet service that uses a satellite in Earth orbit to send and receive data, enabling connectivity for homes in remote or hard-to-reach areas where traditional broadband is unavailable.



ELECTROMAGNETIC SPECTRUM

	NON-IONIZING EMISSION				IONIZING EMISSION			
TYPE	Extremely Low Frequency	RF Emission	Microwave	Infrared	Visible Light	Ultraviolet	X-ray	Gamma Ray
EFFECT	NON-THERMAL Induces low currents	THERMAL Induces currents, Heating		OPTICAL Excites electron, Photo-chemical effects		BREAK MOLECULE BONDS Damages DNA		
SOURCE	Static Field, Powerline	TV, Radio, Base Station	Microwave oven	-	Lamp	UV water filter	Medical X-ray	Radioactive material

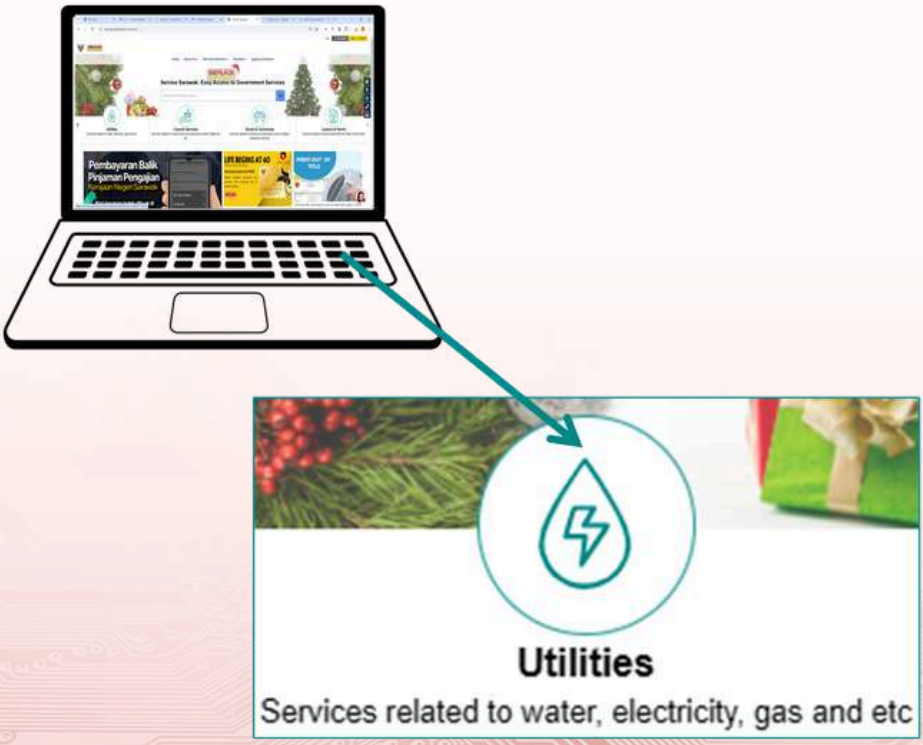


Source: https://www.britannica.com/science/electromagnetic-spectrum

MUT ONLINE SERVICES VIA SERVICE SARAWAK

To apply your application or access our services, kindly go to Service Sarawak URL:

https://service.sarawak.gov.my/web/



ABBREVIATIONS

1.	3G	Third Generation mobile network technology
2.	4G	Fourth Generation mobile network technology
3.	5G	Fifth Generation mobile network technology
4.	BWA	Broadband Wireless Access
5.	FWB	Fixed Wireless Broadband
6.	JENDELA	Jalinan Digital Negara
7.	MCMC	Malaysian Communications And Multimedia Commission
8.	MOCN	Multi-Operator Core Network
9.	MySRBN	Sarawak Rural Broadband Network
10.	POI	Point of Interconnect
11.	RF	Radio Frequency
12.	SALURAN	Sarawak Linking Rural, Urban And Nation
13.	SDEC	Sarawak Digital Economy Corporation
14.	SMA	Sarawak Multimedia Authority
15.	SMART	Sarawak Multimedia Authority Rural Telecommunications
16.	TCP	Transmission Control Protocol
17.	WIFI	Wireless Fidelity
18.	X-ray	X-radiation

FACTS AND FIGURES

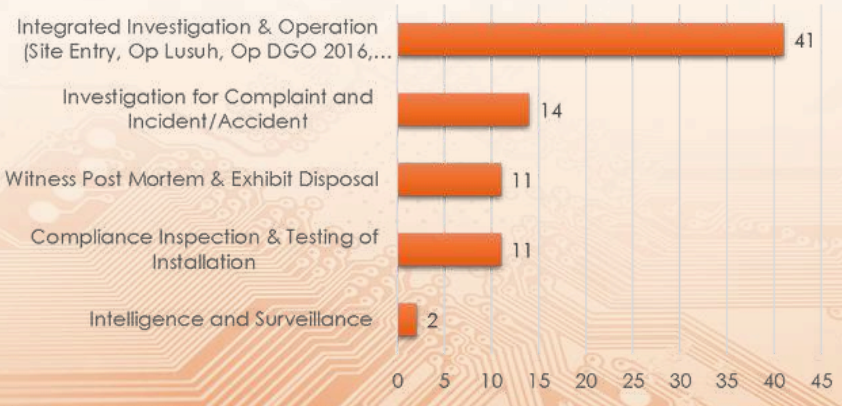
ENFORCEMENT & LEGAL

ENFORCEMENT ACTIVITIES

Enforcement activities carried out in the year 2025 with other agencies such as SAG, UKPS, PGA, PDRM, SEB, PETROS, Local Council, SIRIM & other related agencies

79 Enforcement & Investigation activities carried out through out Sarawak at **126** premises/ installation in year 2025

NUMBER OF ENFORCEMENT ACTIVITIES BY ELD FOR YEAR 2025



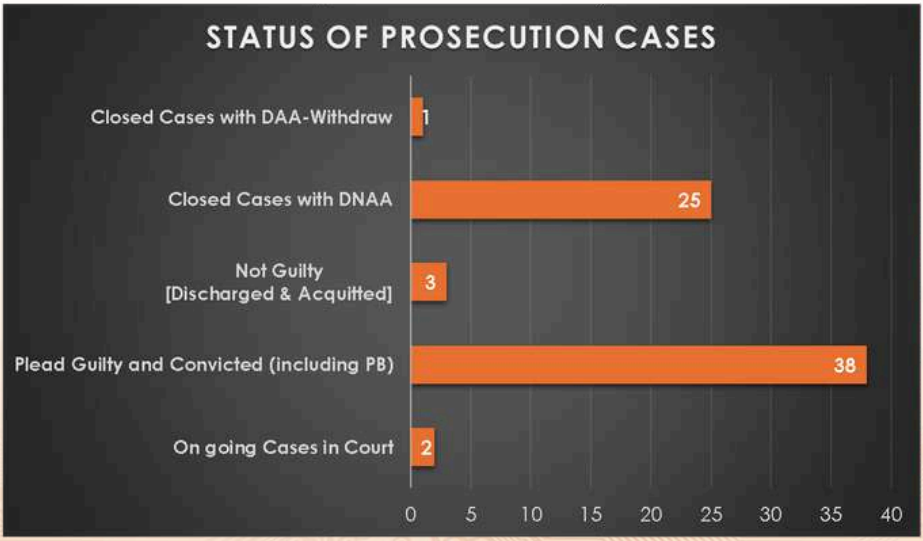
CASES UNDER THE ELECTRICITY ORDINANCE, 2007 (CAP.50)

NUMBER OF PROSECUTED CASES BY YEAR

Year	No. of Cases
2013-2018	8
2019	8
2020	2
2021	5
2022	10
2023	17
2024	4
2025	15
Total:	**69**

NUMBER OF PROSECUTED CASES BY DIVISION

Division	No. of Cases
Kuching	18
Samarahan	3
Sibu	20
Miri	28
Total:	**69**



Total penalty (fines) excluded Bond under EO2007 = RM876,000.00

CASES UNDER THE DISTRIBUTION OF GAS ORDINANCE, 2016 (CAP.72)

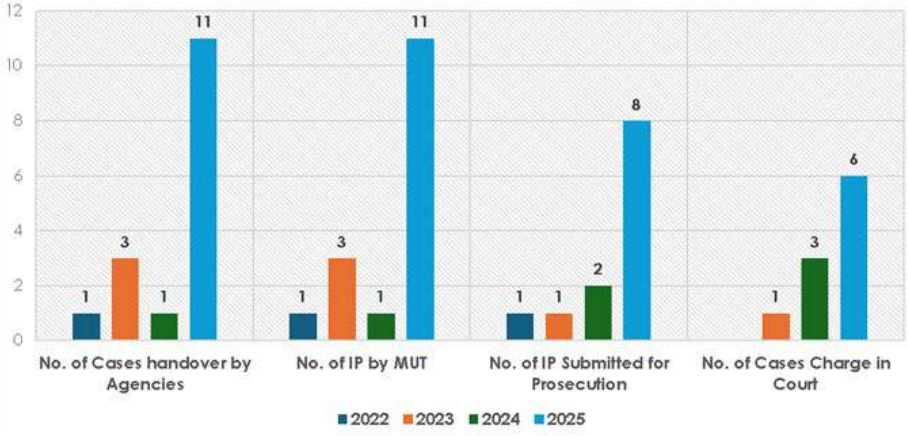
CASES HANDED OVER FROM AGENCIES

Agency	No. of Cases
Ministry of Domestic Trade and Cost of Living (KPDN)	2
Malaysian Maritime Enforcement Agency (APMM)	1
General Operation Force (PGA)	10
The Malaysian Army (TDM)	1
Unit Keselamatan dan Penguatkuasaan Sarawak (UKPS)	2
Total:	**16**

CASES HANDED OVER BY DIVISION

Division	No. of Cases
Kuching	4
Serian	1
Sri Aman	9
Limbang	2
Total:	**16**

STATUS OF CASES UNDER DGO2016



Total penalty (fines excluding Bond) under DGO2016 = RM37,000.00

VANDALISM CASES ON UTILITY AND TELECOMMUNICATION INFRASTRUCTURE

VANDALISM CASE STATISTICS SINCE 2023 - 2025

Sector	Total Cases by Year		
	2023	2024	2025
Telecommunication	1,079	832	167*
Electricity Supply	266	185	157**
Water Supply	57	1432	563**
Gas Distribution	5	9	7**
Total Cases:	**1,407**	**2,458**	**894**

VANDALISM CASE STATISTICS BY DIVISION FOR THE YEAR 2025

Division	Telecommunication*	Electric**	Water**	Gas**
Kuching	54	24	104	-
Samarahan	5	3	49	-
Serian	22	-	57	-
Sri Aman	3	35	25	-
Betong	1	-	-	-
Sarikei	11	6	7	-
Sibu	11	36	74	-
Kapit	-	1	-	-
Mukah	2	18	2	-
Bintulu	53	18	106	-
Miri	5	16	136	7
Limbang	-	-	3	-
Total	**167**	**157**	**563**	**7**
LOSSES (RM)	**2.09M**	**2.40M**	**230.6K**	**12.5K**

Remarks:
*data until June 2025
**data until September 2025

Source: Utility and Telecommunication Agencies

VANDALISM CASES ON UTILITY AND TELECOMMUNICATION INFRASTRUCTURE

VANDALISM CASES BY YEAR (2023-2025)

Sector	Total Cases by Year			Grand Total Cases	Grand Total Losses (RM)
	2023	2024	2025	2023-2025	
Telecommunication*	1,079	832	167	2,078	21.07M
Electricity Supply**	266	185	157	608	8.46 M
Water Supply**	57	1432	563	2,052	2.12 M
Gas Distribution**	5	9	7	21	0.09M
Total Cases:	1,407	2,458	894	4,759	
Total Losses (RM):	19.67M	7.34M	4.73M		31.74M

LOSSES IN 2025
RM4.73 M

TOTAL LOSSES
2024 - RM7.34M
2025 - RM4.73M
DROPPED 36%

TOTAL CASES
2024 - 2,458
2025 - 894
DROPPED 64%

Remarks:
*data until June 2025
**data until September 2025

Source: Utility and Telecommunication Agencies

OPS LUSUH 2025

'OPS LUSUH' 2025

2 Operations

No	Date	Ops Lusuh
1.	21-25 Feb 2025	OP Mega Lusuh Bersepadu Bil. 1/2025
2.	14 August 2025	OP Lusuh Khas

Source: PDRM

"OPS Lusuh" Led by the PDRM with MUT and Utility agencies

Source: PDRM

COMMUNITY AND AWARENESS PROGRAMMES ON VANDALISM

ANTI-VANDALISM PROGRAMMES (2023 TO 2025)

- Two (2) Anti-Vandalism Campaigns in Kuching and Bintulu.
- Five (5) Outreach Programmes at Secondary Schools.
- Twenty-Nine (29) Anti-Vandalism Sessions and Exhibitions involving the Public.

ANTI-VANDALISM AWARENESS PROGRAMMES

Held in conjunction with Launching of
Tebedu Booster Station
(13th September 2025)

SMK Agama, Miri
(1st October 2025)

ABBREVIATIONS

1.	APMM	Malaysian Maritime Enforcement Agency
2.	DGO 2016	Distribution of Gas Ordinance, 2016
3.	DAA	Discharged & Acquitted
4.	DNAA	Dismissal Not Amounting to Acquittal
5.	EA	Executive Action
6.	ELD	Enforcement and Legal Division
7.	EO 2007	Electricity Ordinance, 2007
8.	IP	Investigation Paper
9.	KPDN	Ministry of Domestic Trade and Cost of Living
10.	LPG	Liquefied Petroleum Gas
11.	MUT	Ministry of Utility and Telecommunication Sarawak
12.	OPS	Operation
13.	PB	Plea Bargain
14.	PDRM	Polis Diraja Malaysia
15.	PETROS	Petroleum Sarawak Berhad
16.	PG	Plead Guilty
17.	PGA	General Operation Force
18.	SAG	Sarawak State Attorney-General
19.	SEB	Sarawak Energy Berhad
20.	SIRIM	Standard and Industrial Research Institute of Malaysia
21.	TDM	Tentera Darat Malaysia
22.	TLP	Transmission Line Project
23.	UKPS	Sarawak Security and Enforcement Unit

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