



KEMENTERIAN EKONOMI  
JABATAN PERANGKAAN MALAYSIA

**B//23**

# **BANCI EKONOMI** *ECONOMIC CENSUS* **2023**



**BEKALAN ELEKTRIK, GAS, WAP DAN  
PENDINGIN UDARA**

*ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY*

**JABATAN PERANGKAAN MALAYSIA**  
*Department of Statistics Malaysia*



KEMENTERIAN EKONOMI  
JABATAN PERANGKAAN MALAYSIA

**BANCI EKONOMI**  
**ECONOMIC CENSUS**  
**2023**

**BEKALAN ELEKTRIK, GAS, WAP DAN  
PENDINGIN UDARA**

*Electricity, Gas, Steam and Air  
Conditioning Supply*

**Pemakluman**

Jabatan Perangkaan Malaysia (DOSM) telah melancarkan OpenDOSM NextGen sebagai medium yang menyediakan katalog data dan visualisasi bagi memudahkan pengguna menganalisis pelbagai data dan boleh diakses melalui portal <https://open.dosm.gov.my>.

DOSM sedang menjalankan Banci Pertanian pada tahun 2024. Sila layari <https://www.myagricensus.gov.my> untuk maklumat lanjut. Tema adalah "Banci Pertanian, Kunci Kemajuan Pertanian".

Kerajaan Malaysia telah mengisytiharkan Hari Statistik Negara (MyStats Day) pada 20 Oktober setiap tahun. Tema sambutan MyStats Day adalah "Statistik Nadi Kehidupan". DOSM menyambut ulang tahun ke - 75 Jubli Intan pada tahun 2024.

**Announcement**

*The Department of Statistics Malaysia (DOSM) has launched OpenDOSM NextGen as a medium that provides a catalogue of data and visualisations to facilitate users' analysis of various data and can be accessed through <https://open.dosm.gov.my>.*

*DOSM is conducting the Agricultural Census in 2024. Please visit <https://www.myagricensus.gov.my> for more information. The theme is "Agriculture Census, Key to Agricultural Development".*

*The Government of Malaysia has declared National Statistics Day (MyStats Day) on October 20th each year. MyStats Day theme is "Statistics is the Essence of Life". DOSM commemorates its 75th Diamond Jubilee in 2024.*

Diterbitkan dan dicetak oleh / *Published and printed by:*

**Jabatan Perangkaan Malaysia**

***Department of Statistics Malaysia***

Blok C6 & C7, Kompleks C,

Pusat Pentadbiran Kerajaan Persekutuan,

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Emel / *E-mail* : [info@dosm.gov.my](mailto:info@dosm.gov.my) (pertanyaan umum / *general enquiries*)

[data@dosm.gov.my](mailto:data@dosm.gov.my) (pertanyaan & permintaan data / *data request enquiries*)

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Diterbitkan pada Ogos 2024 / *Published in August 2024*

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Tiada bahagian daripada terbitan ini boleh diterbitkan semula, disimpan untuk pengeluaran atau ditukar dalam apa-apa bentuk atau alat apa jua pun kecuali setelah mendapat kebenaran daripada Jabatan Perangkaan Malaysia. Pengguna yang mengeluarkan sebarang maklumat dari terbitan ini sama ada yang asal atau diolah semula hendaklah meletakkan kenyataan berikut:

“Sumber: Jabatan Perangkaan Malaysia”

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**ISBN 978-967-253-723-6**

Penerbitan Banci Ekonomi 2023 subsektor Bekalan elektrik, gas, wap dan pendingin udara memaparkan statistik yang diperoleh daripada Banci Ekonomi 2023 bagi tahun rujukan 2022. Banci ini meliputi semua pertubuhan berdaftar yang terlibat dalam aktiviti ekonomi termasuk di dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara. Pertubuhan dikelaskan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0, berdasarkan *International Standard Industrial Classification of All Economic Activities (ISIC)*, Revision 4, 2008. Banci terdahulu telah dijalankan pada tahun 2016, bagi tahun rujukan 2015.

Statistik utama berkaitan dengan bilangan pertubuhan, output kasar, input perantaraan, nilai ditambah, pekerja, gaji & upah dan harta tetap dilaporkan dalam penerbitan ini di peringkat nasional dan negeri. Selain itu, statistik mengenai pemilikan wanita turut dipaparkan. Statistik ini boleh digunakan oleh agensi kerajaan, ahli ekonomi, ahli akademik, pihak swasta serta individu bagi tujuan membuat perancangan dan penggubalan dasar, analisis ekonomi, unjuran dan dapat membantu merancang pembangunan perniagaan.

Penerbitan ini dibahagikan kepada empat bahagian. Bahagian pertama memaparkan sorotan utama statistik untuk subsektor Bekalan elektrik, gas, wap dan pendingin udara, diikuti ringkasan penemuan dalam bahagian kedua. Sementara itu, bahagian ketiga memaparkan jadual statistik terperinci, manakala bahagian keempat merangkumi aspek teknikal, termasuk skop dan liputan, konsep dan definisi, serta pembolehubah utama.

Jabatan Perangkaan Malaysia (DOSM) merakamkan setinggi-tinggi penghargaan atas kerjasama semua pihak yang telah menyediakan data yang diperlukan dan menyumbang kepada kejayaan penerbitan ini. Setiap maklum balas dan cadangan ke arah menambah baik laporan pada masa hadapan adalah amat dihargai.

**DATO' SRI DR. MOHD UZIR MAHIDIN**

Ketua Perangkawan Malaysia

**Ogos 2024**



*The Economic Census 2023 Electricity, gas, steam and air conditioning supply sub-sector publication presents the statistics obtained from the Economic Census 2023 for the reference year 2022. The census covered all registered establishments engaged in economic activities including of Electricity, gas, steam and air conditioning supply sub-sector. The establishments are classified according to Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0, following the International Standard Industrial Classification of All Economic Activities (ISIC), Revision 4, 2008. The previous census was conducted in 2016, for the reference year of 2015.*

*Key statistics pertaining to number of establishments, gross output, intermediate input, value added, persons engaged, salaries & wages and fixed assets are reported in this publication at national and state level. Additionally, statistics women ownership are also presented. These statistics can be used by government agencies, economists, academicians, private sectors and individuals for planning and formulating policies, economic analysis, projections and assisting in business development planning.*

*The publication is divided into four parts. The first part displays the main highlights of statistics for the of Electricity, gas, steam and air conditioning supply sub-sector, followed by a summary of findings in the second part. Meanwhile, the third part provides detailed statistical tables, while the fourth part covers technical aspects, including scope and coverage, concepts and definitions, and explanations of key variables.*

*The Department of Statistics Malaysia (DOSM) gratefully acknowledges the cooperation of all parties who have provided the required data and contributed to the success of this publication. Every feedback and suggestion towards improving future reports is highly appreciated.*

**DATO' SRI DR. MOHD UZIR MAHIDIN**

*Chief Statistician Malaysia*

**August 2024**

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# **SOROTAN UTAMA**

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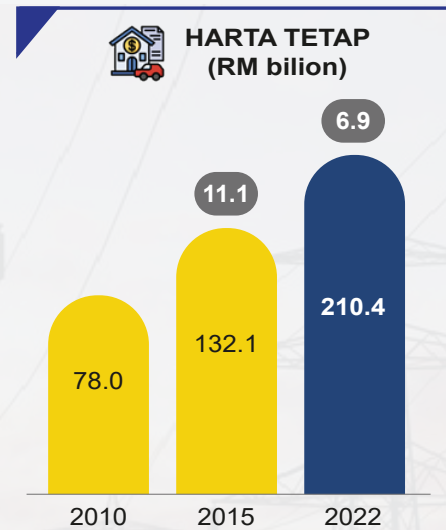
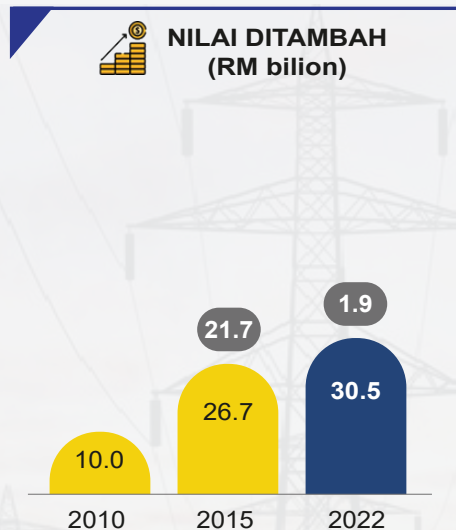
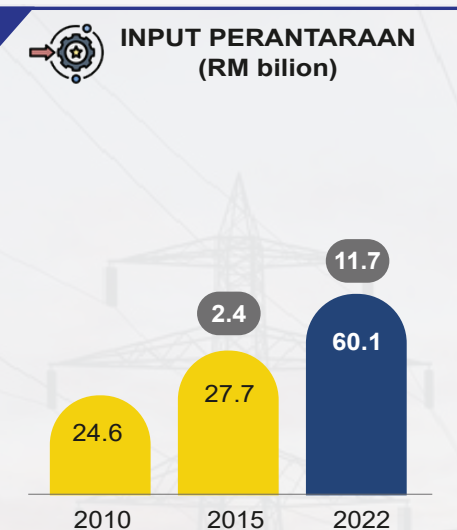
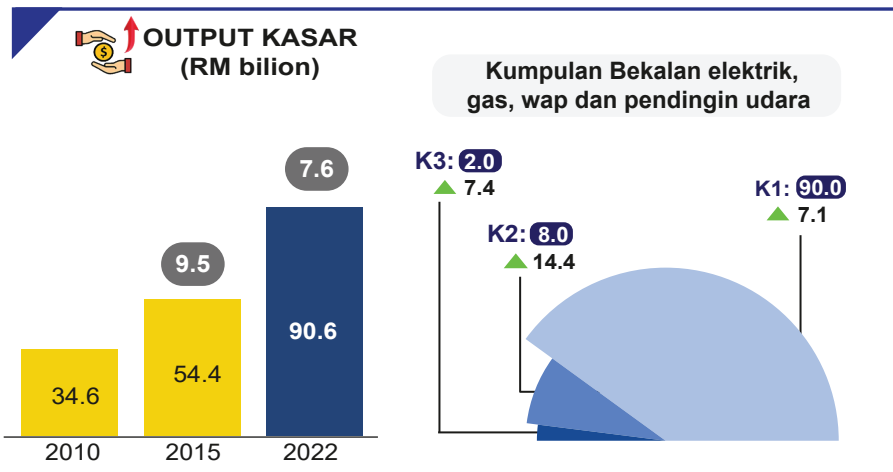
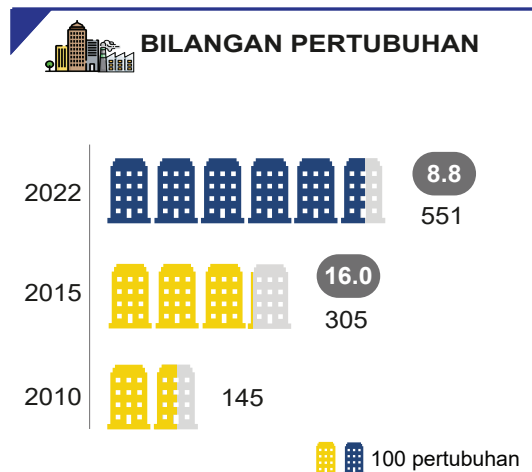
## **BAHAGIAN 1**

*PART*

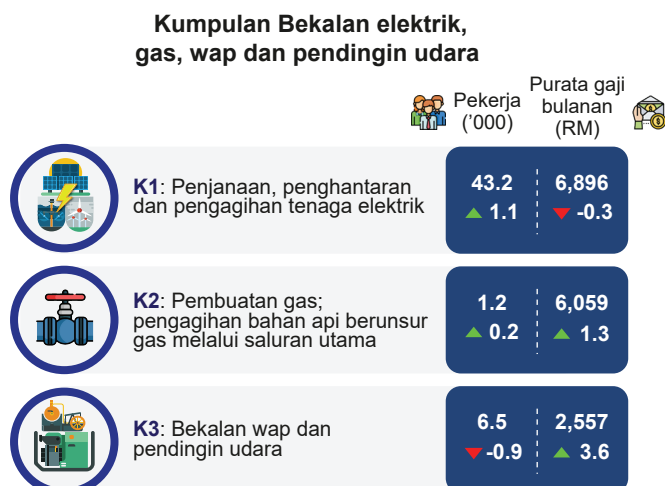
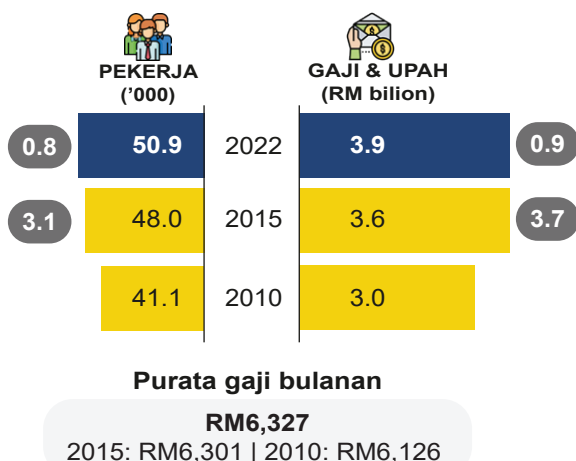
# BANCI EKONOMI 2023 SUBSEKTOR BEKALAN ELEKTRIK, GAS, WAP DAN PENDINGIN UDARA

## STATISTIK UTAMA

Nilai output kasar subsektor Bekalan elektrik, gas, wap dan pendingin udara mencapai RM90.6 bilion pada tahun 2022, dengan peningkatan tahunan 7.6 peratus



### PEKERJA DAN GAJI & UPAH



Nota:  Kadar Pertumbuhan Tahunan (CAGR)  Peratusan Sumbangan



# BANKI EKONOMI 2023 SUBSEKTOR BEKALAN ELEKTRIK, GAS, WAP DAN PENDINGIN UDARA

## STATISTIK UTAMA NEGERI

|                      |                                                                                     | OUTPUT KASAR<br> | INPUT PERANTARAAN<br> | NILAI DITAMBAH<br> | BILANGAN PEKERJA<br> | GAJI & UPAH<br> | HARTA TETAP<br> |
|----------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------|
| Johor                |    | RM11.59b                                                                                          | RM8.58b                                                                                                | RM3.02b                                                                                             | 1,876                                                                                                   | RM0.14b                                                                                            | RM15.08b                                                                                           |
| Kedah                |    | RM0.76b                                                                                           | RM0.60b                                                                                                | RM0.16b                                                                                             | 389                                                                                                     | RM0.02b                                                                                            | RM5.68b                                                                                            |
| Kelantan             |    | RM0.09b                                                                                           | RM0.05b                                                                                                | RM0.04b                                                                                             | 293                                                                                                     | RM0.01b                                                                                            | RM0.64b                                                                                            |
| Melaka               |    | RM3.68b                                                                                           | RM3.03b                                                                                                | RM0.65b                                                                                             | 392                                                                                                     | RM0.03b                                                                                            | RM4.65b                                                                                            |
| Negeri Sembilan      |   | RM6.77b                                                                                           | RM4.98b                                                                                                | RM1.79b                                                                                             | 703                                                                                                     | RM0.04b                                                                                            | RM14.75b                                                                                           |
| Pahang               |  | RM0.21b                                                                                           | RM0.11b                                                                                                | RM0.10b                                                                                             | 390                                                                                                     | RM0.02b                                                                                            | RM3.88b                                                                                            |
| Pulau Pinang         |  | RM1.91b                                                                                           | RM1.70b                                                                                                | RM0.22b                                                                                             | 797                                                                                                     | RM0.03b                                                                                            | RM1.48b                                                                                            |
| Perak                |  | RM10.29b                                                                                          | RM8.76b                                                                                                | RM1.53b                                                                                             | 1,557                                                                                                   | RM0.09b                                                                                            | RM9.31b                                                                                            |
| Perlis               |  | RM0.89b                                                                                           | RM0.30b                                                                                                | RM0.59b                                                                                             | 213                                                                                                     | RM0.02b                                                                                            | RM2.68b                                                                                            |
| Selangor             |  | RM13.22b                                                                                          | RM9.60b                                                                                                | RM3.61b                                                                                             | 3,664                                                                                                   | RM0.24b                                                                                            | RM6.25b                                                                                            |
| Terengganu           |  | RM0.18b                                                                                           | RM0.11b                                                                                                | RM0.07b                                                                                             | 798                                                                                                     | RM0.03b                                                                                            | RM2.77b                                                                                            |
| Sabah                |  | RM3.18b                                                                                           | RM2.76b                                                                                                | RM0.42b                                                                                             | 4,775                                                                                                   | RM0.29b                                                                                            | RM5.98b                                                                                            |
| Sarawak              |  | RM11.56b                                                                                          | RM6.28b                                                                                                | RM5.28b                                                                                             | 5,957                                                                                                   | RM0.41b                                                                                            | RM27.94b                                                                                           |
| *Wilayah Persekutuan |  | RM26.25b                                                                                          | RM13.29b                                                                                               | RM12.96b                                                                                            | 29,065                                                                                                  | RM2.50b                                                                                            | RM109.35b                                                                                          |

\* Termasuk Wilayah Persekutuan Kuala Lumpur, Labuan dan Putrajaya

Nota: b: bilion

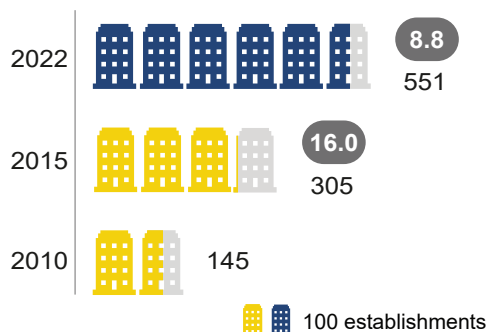
# ECONOMIC CENSUS 2023 ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY

## KEY STATISTICS

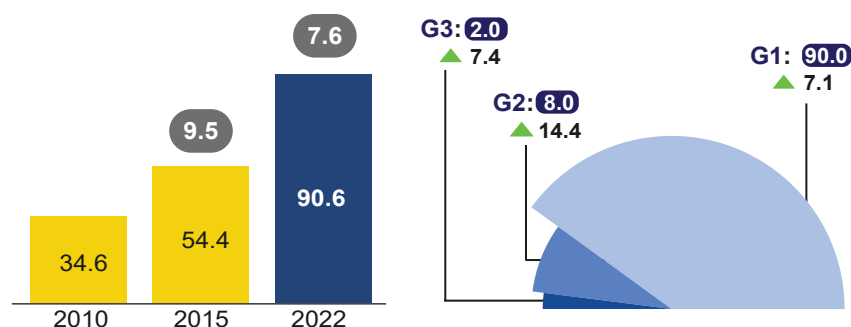
The value of gross output for Electricity, gas, steam and air conditioning supply sub-sector reached RM90.6 billion in 2022, with an annual increase of 7.6 per cent



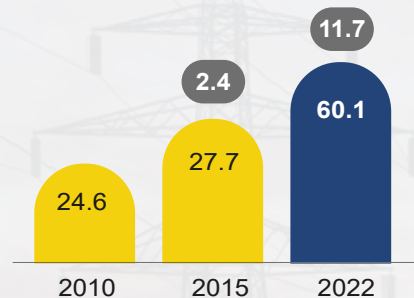
### NUMBER OF ESTABLISHMENTS



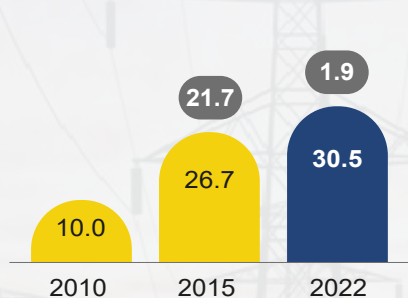
### GROSS OUTPUT (RM billion)



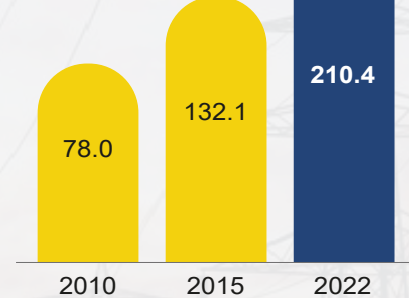
### INTERMEDIATE INPUT (RM billion)



### VALUE ADDED (RM billion)

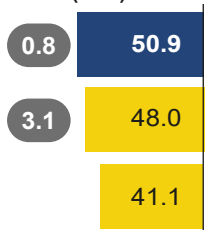


### FIXED ASSETS (RM billion)

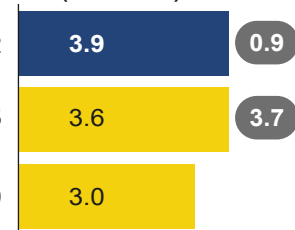


## PERSONS ENGAGED AND SALARIES & WAGES

### PERSONS ENGAGED ('000)



### SALARIES & WAGES (RM billion)



### Average monthly salary

RM6,327  
2015: RM6,301 | 2010: RM6,126

## Electricity, gas, steam and air conditioning supply group

|                                                                     | Persons engaged ('000) | Average monthly salary (RM) |
|---------------------------------------------------------------------|------------------------|-----------------------------|
| G1: Electric power generation, transmission and distribution        | 43.2<br>▲ 1.1          | 6,896<br>▼ -0.3             |
| G2: Manufacture of gas; distribution of gaseous fuels through mains | 1.2<br>▲ 0.2           | 6,059<br>▲ 1.3              |
| G3: Steam and air conditioning supply                               | 6.5<br>▼ -0.9          | 2,557<br>▲ 3.6              |

Nota: ▲ ▼ Compound Annual Growth Rate (CAGR)  
■ Percentage Share

# ECONOMIC CENSUS 2023 ELECTRICITY, GAS, STEAM AND AIR CONDITIONING SUPPLY

## STATES KEY STATISTICS

|                      |                                                                                     | GROSS OUTPUT<br> | INTERMEDIATE INPUT<br> | VALUE ADDED<br> | PERSONS ENGAGED<br> | SALARIES & WAGES<br> | FIXED ASSETS<br> |
|----------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|
| Johor                |    | RM11.59b                                                                                          | RM8.58b                                                                                                 | RM3.02b                                                                                          | 1,876                                                                                                  | RM0.14b                                                                                                 | RM15.08b                                                                                            |
| Kedah                |    | RM0.76b                                                                                           | RM0.60b                                                                                                 | RM0.16b                                                                                          | 389                                                                                                    | RM0.02b                                                                                                 | RM5.68b                                                                                             |
| Kelantan             |    | RM0.09b                                                                                           | RM0.05b                                                                                                 | RM0.04b                                                                                          | 293                                                                                                    | RM0.01b                                                                                                 | RM0.64b                                                                                             |
| Melaka               |    | RM3.68b                                                                                           | RM3.03b                                                                                                 | RM0.65b                                                                                          | 392                                                                                                    | RM0.03b                                                                                                 | RM4.65b                                                                                             |
| Negeri Sembilan      |   | RM6.77b                                                                                           | RM4.98b                                                                                                 | RM1.79b                                                                                          | 703                                                                                                    | RM0.04b                                                                                                 | RM14.75b                                                                                            |
| Pahang               |  | RM0.21b                                                                                           | RM0.11b                                                                                                 | RM0.10b                                                                                          | 390                                                                                                    | RM0.02b                                                                                                 | RM3.88b                                                                                             |
| Pulau Pinang         |  | RM1.91b                                                                                           | RM1.70b                                                                                                 | RM0.22b                                                                                          | 797                                                                                                    | RM0.03b                                                                                                 | RM1.48b                                                                                             |
| Perak                |  | RM10.29b                                                                                          | RM8.76b                                                                                                 | RM1.53b                                                                                          | 1,557                                                                                                  | RM0.09b                                                                                                 | RM9.31b                                                                                             |
| Perlis               |  | RM0.89b                                                                                           | RM0.30b                                                                                                 | RM0.59b                                                                                          | 213                                                                                                    | RM0.02b                                                                                                 | RM2.68b                                                                                             |
| Selangor             |  | RM13.22b                                                                                          | RM9.60b                                                                                                 | RM3.61b                                                                                          | 3,664                                                                                                  | RM0.24b                                                                                                 | RM6.25b                                                                                             |
| Terengganu           |  | RM0.18b                                                                                           | RM0.11b                                                                                                 | RM0.07b                                                                                          | 798                                                                                                    | RM0.03b                                                                                                 | RM2.77b                                                                                             |
| Sabah                |  | RM3.18b                                                                                           | RM2.76b                                                                                                 | RM0.42b                                                                                          | 4,775                                                                                                  | RM0.29b                                                                                                 | RM5.98b                                                                                             |
| Sarawak              |  | RM11.56b                                                                                          | RM6.28b                                                                                                 | RM5.28b                                                                                          | 5,957                                                                                                  | RM0.41b                                                                                                 | RM27.94b                                                                                            |
| *Wilayah Persekutuan |  | RM26.25b                                                                                          | RM13.29b                                                                                                | RM12.96b                                                                                         | 29,065                                                                                                 | RM2.50b                                                                                                 | RM109.35b                                                                                           |

\* Includes Wilayah Persekutuan Kuala Lumpur, Labuan and Putrajaya

Note: b: billion

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# **RINGKASAN PENEMUAN**

*SUMMARY OF  
FINDINGS*



**BAHAGIAN 2**  
*PART*



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## 1. Pengenalan

Laporan ini membentangkan statistik bagi subsektor Bekalan elektrik, gas, wap dan pendingin udara yang diperoleh daripada Banci Ekonomi 2023 bagi tahun rujukan 2022. Statistik utama yang diliputi dalam laporan ini terdiri daripada bilangan pertubuhan, output kasar, input perantaraan, nilai ditambah, bilangan pekerja, gaji & upah dan harta tetap. Liputan Banci Ekonomi 2023 bagi subsektor Bekalan elektrik, gas, wap dan pendingin udara merangkumi liputan industri berdasarkan Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0. Subsektor Bekalan elektrik, gas, wap dan pendingin udara terdiri daripada tiga kumpulan iaitu Penjanaan, penghantaran dan pengagihan tenaga elektrik, Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama dan Bekalan wap dan pendingin udara.

## 2. Prestasi Subsektor Bekalan Elektrik, Gas, Wap dan Pendingin Udara

Subsektor Bekalan elektrik, gas, wap dan pendingin udara di Malaysia menghasilkan output kasar berjumlah RM90.6 bilion pada tahun 2022, meningkat 7.6 peratus setahun daripada RM54.4 bilion pada tahun 2015. Selaras dengan peningkatan dalam output kasar, nilai input perantaraan juga meningkat 11.7 peratus setahun kepada RM60.1 billion (2015: RM27.7 bilion). Ini menghasilkan nilai ditambah RM30.5 bilion pada tahun 2022, meningkat 1.9 peratus daripada tahun 2015. Tambahan lagi, terdapat 50,869 orang pekerja yang terlibat dalam subsektor ini, lebih tinggi berbanding 47,972 orang yang direkodkan pada tahun 2015. Jumlah pekerja dalam subsektor ini juga meningkat 0.8 peratus setahun. Selaras dengan itu, gaji & upah meningkat kepada RM3.9 bilion pada tahun 2022, naik daripada RM3.6 billion pada tahun 2015 dengan pertumbuhan tahunan sebanyak 0.9 peratus. Sementara itu, harta tetap meningkat 6.9 peratus kepada RM210.4 bilion pada tahun 2022 (2015: RM132.1 bilion) seperti yang ditunjukkan dalam **Paparan 1**.

**Paparan 1: Statistik Utama Subsektor Bekalan Elektrik, Gas, Wap dan Pendingin Udara, 2015 dan 2022**

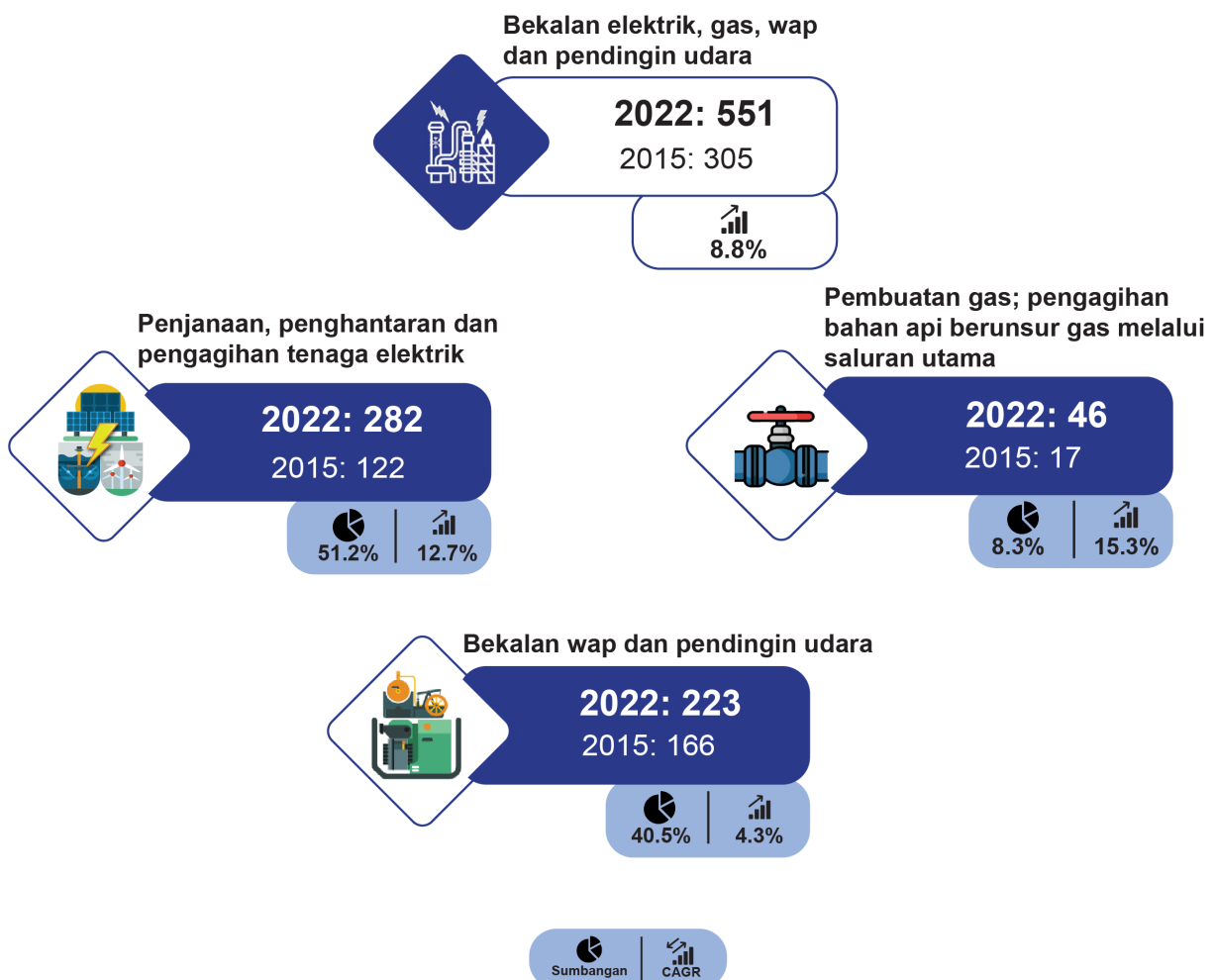
|                                                                                                         | 2015           | 2022           | CAGR<br>2022 / 2015 |
|---------------------------------------------------------------------------------------------------------|----------------|----------------|---------------------|
|  Bilangan Pertubuhan | 305            | 551            | 8.8%                |
|  Output Kasar        | RM54.4 bilion  | RM90.6 bilion  | 7.6%                |
|  Input Perantaraan   | RM27.7 bilion  | RM60.1 bilion  | 11.7%               |
|  Nilai Ditambah      | RM26.7 bilion  | RM30.5 bilion  | 1.9%                |
|  Pekerja             | 47,972         | 50,869         | 0.8%                |
|  Gaji & Upah         | RM3.6 bilion   | RM3.9 bilion   | 0.9%                |
|  Harta Tetap         | RM132.1 bilion | RM210.4 bilion | 6.9%                |

### 3. Bilangan Pertubuhan

#### 3.1 Bilangan Pertubuhan mengikut Kumpulan

Subsektor Bekalan elektrik, gas, wap dan pendingin udara menunjukkan kadar pertumbuhan tahunan 8.8 peratus dalam bilangan pertubuhan, mencapai 551 pertubuhan pada tahun 2022 (2015: 305 pertubuhan). Lebih daripada 50 peratus pertubuhan dalam subsektor ini terlibat dalam kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik (sumbangan: 51.2%), diikuti oleh kumpulan Bekalan wap dan pendingin udara (sumbangan: 40.5%). Sementara itu, kumpulan Pembuatan gas: pengagihan bahan api berunsur gas melalui saluran utama dengan sumbangan 8.3 peratus seperti di **Paparan 2**.

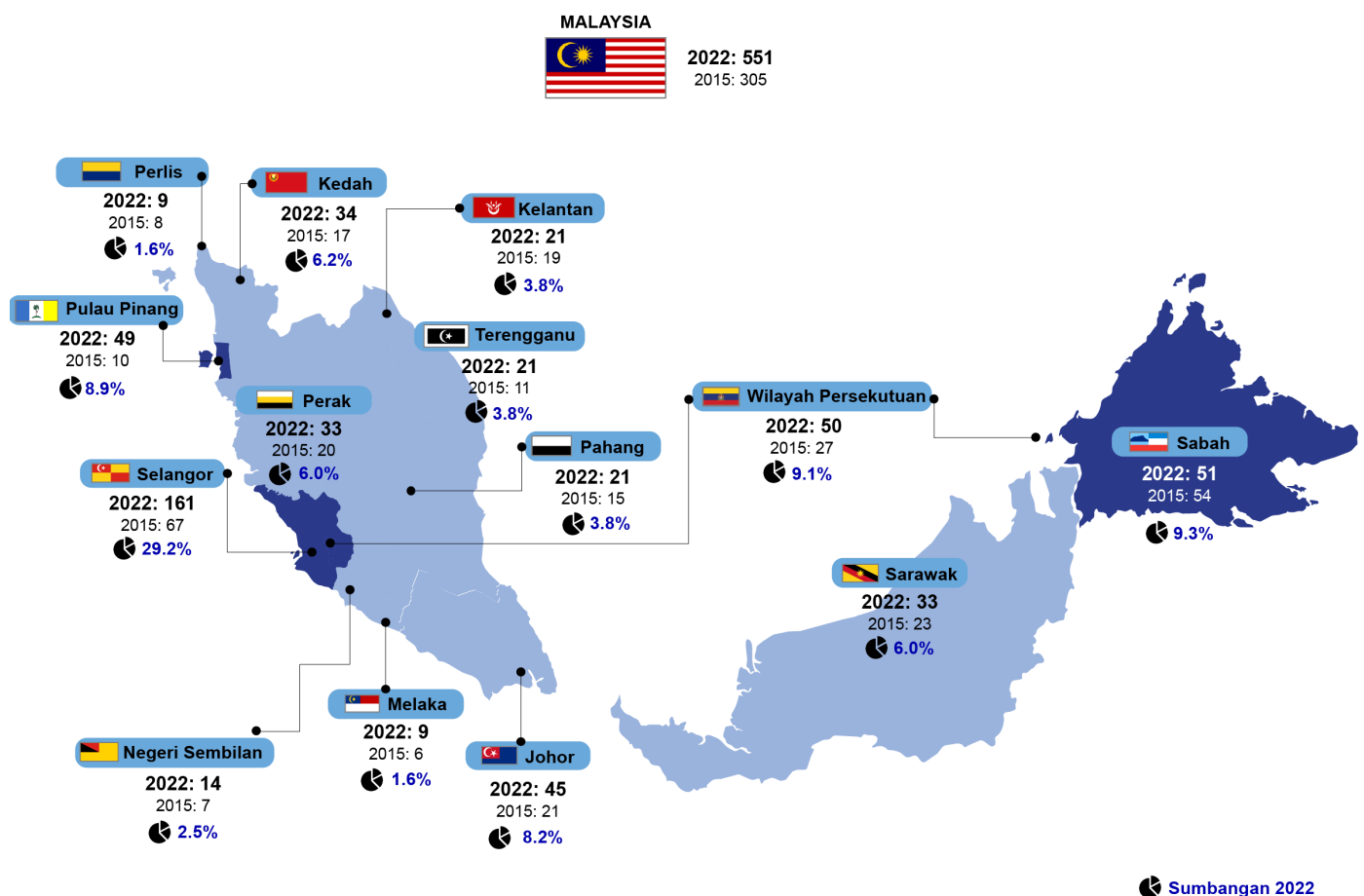
**Paparan 2: Bilangan Pertubuhan mengikut Kumpulan, 2015 dan 2022**



### 3.2 Bilangan Pertubuhan mengikut Negeri

Selangor kekal sebagai negeri teratas dengan bilangan pertubuhan tertinggi dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara pada tahun 2022, menyumbang 29.2 peratus daripada jumlah keseluruhan dengan 161 pertubuhan. Sabah mengekalkan kedudukannya dengan 51 pertubuhan (sumbangan: 9.3%) diikuti oleh Wilayah Persekutuan dengan 50 pertubuhan (sumbangan: 9.1%) dan Pulau Pinang 49 pertubuhan (sumbangan: 8.9%). Negeri-negeri ini mewakili lebih separuh daripada jumlah keseluruhan pertubuhan dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara.

Paparan 3: Bilangan Pertubuhan mengikut Negeri, 2022



#### 4. Output Kasar

##### 4.1 Output Kasar mengikut Kumpulan

Output kasar subsektor Bekalan elektrik, gas, wap dan pendingin udara pada tahun 2022 mencatat pertumbuhan 7.6 peratus, dengan nilai RM90.6 bilion berbanding RM54.4 bilion pada tahun 2015. Peningkatan ini terutamanya disokong oleh kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik yang menyumbang 90.0 peratus daripada jumlah keseluruhan, dengan nilai RM81.5 bilion pada tahun 2022. Ini diikuti oleh kumpulan Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama dengan 8.0 peratus sumbangan dan nilai output kasar RM7.3 bilion pada tahun 2022. Sementara itu, kumpulan Bekalan wap dan pendingin udara yang menyumbang 2.0 peratus dengan nilai RM1.8 bilion.

**Paparan 4: Nilai Output Kasar mengikut Kumpulan, 2015 dan 2022**

|                                                                                                                                                                   | Output Kasar (RM bilion) |      | Sumbangan (%) |      | CAGR (%)  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------|---------------|------|-----------|
|                                                                                                                                                                   | 2015                     | 2022 | 2015          | 2022 | 2022/2015 |
|  <b>Bekalan elektrik, gas, wap dan pendingin udara</b>                           | 54.4                     | 90.6 | 100           | 100  | 7.6       |
|  <b>Penjanaan, penghantaran dan pengagihan tenaga elektrik</b>                  | 50.5                     | 81.5 | 92.8          | 90.0 | 7.1       |
|  <b>Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama</b> | 2.8                      | 7.3  | 5.2           | 8.0  | 14.4      |
|  <b>Bekalan wap dan pendingin udara</b>                                        | 1.1                      | 1.8  | 2.0           | 2.0  | 7.4       |

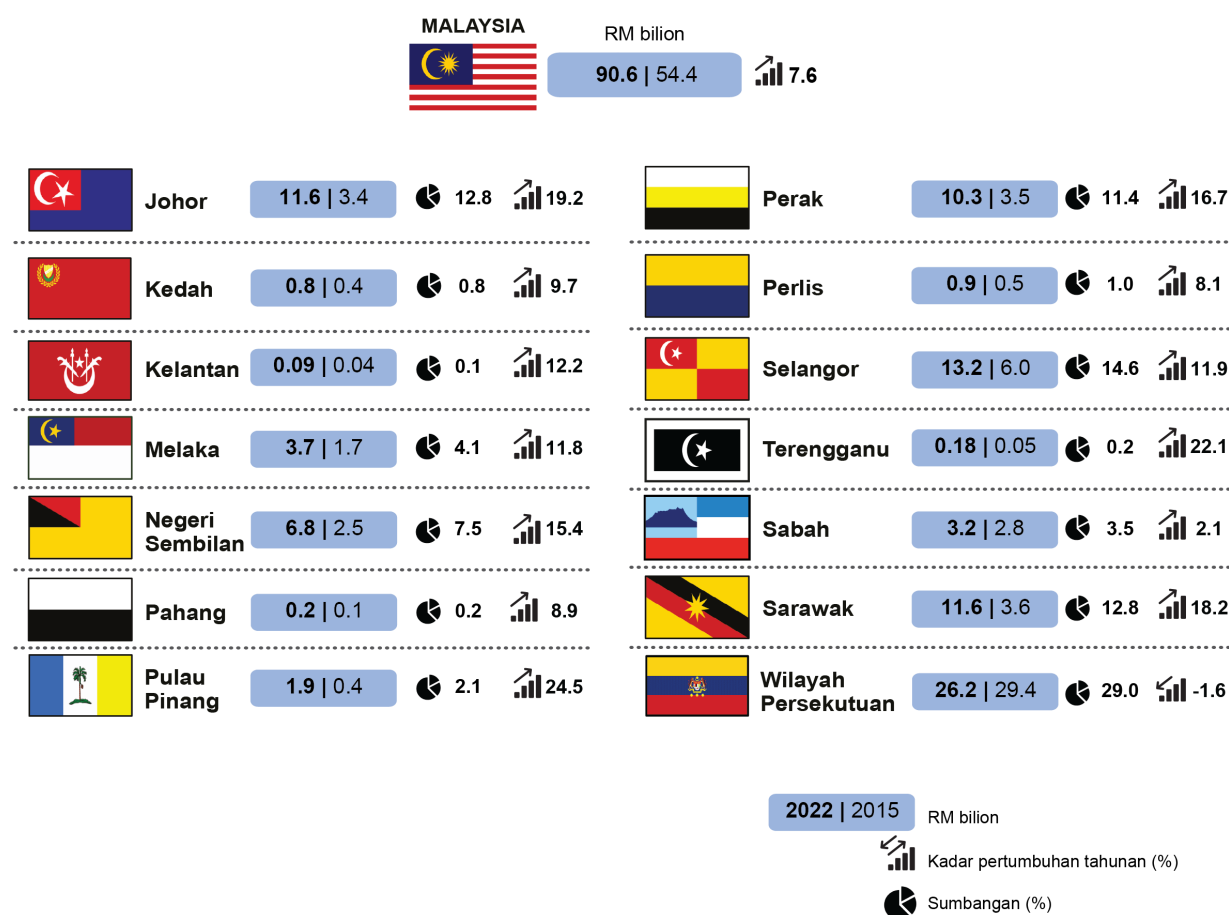


## 4.2 Output Kasar mengikut Negeri

Wilayah Persekutuan mendominasi subsektor Bekalan elektrik, gas, wap dan pendingin udara dengan nilai output kasar RM26.2 bilion (sumbangan: 29.0%) diikuti Selangor menyumbang 14.6 peratus dengan output kasar sebanyak RM13.2 bilion. Seterusnya, Johor dan Sarawak masing-masing menyumbang RM11.6 bilion (sumbangan: 12.8%). Secara kolektifnya, negeri-negeri ini menyumbang 69.2 peratus daripada jumlah keseluruhan, dengan nilai RM62.6 bilion.

Selain itu, purata pertumbuhan tahunan yang positif bagi tempoh tahun 2015 ke 2022 turut dilihat di Pulau Pinang, 24.5 peratus, Terengganu, 22.1 peratus dan Johor dengan peningkatan 19.2 peratus. Sebaliknya, Wilayah Persekutuan mengalami penurunan 1.6 peratus dengan jumlah keseluruhan sebanyak RM26.2 bilion berbanding RM29.4 bilion pada tahun 2015 (**Paparan 5**).

Paparan 5: Nilai Output Kasar mengikut Negeri, 2015 dan 2022



## 5 Input Perantaraan

### 5.1 Input Perantaraan mengikut Kumpulan

Input perantaraan bagi subsektor Bekalan elektrik, gas, wap dan pendingin udara meningkat 11.7 peratus setahun (2015: 2.4%) kepada RM60.1 bilion berbanding RM27.7 bilion pada 2015. Peningkatan tertinggi ini dicatatkan oleh kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik dengan kadar pertumbuhan tahunan 11.1 peratus (RM54.0 bilion); diikuti dengan kumpulan Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama (RM5.0 bilion; 21.8%) dan kumpulan Bekalan wap dan pendingin udara (RM1.2 bilion; 9.8%).

**Paparan 6: Input Perantaraan mengikut Kumpulan, 2015 dan 2022**

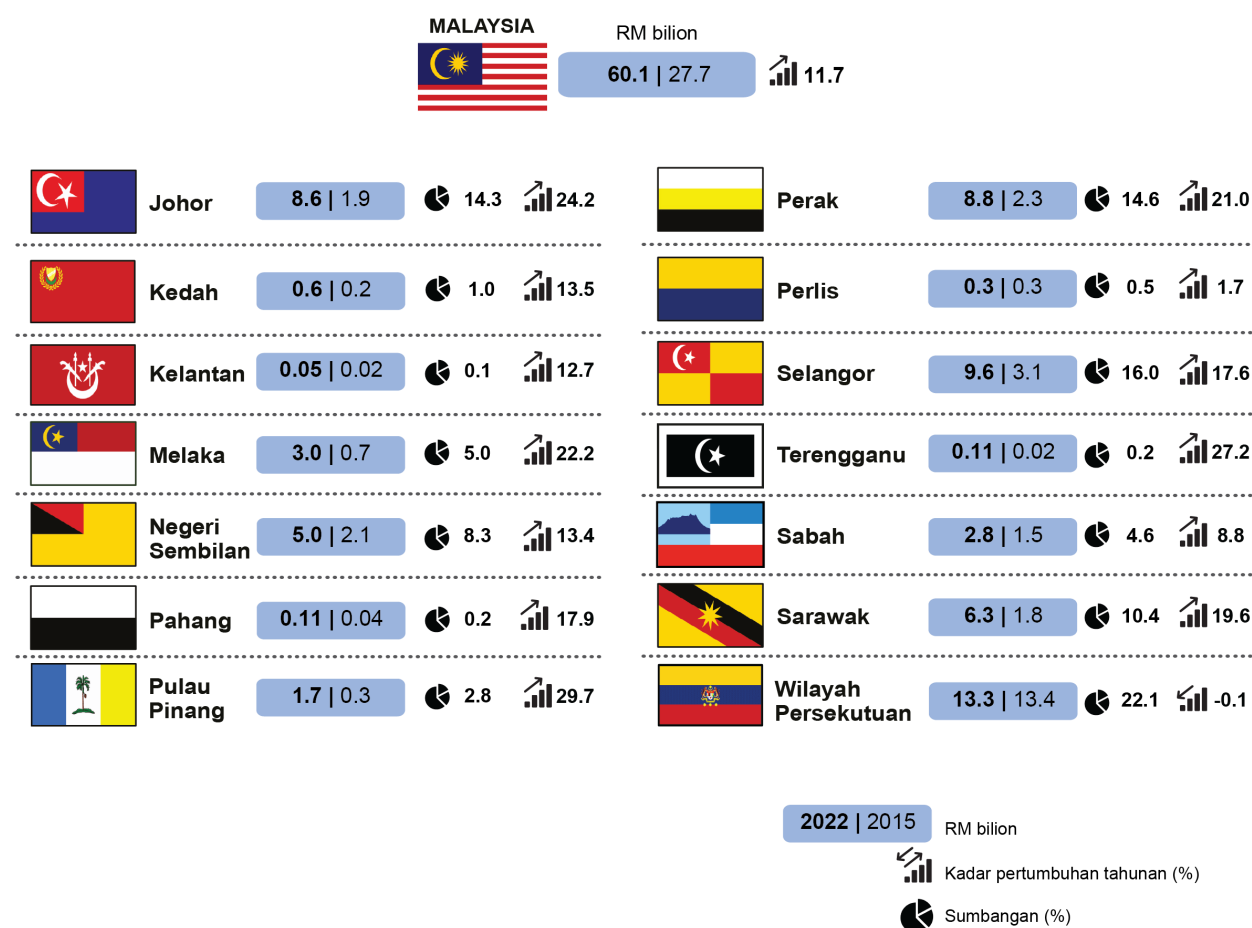
|                                                                                                                                                            | Input Perantaraan (RM bilion) |      | Sumbangan (%) |      | CAGR (%)  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|------|---------------|------|-----------|
|                                                                                                                                                            | 2015                          | 2022 | 2015          | 2022 | 2022/2015 |
|  Bekalan elektrik, gas, wap dan pendingin udara                           | 27.7                          | 60.1 | 100           | 100  | 11.7      |
|  Penjanaan, penghantaran dan pengagihan tenaga elektrik                  | 25.8                          | 54.0 | 93.3          | 89.8 | 11.1      |
|  Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama | 1.3                           | 5.0  | 4.5           | 8.3  | 21.8      |
|  Bekalan wap dan pendingin udara                                        | 0.6                           | 1.2  | 2.2           | 1.9  | 9.8       |

## 5.2 Input Perantaraan mengikut Negeri

Wilayah Persekutuan memegang sumbangan terbesar dalam input perantaraan, yang mewakili 22.1 peratus berjumlah RM13.3 bilion. Diikuti oleh Selangor, dengan sumbangan 16.0 peratus, bernilai RM9.6 bilion dan Perak dengan sumbangan 14.6 peratus, mencatatkan RM8.8 bilion pada tahun 2022. Negeri-negeri ini menyumbang 52.7 peratus daripada jumlah input perantaraan dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara.

Pulau Pinang mencatatkan kadar pertumbuhan tahunan tertinggi dengan 29.7 peratus, mencapai RM1.7 bilion pada tahun 2022 berbanding RM0.3 bilion pada tahun 2015. Terengganu turut merekodkan pertumbuhan dua digit 27.2 peratus kepada RM0.11 bilion (2015: RM0.02 bilion) seperti di **Paparan 7**. Sebaliknya, Wilayah Persekutuan menunjukkan penurunan 0.1 peratus kepada RM13.3 bilion (2015: RM 13.4 bilion).

**Paparan 7: Input Perantaraan mengikut Negeri, 2015 dan 2022**



## 6. Nilai Ditambah

### 6.1 Nilai Ditambah mengikut Kumpulan

Nilai ditambah keseluruhan meningkat 1.9 peratus kepada RM30.5 bilion pada tahun 2022 (2015: RM26.7 bilion). Kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik merangkumi sumbangan terbesar 90.3 peratus atau RM27.5 bilion, dengan pertumbuhan tahunan 1.6 peratus (2015: RM24.6 bilion, 22.9%). Sementara itu, kumpulan Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama berada di kedudukan kedua, menyumbang 7.6 peratus (RM2.3 bilion) dan berkembang 5.5 peratus setahun. Kumpulan Bekalan wap dan pendingin udara merekodkan pertumbuhan 3.8 peratus kepada RM0.6 bilion (sumbangan: 2.1%).

**Paparan 8: Nilai Ditambah mengikut Kumpulan, 2015 dan 2022**

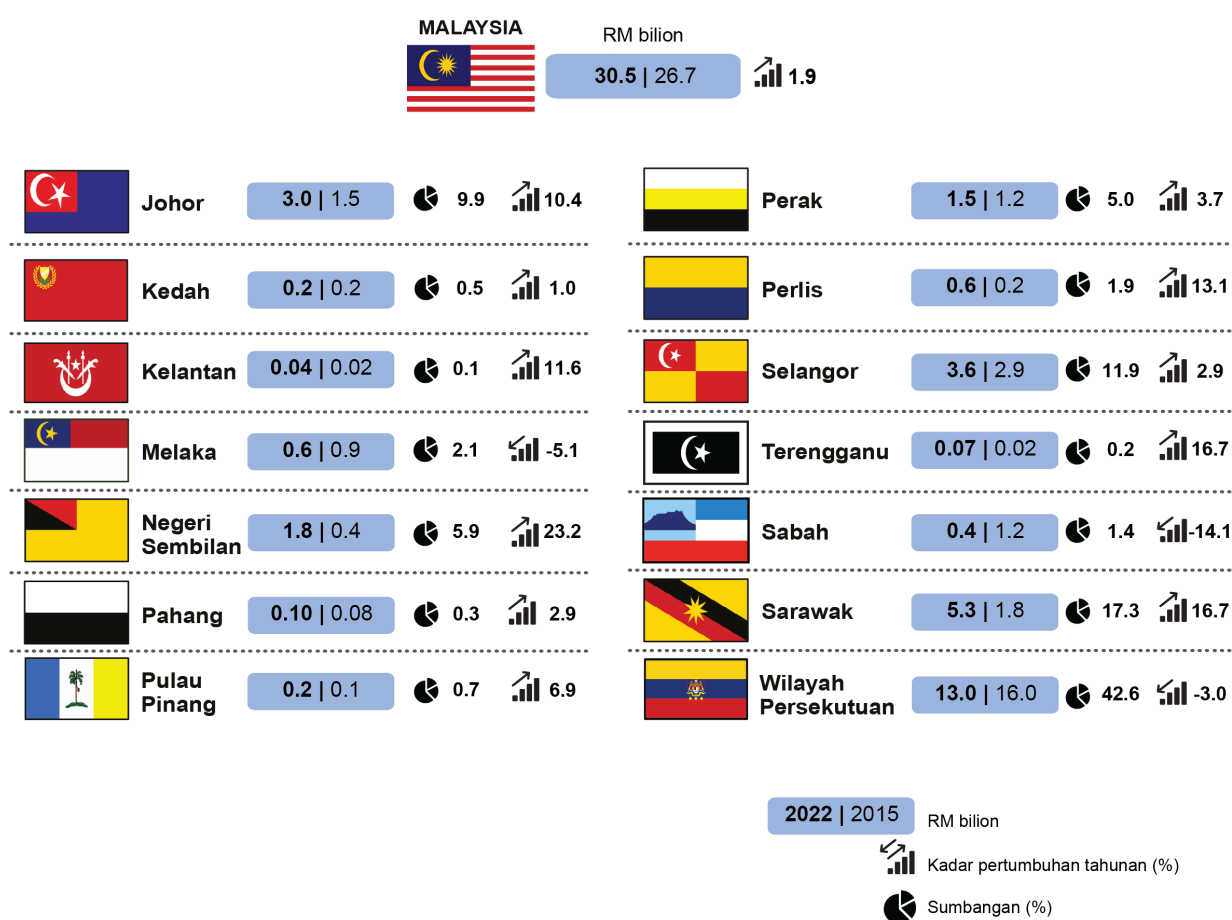
|                                                                                                                                                            | Nilai Ditambah (RM bilion) |      | Sumbangan (%) |      | CAGR (%)  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------|---------------|------|-----------|
|                                                                                                                                                            | 2015                       | 2022 | 2015          | 2022 | 2022/2015 |
|  Bekalan elektrik, gas, wap dan pendingin udara                           | 26.7                       | 30.5 | 100           | 100  | 1.9       |
|  Penjanaan, penghantaran dan pengagihan tenaga elektrik                  | 24.6                       | 27.5 | 92.2          | 90.3 | 1.6       |
|  Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama | 1.6                        | 2.3  | 5.9           | 7.6  | 5.5       |
|  Bekalan wap dan pendingin udara                                        | 0.5                        | 0.6  | 1.8           | 2.1  | 3.8       |

## 6.2 Nilai Ditambah mengikut Negeri

Selaras dengan prestasi output kasar, Wilayah Persekutuan menyumbang nilai ditambah tertinggi RM13.0 bilion, yang mewakili 42.6 peratus pada tahun 2022, diikuti oleh Sarawak dengan RM5.3 bilion (sumbangan: 17.3%) dan Selangor dengan RM3.6 bilion (sumbangan: 11.9%). Negeri-negeri ini menyumbang 71.8 peratus kepada subsektor Bekalan elektrik, gas, wap dan pendingin udara berjumlah RM21.9 bilion.

Negeri Sembilan menunjukkan pertumbuhan tahunan dua digit bagi tempoh 2015 ke 2022 sebanyak 23.2 peratus, meningkat kepada RM1.8 bilion berbanding RM0.4 bilion. Manakala Sarawak dan Terengganu masing-masing menunjukkan pertumbuhan tahunan meningkat 16.7 peratus.

Paparan 9: Nilai Ditambah mengikut Negeri, 2015 dan 2022



## 7. Pekerja dan Gaji & Upah

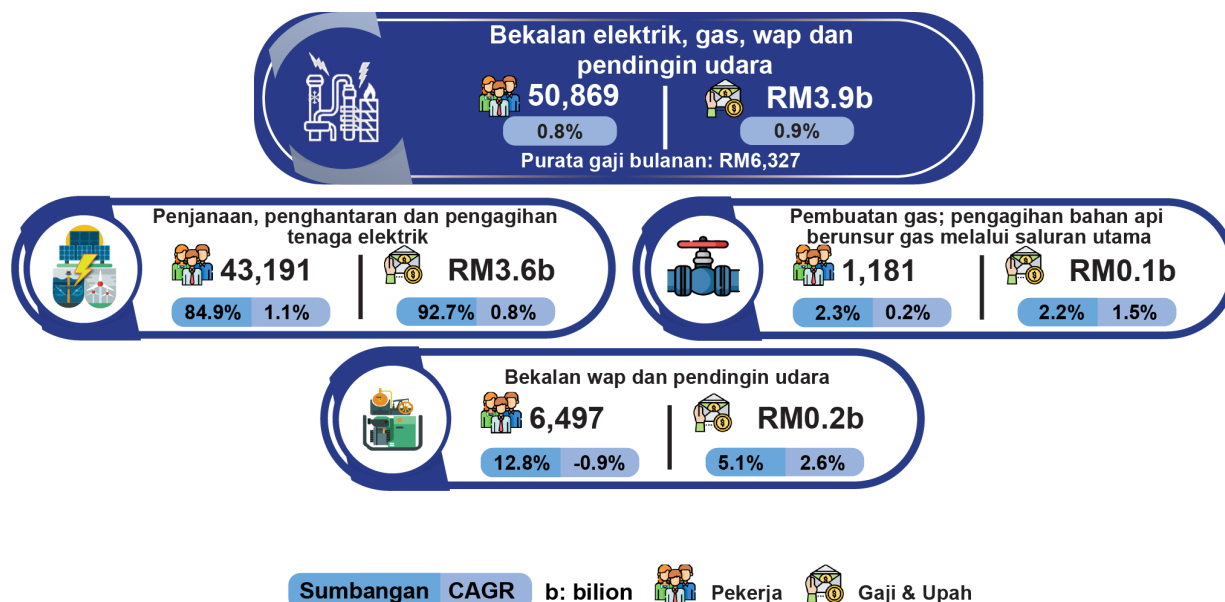
### 7.1 Pekerja dan Gaji & Upah mengikut Kumpulan

Bilangan pekerja bagi subsektor ini meningkat 0.8 peratus kepada 50,869 orang pada tahun 2022 (2015: 47,972 orang). Lebih separuh daripada jumlah pekerja tertumpu kepada kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik dengan sumbangan 84.9 peratus atau seramai 43,191 orang manakala kumpulan Bekalan wap dan pendingin udara menurun 0.9 peratus kepada 6,497 orang pada tahun 2022 (2015: 6,928 orang). Sementara itu, bilangan pekerja bagi kumpulan Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama meningkat 0.2 peratus dengan jumlah 1,181 orang pada tahun 2022 (2015: 1,164 orang). Subsektor ini didominasi oleh pekerja lelaki seramai 41,230 orang dengan peratus sumbangan 81.1 peratus berbanding pekerja wanita iaitu 9,639 orang (sumbangan: 18.9%).

Selari dengan peningkatan bilangan pekerja, jumlah gaji & upah untuk subsektor Bekalan elektrik, gas, wap dan pendingin udara juga meningkat 0.9 peratus dengan jumlah RM3.9 bilion pada tahun 2022 (2015: RM3.6 bilion). Jumlah gaji & upah yang lebih tinggi pada tahun 2022 ini dipacu oleh kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik yang mana meningkat 0.8 peratus dengan jumlah RM3.6 bilion (sumbangan: 92.7%).

Purata gaji & upah yang dibayar dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara adalah RM6,327 sebulan pada tahun 2022.

**Paparan 10: Pekerja dan Gaji & Upah mengikut Kumpulan, 2022**



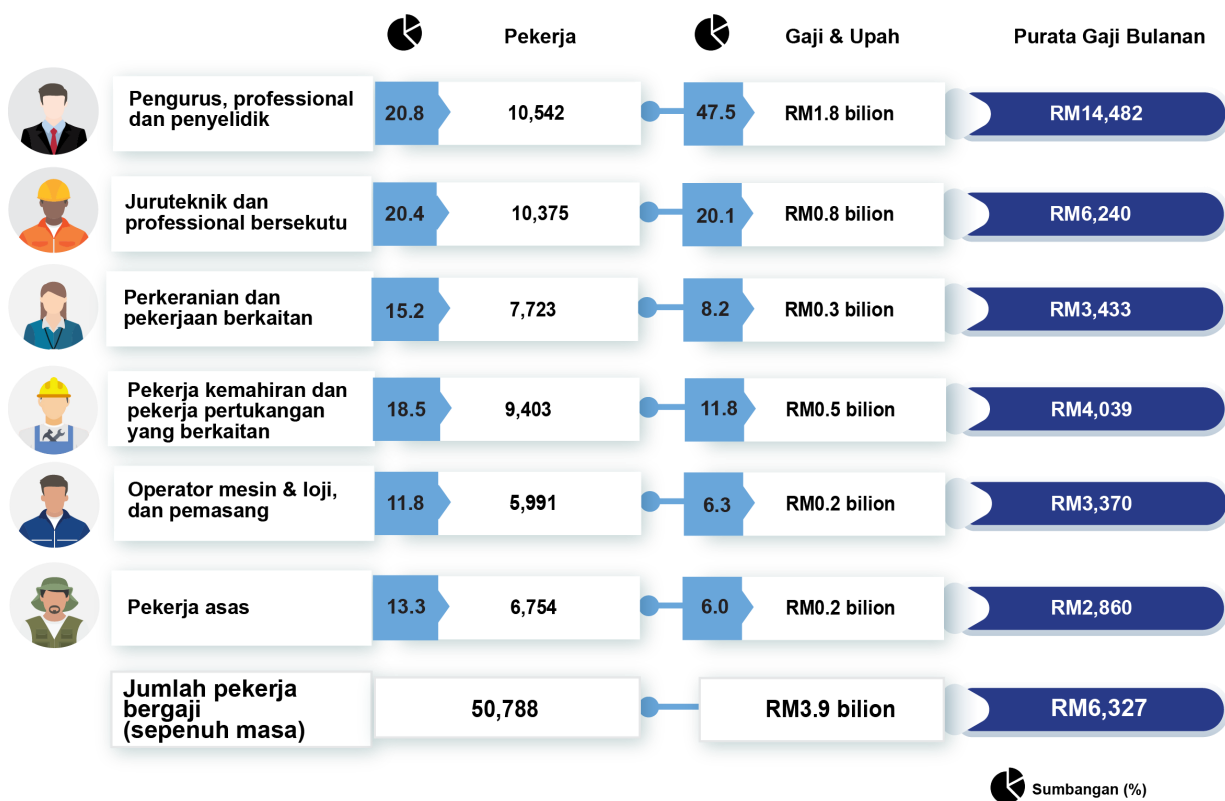


## 7.2 Pekerja Bergaji Sepenuh Masa mengikut Kategori Pekerja

Secara keseluruhannya, subsektor Bekalan elektrik, gas, wap dan pendingin udara didominasi oleh pekerja bergaji sepenuh masa seramai 50,788 orang. Pengurus, profesional dan penyelidik mendominasi pasaran tenaga kerja dengan sumbangan 20.8 peratus dengan jumlah 10,542 orang. Kategori Juruteknik dan profesional bersekutu mewakili 20.4 peratus dengan jumlah 10,375 orang manakala Pekerja kemahiran dan pekerja pertukangan yang berkaitan merangkumi 18.5 peratus (9,403 orang). Ketiga-tiga kategori ini mewakili 59.7 peratus dengan jumlah 30,320 orang. Kategori Pengurus, profesional dan penyelidik merekodkan gaji tertinggi dengan nilai RM1.8 bilion (sumbangan: 47.5%).

Purata gaji bulanan tertinggi diterima oleh kategori Pengurus, profesional dan penyelidik dengan nilai RM14,482 sebulan. Seterusnya, diikuti oleh kategori Juruteknik dan profesional bersekutu dengan nilai RM6,240 sebulan serta pekerja Kemahiran dan pekerja pertukangan yang berkaitan (RM4,039 sebulan).

**Paparan 11: Pekerja Bergaji Sepenuh Masa mengikut Kategori Pekerja, 2022**

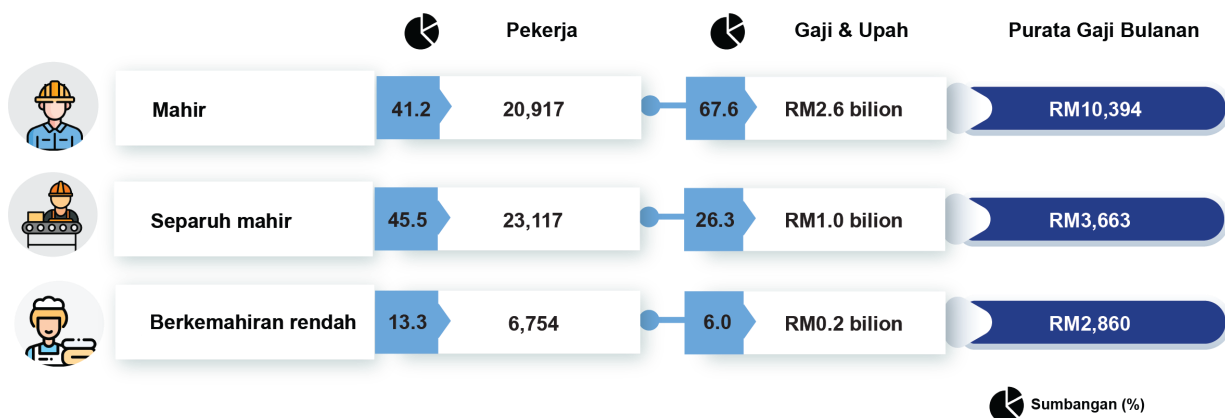


### 7.3 Pekerja Bergaji Sepenuh Masa mengikut Kemahiran Pekerja

Bagi bilangan pekerja mengikut tahap kemahiran, pekerja separuh mahir merekodkan bilangan pekerja tertinggi dengan jumlah 23,117 orang (sumbangan: 45.5%) diikuti dengan pekerja mahir seramai 20,917 orang (sumbangan: 41.2%) dan pekerja berkemahiran rendah dengan jumlah 6,754 orang (sumbangan: 13.3%) pada tahun 2022. Gaji & upah pekerja mahir mencatatkan lebih dari dua pertiga daripada jumlah sumbangan dengan nilai RM2.6 bilion (sumbangan: 67.6%). Sementara itu, kategori pekerja separuh mahir dan berkemahiran rendah menerima bayaran RM1.2 bilion pada tahun 2022.

Pekerja mahir menerima purata gaji & upah bulanan tertinggi RM10,394. Pekerja separuh mahir mendapat purata RM3,663 sebulan, manakala pekerja berkemahiran rendah menerima RM2,860 sebulan, seperti yang digambarkan dalam **Paparan 12**.

**Paparan 12: Pekerja Bergaji Sepenuh Masa mengikut Kemahiran Pekerja, 2022**

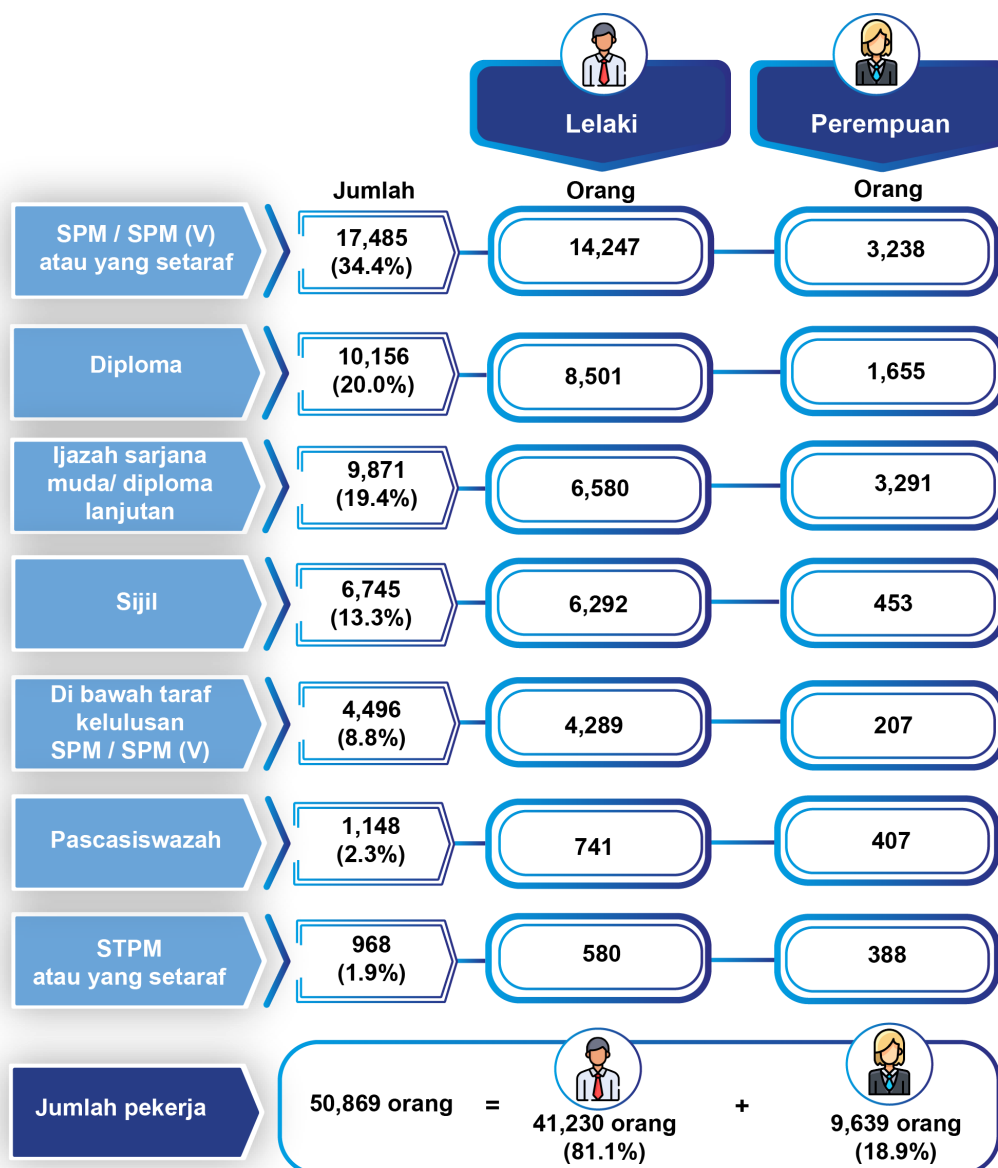


## 7.4 Pekerja mengikut Sijil Tertinggi Diperoleh

Pekerja yang memiliki kelayakan SPM/SPM (V) atau yang setaraf menyumbang 34.4 peratus, berjumlah seramai 17,485 orang dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara pada tahun 2022. Ini diikuti oleh pekerja yang mempunyai kelayakan Diploma yang mencatatkan 10,156 orang (sumbangan: 20.0%), dan pemegang Ijazah sarjana muda/diploma lanjutan dengan 9,871 orang (sumbangan: 19.4%).

Sebahagian besar tenaga kerja subsektor Bekalan elektrik, gas, wap dan pendingin udara adalah lelaki, dengan jumlah 41,230 (sumbangan: 81.1%), manakala pekerja perempuan menyumbang 18.9 peratus, dengan jumlah 9,639 orang. Pekerja yang mempunyai kelayakan SPM/SPM (V) atau yang setaraf mencatatkan jumlah tertinggi dalam kalangan pekerja lelaki dengan 14,247 orang (sumbangan: 34.6%).

**Paparan 13: Pekerja mengikut Sijil Tertinggi Diperoleh, 2022**



%%: Sumbangan

## 8. Harta Tetap

### 8.1 Harta Tetap mengikut Kumpulan

Harta tetap bagi subsektor ini pada tahun 2022 merekodkan RM210.4 bilion dengan kadar pertumbuhan tahunan 6.9 peratus. Harta tetap bagi kumpulan Penjanaan, penghantaran dan pengagihan tenaga elektrik menunjukkan peningkatan kadar pertumbuhan tahunan kepada 7.3 peratus dengan nilai RM206.7 bilion pada tahun 2022 (2015: RM126.3 bilion). Seterusnya, kumpulan Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama mengalami penurunan bagi harta tetap pada 2022 berjumlah RM2.4 bilion (sumbangan: 1.1%) berbanding RM4.1 bilion pada 2015, dengan penurunan kadar pertumbuhan tahunan 7.7 peratus. Kumpulan Bekalan wap dan pendingin udara juga mencatatkan penurunan kadar pertumbuhan tahunan 2.3 peratus dengan nilai RM1.4 bilion pada tahun 2022 (2015: RM1.7 bilion).

**Paparan 14: Harta Tetap mengikut Kumpulan, 2015 dan 2022**

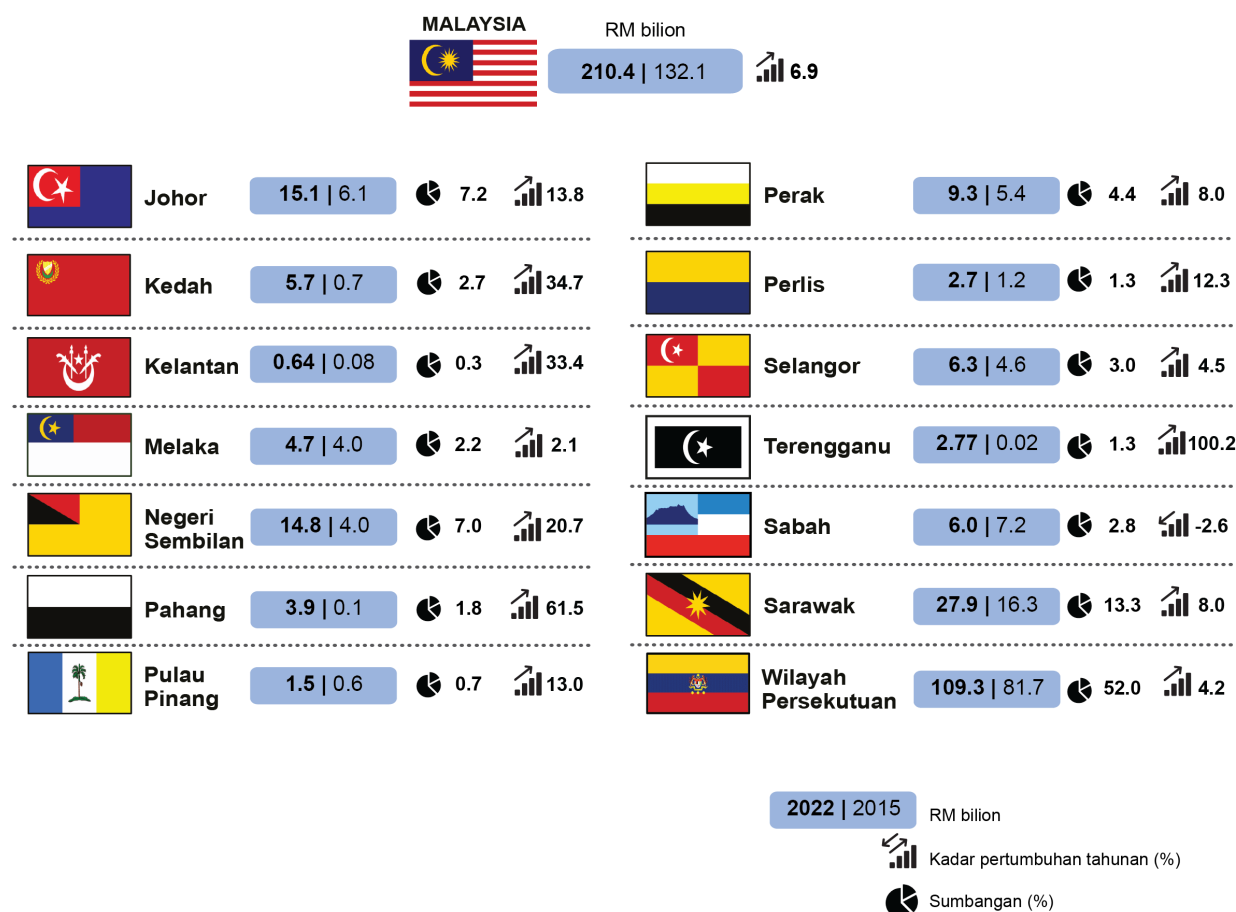
|                                                                                                                                                            | Harta Tetap (RM bilion) |       | Sumbangan (%) |      | CAGR (%)  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------|-------|---------------|------|-----------|
|                                                                                                                                                            | 2015                    | 2022  | 2015          | 2022 | 2022/2015 |
|  Bekalan elektrik, gas, wap dan pendingin udara                          | 132.1                   | 210.4 | 100           | 100  | 6.9       |
|  Penjanaan, penghantaran dan pengagihan tenaga elektrik                 | 126.3                   | 206.7 | 95.6          | 98.2 | 7.3       |
|  Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama | 4.1                     | 2.4   | 3.1           | 1.1  | -7.7      |
|  Bekalan wap dan pendingin udara                                        | 1.7                     | 1.4   | 1.3           | 0.7  | -2.3      |

## 8.2 Nilai Harta Tetap mengikut Negeri

Wilayah Persekutuan menyumbang harta tetap tertinggi RM109.3 bilion, yang mewakili 52.0 peratus pada tahun 2022, diikuti oleh Sarawak dengan RM27.9 bilion (sumbangan: 13.3%) dan Johor dengan RM15.1 bilion (sumbangan: 7.2%). Negeri-negeri ini menyumbang 72.5 peratus kepada subsektor Bekalan elektrik, gas, wap dan pendingin udara berjumlah RM152.3 bilion.

Terengganu merekodkan nilai harta tetap tertinggi berjumlah RM2.77 bilion pada tahun 2022 berbanding RM0.02 bilion pada tahun 2015. Pahang juga menunjukkan peningkatan yang ketara iaitu 61.5 peratus dari RM0.1 bilion pada tahun 2015 kepada RM3.9 bilion pada tahun 2022. Sabah, sebaliknya menunjukkan penurunan kadar pertumbuhan tahunan 2.6 peratus kepada RM6.0 bilion (2015: RM7.2 bilion).

### Paparan 15: Harta Tetap mengikut Negeri, 2022



## 9. Pertubuhan Milikan Wanita

Bilangan pertubuhan milikan wanita dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara secara keseluruhannya merekodkan 18 pertubuhan dengan sumbangan 3.3 peratus pada tahun 2022. Pertubuhan ini menyumbang RM86.3 juta nilai output kasar dengan nilai ditambah berjumlah RM40.5 juta. Sementara itu, terdapat 347 orang pekerja di pertubuhan ini seperti di **Paparan 16**.

**Paparan 16: Pertubuhan Milikan Wanita Subsektor Bekalan Elektrik, Gas, Wap dan Pendingin Udara, 2022**

| Bekalan elektrik, gas, wap dan pendingin udara                                      |                     | Nilai Pertubuhan Milikan Wanita | Nilai Subsektor | Peratus Sumbangan |
|-------------------------------------------------------------------------------------|---------------------|---------------------------------|-----------------|-------------------|
|    | Bilangan Pertubuhan | 18                              | 551             | 3.3%              |
|    | Output Kasar        | RM86.3 juta                     | RM90.6 bilion   | 0.1%              |
|  | Input Perantaraan   | RM45.8 juta                     | RM60.1 bilion   | 0.08%             |
|  | Nilai Ditambah      | RM40.5 juta                     | RM30.5 bilion   | 0.13%             |
|  | Pekerja             | 347                             | 50,869          | 0.7%              |
|  | Gaji & Upah         | RM10.5 juta                     | RM3.9 bilion    | 0.3%              |
|  | Harta Tetap         | RM255.0 juta                    | RM210.4 bilion  | 0.12%             |

## 1. Introduction

This report presents statistics on Electricity, gas, steam, and air conditioning supply sub-sector obtained from the Economic Census 2023 for the reference year 2022. The key statistics covers in this report are number of establishment, gross output, intermediate input, value added, persons engaged, salaries & wages as well as fixed assets. The coverage of Economic Census 2023 for Electricity, gas, steam, and air conditioning supply sub-sector was eight industries according to Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0. Electricity, gas, steam and air conditioning supply sub-sector comprises three group namely Electric power generation, transmission, and distribution, Manufacture of gas; distribution of gaseous fuels through mains and Steam and air conditioning supply.

## 2. Performance of Electricity, Gas, Steam and Air Conditioning Supply Sub-sector

The Electricity, gas, steam, and air conditioning supply sub-sector in Malaysia produced a gross output amounting to RM90.6 billion in 2022, surging by 7.6 per cent annually from RM54.4 billion in 2015. In line with the increase in gross output, the value of intermediate inputs also rose by 11.7 per cent annually to RM60.1 billion (2015: RM27.7 billion). This resulted in a value added of RM30.5 billion in 2022, an increase of 1.9 per cent from 2015. Additionally, there were 50,869 persons engaged in this sub-sector higher than the 47,972 persons recorded in 2015. The number of persons engaged in this sub-sector grew by 0.8 per cent annually. Correspondingly, salaries & wages increased to RM3.9 billion in 2022, up from RM3.6 billion in 2015 with an annual growth of 0.9 per cent. In the meantime, fixed assets increased 6.9 per cent to RM210.4 billion in year 2022 (2015: RM132.1 billion) as illustrated in **Exhibit 1**.

**Exhibit 1 : Principal Statistics of Electricity, Gas, Steam, and Air Conditioning Supply Sub-sector, 2015 and 2022**

|                                                                                                              | 2015            | 2022            | CAGR<br>2022 / 2015 |
|--------------------------------------------------------------------------------------------------------------|-----------------|-----------------|---------------------|
|  Number of Establishments | 305             | 551             | 8.8%                |
|  Gross Output             | RM54.4 billion  | RM90.6 billion  | 7.6%                |
|  Intermediate Input       | RM27.7 billion  | RM60.1 billion  | 11.7%               |
|  Value Added              | RM26.7 billion  | RM30.5 billion  | 1.9%                |
|  Persons Engaged          | 47,972          | 50,869          | 0.8%                |
|  Salaries & Wages         | RM3.6 billion   | RM3.9 billion   | 0.9%                |
|  Fixed Assets             | RM132.1 billion | RM210.4 billion | 6.9%                |

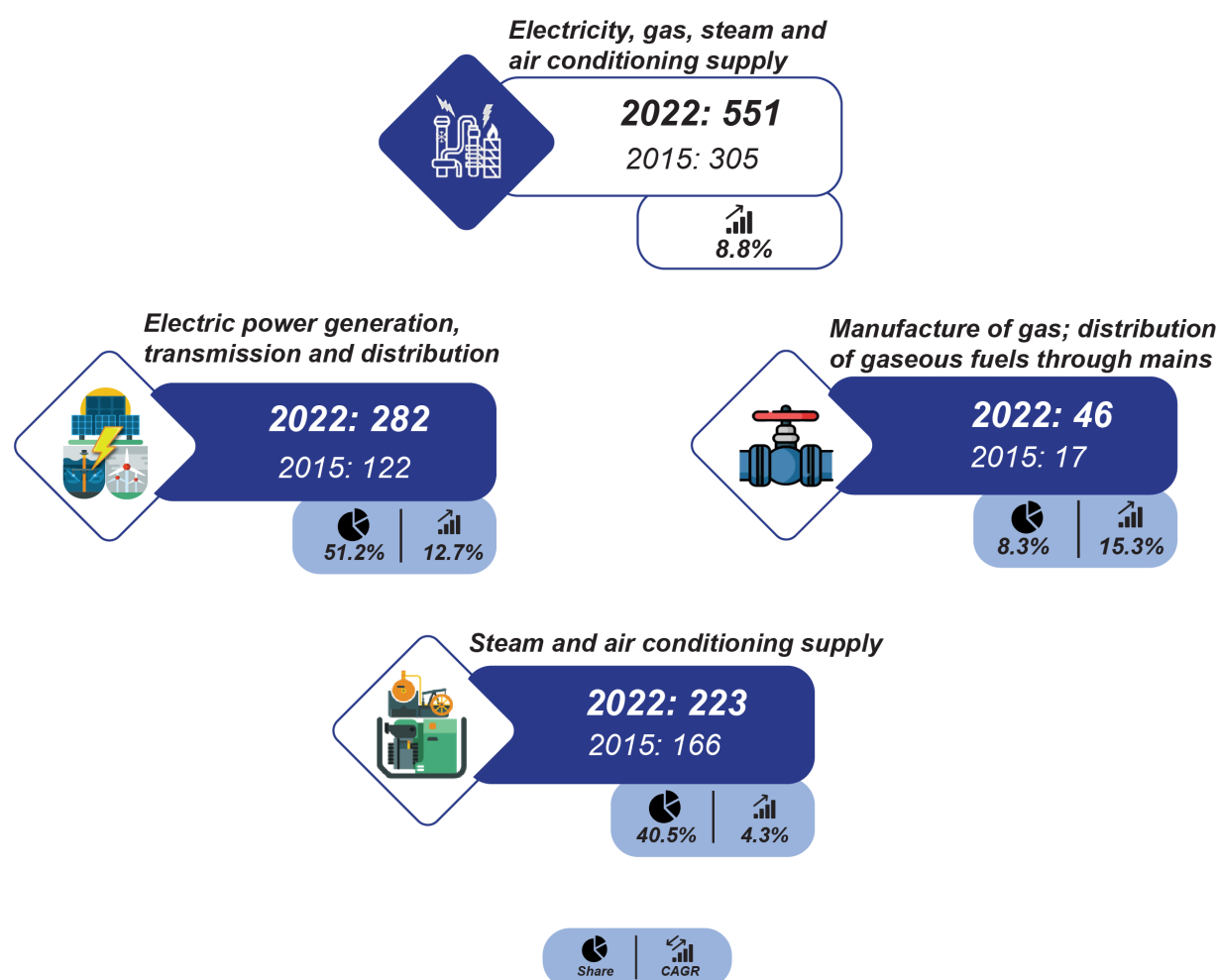


### 3. Number of Establishments

#### 3.1 Number of Establishments by Group

The Electricity, gas, steam, and air conditioning supply sub-sector showed a 8.8 per cent annual growth in the number of establishment reaching 551 establishments in 2022 (2015: 305 establishments). More than 50 per cent of the total establishment engaged in the sub-sector were in the Electric power generation, transmission, and distribution group (share: 51.2%), followed by the Steam and air conditioning supply group (share: 40.5%). Meanwhile, the Manufacture of gas; distribution of gaseous fuels through mains group with 8.3 per cent share as in **Exhibit 2**.

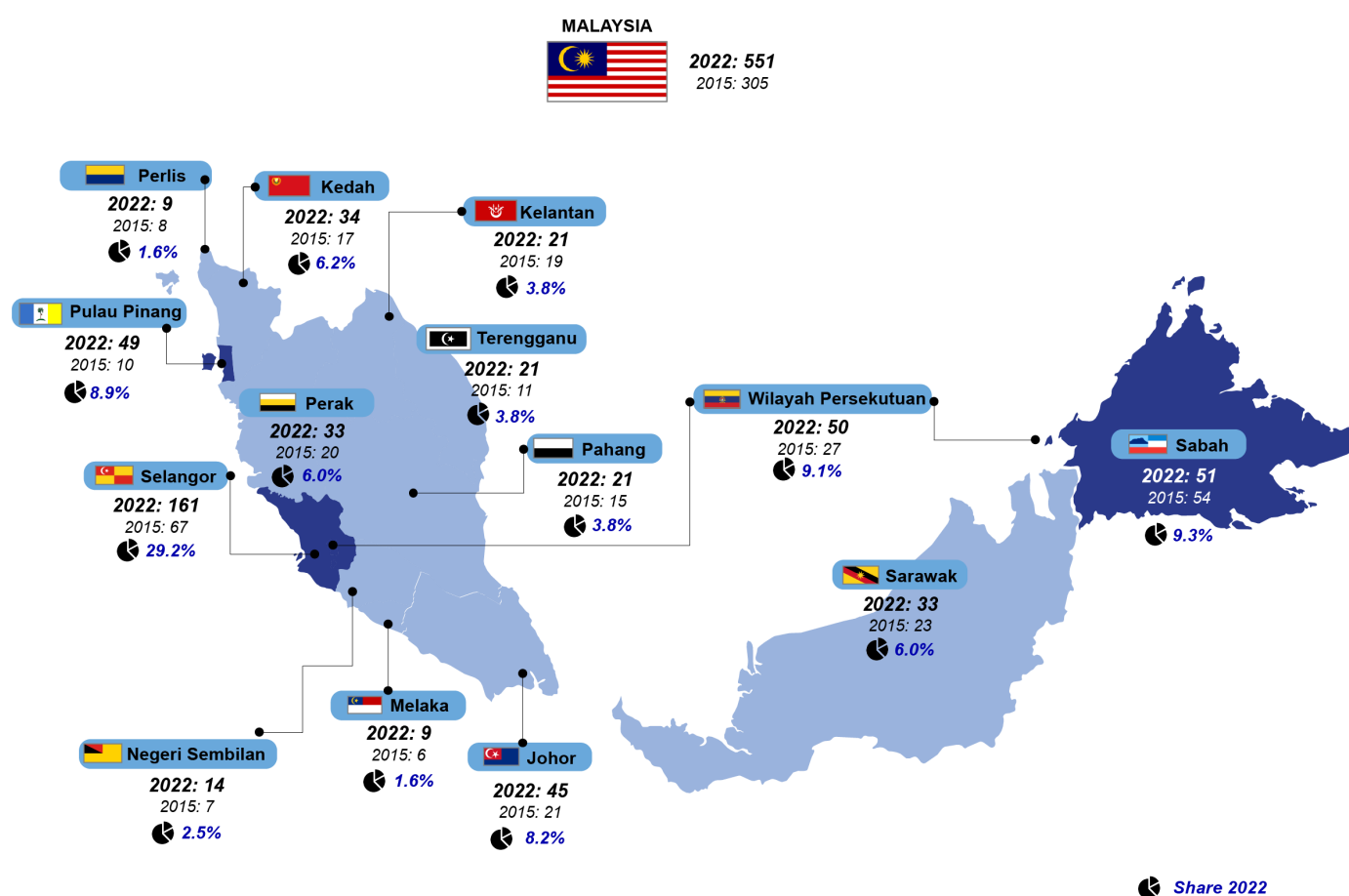
**Exhibit 2: Number of Establishment by Group, 2015 and 2022**



### 3.2 Number of Establishments by State

Selangor remained the top state for the highest number of establishments engaged in the Electricity, gas, steam, and air conditioning supply sub-sector in 2022, contributed 29.2 per cent of the total with 161 establishments. Sabah maintains its positions with 51 establishments (share: 9.3%) followed by Wilayah Persekutuan with 50 establishments (share: 9.1%) and Pulau Pinang with 49 establishment (share: 8.9%). These states combined represented over half of the total number of establishments in the Electricity, gas, steam and air conditioning supply sub-sector.

**Exhibit 3: Number of Establishments by State, 2022**



## 4. Gross Output

### 4.1 Gross Output by Group

The gross output of Electricity, gas, steam, and air conditioning supply sub-sector in 2022 recorded an annual growth of 7.6 per cent, valued at RM90.6 billion compared to RM54.4 billion in 2015. The increased was largely supported by the Electric power generation, transmission, and distribution group which contributed 90.0 per cent of the total, amounting to RM81.5 billion in 2022. It was followed by the Manufacture of gas; distribution of gaseous fuels through mains group with a 8.0 per cent share and gross output value of RM7.3 billion in 2022. Meanwhile, the Steam and air conditioning supply group contributed 2.0 per cent, amounting to RM1.8 billion.

**Exhibit 4: Value of Gross Output by Group, 2015 and 2022**

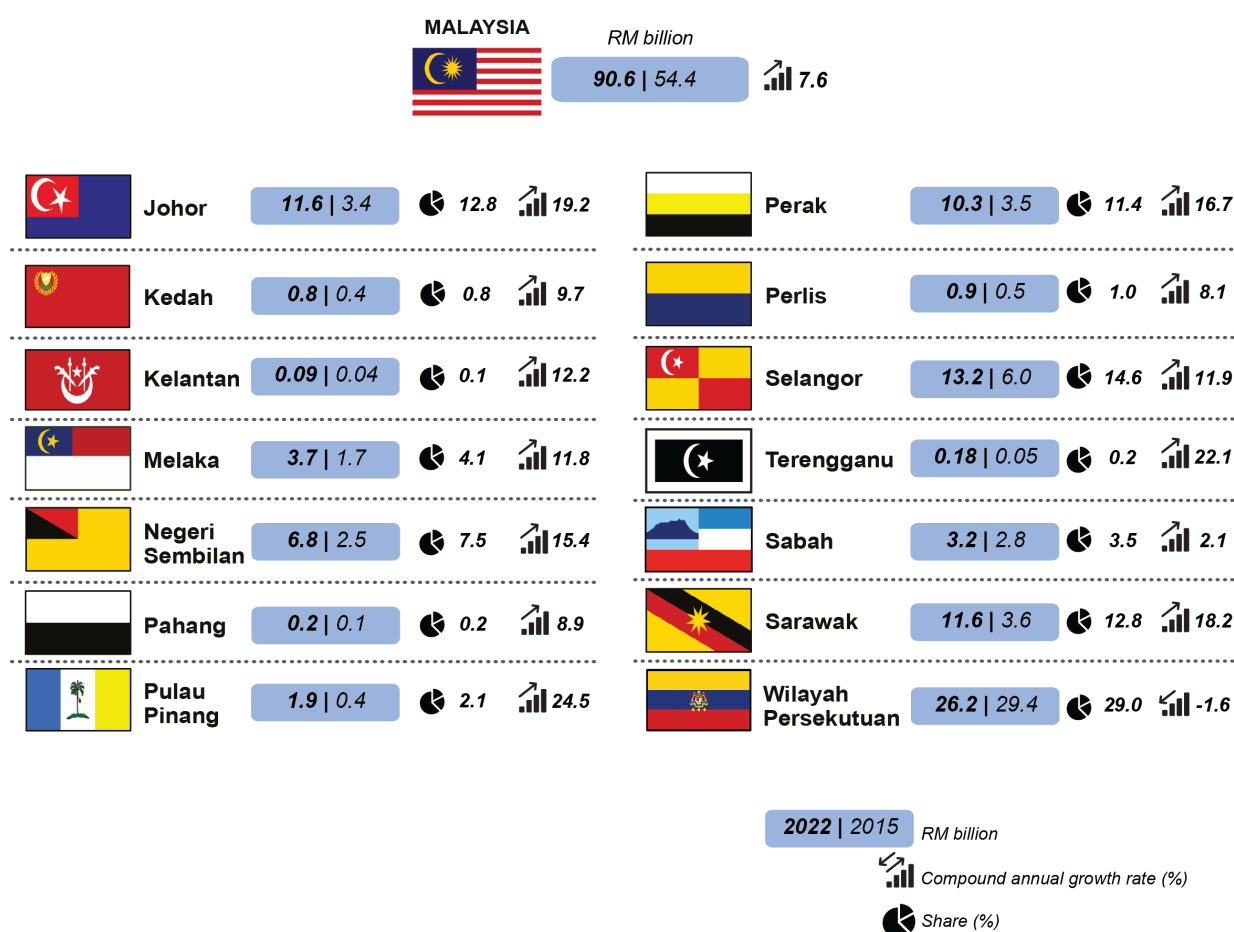
|                                                                                                                                                     | Gross Output (RM billion) |      | Share (%) |      | CAGR (%)  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|------|-----------|------|-----------|
|                                                                                                                                                     | 2015                      | 2022 | 2015      | 2022 | 2022/2015 |
|  Electricity, gas, steam and air conditioning                      | 54.4                      | 90.6 | 100       | 100  | 7.6       |
|  Electric power generation, transmission and distribution         | 50.5                      | 81.5 | 92.8      | 90.0 | 7.1       |
|  Manufacture of gas; distribution of gaseous fuels through mains | 2.8                       | 7.3  | 5.2       | 8.0  | 14.4      |
|  Steam and air conditioning supply                               | 1.1                       | 1.8  | 2.0       | 2.0  | 7.4       |

## 4.2 Gross Output by State

Wilayah Persekutuan dominated the Electricity, gas, steam, and air conditioning supply sub-sector with a gross output value totaling RM26.2 billion (share: 29.0%) followed by Selangor which contributed 14.6 per cent with a gross output of RM13.2 billion. Subsequently, Johor and Sarawak, both contributed RM11.6 billion (share: 12.8%). Collectively, these states contributed 69.2 per cent of the total, amounting to RM62.6 billion.

Moreover, a positive annual growth from 2015 to 2022 was also observed in Pulau Pinang, 24.5 per cent, Terengganu, 22.1 per cent and Johor with an increase of 19.2 per cent. Meanwhile, Wilayah Persekutuan experienced a decline of 1.6 per cent totaling to RM26.2 billion as compared to RM29.4 billion in 2015 (**Exhibit 5**).

**Exhibit 5: Value of Gross Output by State, 2015 and 2022**



## 5. Intermediate Input

### 5.1 Intermediate Input by Group

The intermediate input for the Electricity, gas, steam and air conditioning supply sub-sector rose by 11.7 per cent annually (2015: 2.4%) to RM60.1 billion as compared to RM27.7 billion in 2015. The highest increment was recorded by the Electricity power generation, transmission and distribution group with an annual growth rate of 11.1 per cent (RM54.0 billion); followed by the Manufacture of gas; distribution of gaseous fuels through mains group (RM5.0 billion; 21.8%) and the Steam and air conditioning supply group (RM1.2 billion; 9.8%).

**Exhibit 6: Intermediate Input by Group, 2015 and 2022**

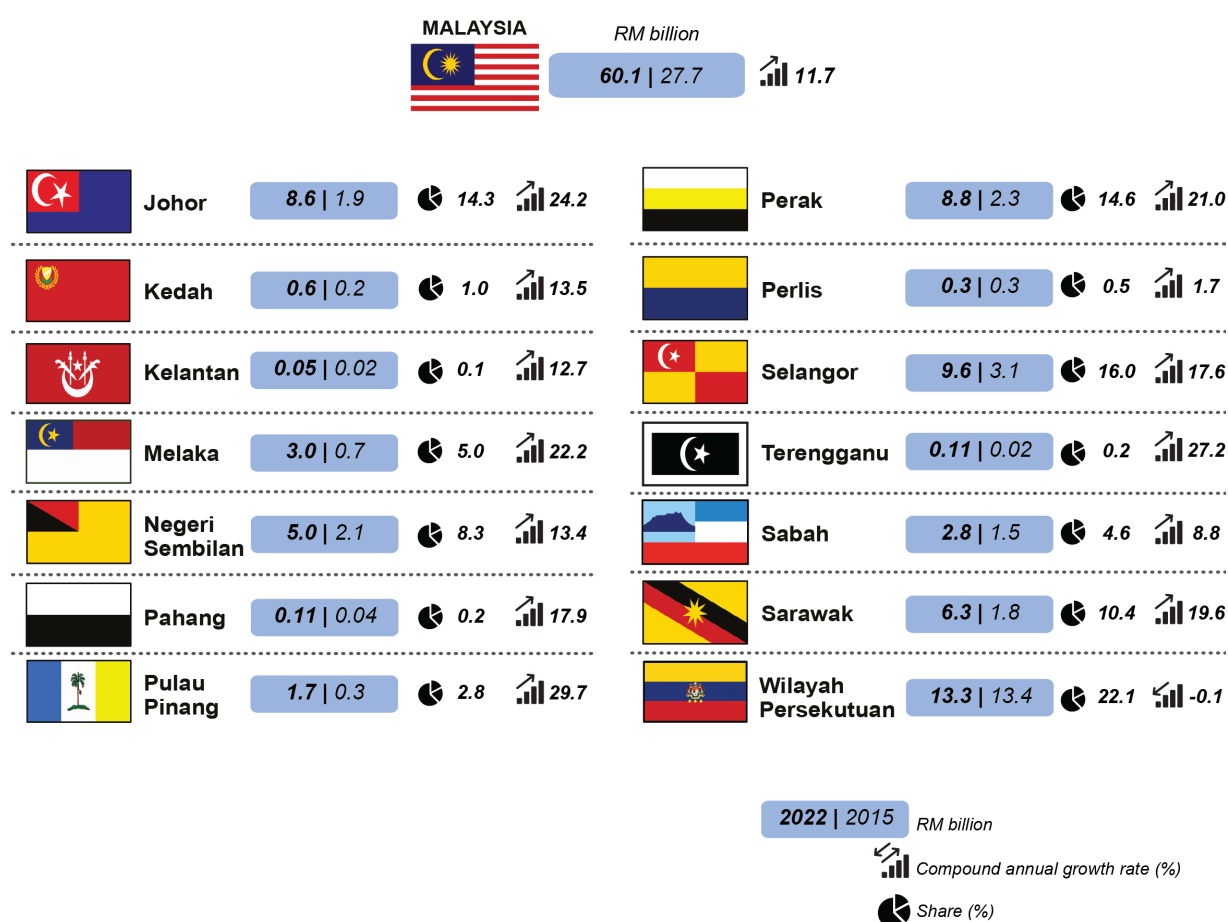
|                                                                                                                                                    | Intermediate Input (RM billion) |      | Share (%) |      | CAGR (%)  |
|----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------|-----------|------|-----------|
|                                                                                                                                                    | 2015                            | 2022 | 2015      | 2022 | 2022/2015 |
|  Electricity, gas, steam and air conditioning                     | 27.7                            | 60.1 | 100       | 100  | 11.7      |
|  Electric power generation, transmission and distribution         | 25.8                            | 54.0 | 93.3      | 89.8 | 11.1      |
|  Manufacture of gas; distribution of gaseous fuels through mains | 1.3                             | 5.0  | 4.5       | 8.3  | 21.8      |
|  Steam and air conditioning supply                              | 0.6                             | 1.2  | 2.2       | 1.9  | 9.8       |

## 5.2 Intermediate Input by State

Wilayah Persekutuan accounted for the largest share of intermediate input, comprising 22.1 per cent totaling RM13.3 billion. Following, Selangor with a 16.0 per cent, showing a 17.6 per cent increase to RM9.6 billion. Perak followed closely with a 14.6 per cent share, registering RM8.8 billion in 2022. Together, these states contributed 52.7 per cent of the total Electricity, gas, steam and air conditioning supply sub-sector intermediate input.

Pulau Pinang recorded the highest annual growth of 29.7 per cent, reaching RM1.7 billion in 2022 as compared to RM0.3 billion in 2015. Terengganu also experienced double digit growth of 27.2 per cent to RM0.11 billion (2015: RM0.02 billion) as depicted in **Exhibit 7**. Meanwhile, Wilayah Persekutuan showed a decrease of 0.1 per cent to RM13.3 billion (2015: RM13.4 billion).

**Exhibit 7: Intermediate Input by State, 2015 and 2022**



## 6. Value Added

### 6.1 Value Added by Group

The total value added increased by 1.9 per cent to RM30.5 billion in 2022 (2015: RM26.7 billion). The Electricity power generation, transmission and distribution group comprised the largest share of 90.3 per cent or RM27.5 billion, with an annual growth of 1.6 per cent (2015: RM24.6 billion, 22.9%). Meanwhile, the Manufacture of gas; distribution of gaseous fuels through mains group ranked second, contributing 7.6 per cent (RM2.3 billion) and growing by 5.5 per cent annually. The Steam and air conditioning supply group recorded an expansion of 3.8 per cent to RM0.6 billion (share: 2.1%).

**Exhibit 8: Value Added by Group, 2015 and 2022**

|                                                                                                                                                     | Value Added (RM billion) |      | Share (%) |      | CAGR (%)  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|------|-----------|------|-----------|
|                                                                                                                                                     | 2015                     | 2022 | 2015      | 2022 | 2022/2015 |
|  Electricity, gas, steam and air conditioning                      | 26.7                     | 30.5 | 100       | 100  | 1.9       |
|  Electric power generation, transmission and distribution         | 24.6                     | 27.5 | 92.2      | 90.3 | 1.6       |
|  Manufacture of gas; distribution of gaseous fuels through mains | 1.6                      | 2.3  | 5.9       | 7.6  | 5.5       |
|  Steam and air conditioning supply                               | 0.5                      | 0.6  | 1.8       | 2.1  | 3.8       |

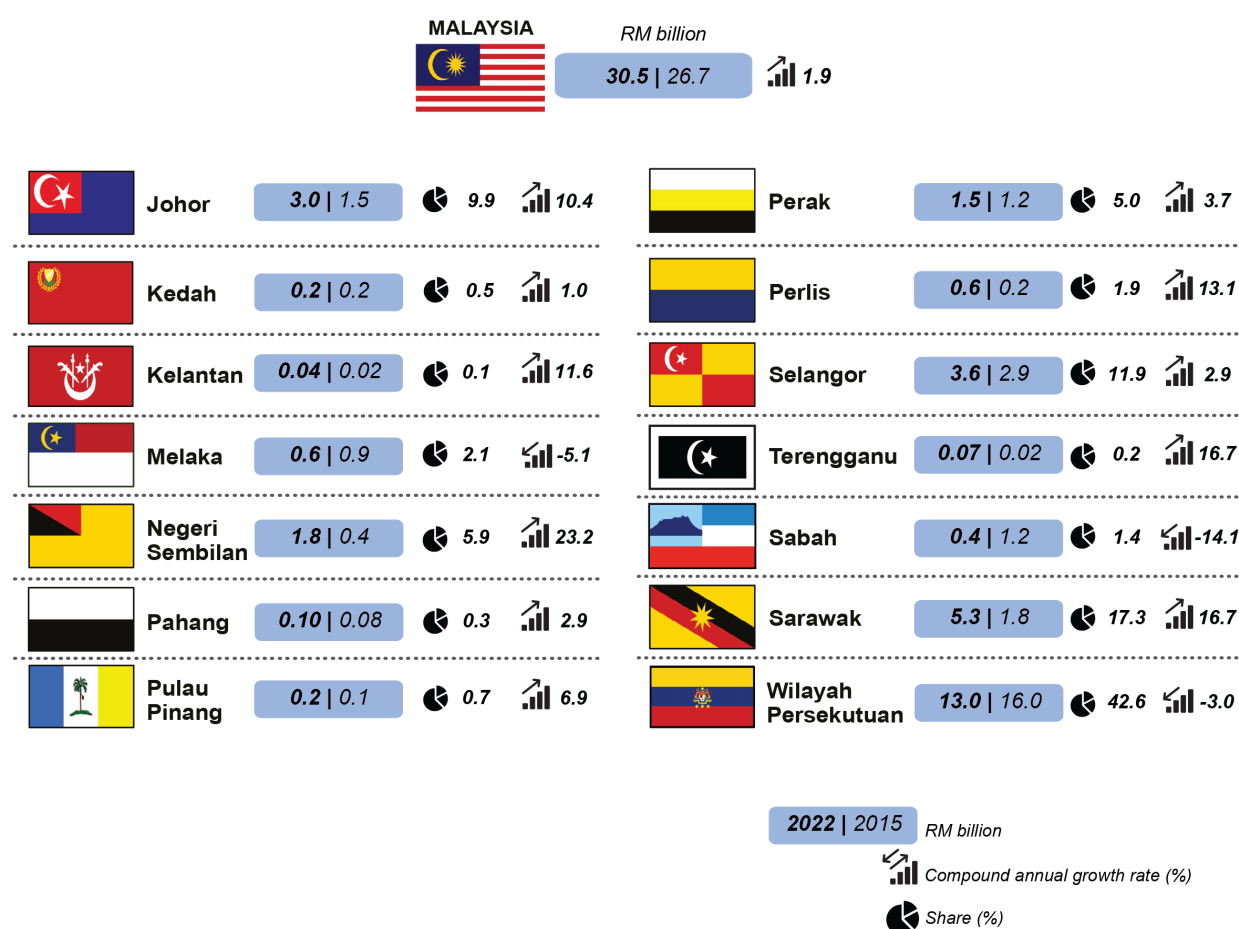


## 6.2 Value Added by State

Align with the performance of gross output, Wilayah Persekutuan contributed the highest value added at RM13.0 billion accounted for 42.6 per cent in 2022, followed by Sarawak with RM5.3 billion (share: 17.3%) and Selangor with RM3.6 billion (share: 11.9%). These states contributed 71.8 per cent to the Electricity, gas, steam, and air conditioning supply's sub-sector value added amounting to RM21.9 billion.

Negeri Sembilan exhibited double-digit growth from 2015 to 2022 by 23.2 per cent, increasing to RM1.8 billion from RM0.4 billion. Meanwhile, Sarawak and Terengganu grew annually of 16.7 per cent respectively.

**Exhibit 9: Value Added by State, 2015 and 2022**



## 7. Persons Engaged and Salaries & Wages

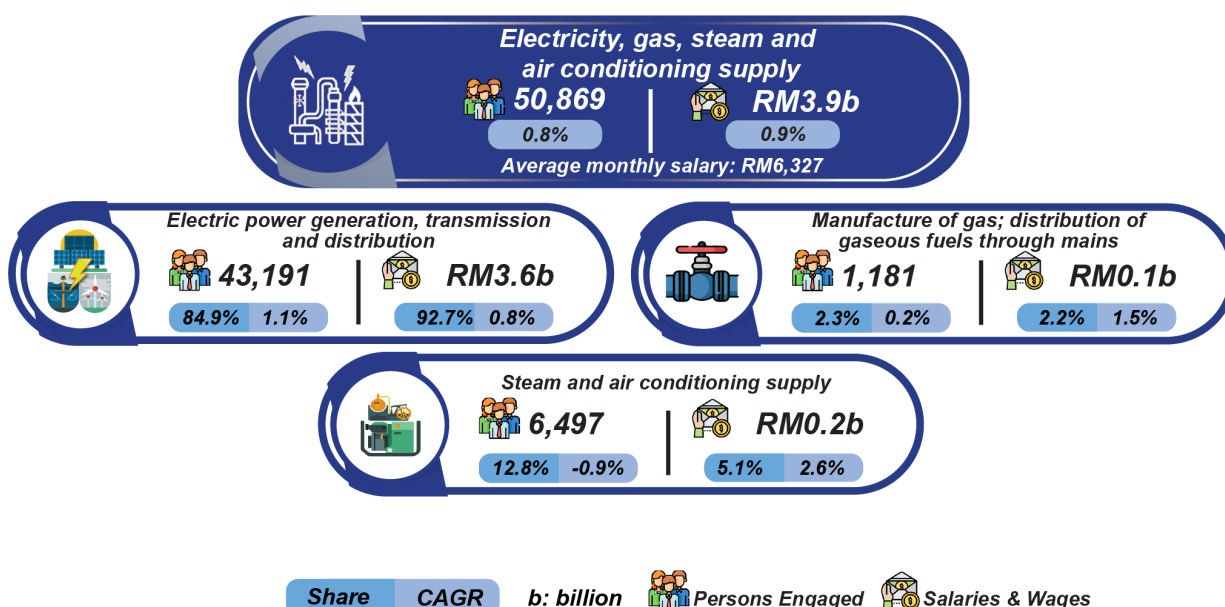
### 7.1 Persons Engaged and Salaries & Wages by Group

The number of persons engaged in this sub-sector increased by 0.8 per cent to 50,869 persons in 2022 (2015: 47,972 persons). More than half were concentrated in Electricity power generation, transmission, and distribution group, with a share of 84.9 per cent or accounted for 43,191 persons, whereas the number of persons engaged in Steam and air conditioning supply dropped 0.9 per cent with a total of 6,497 persons in 2022 (2015: 6,928 persons). Meanwhile, the number of persons engaged in the Manufacture of gas; distribution of gaseous fuels through mains increased 0.2 per cent with a total of 1,181 persons in 2022 (2015: 1,164 persons). This sub-sector is dominated by male workers, totaling 41,230 persons, constituting a commanding 81.1 per cent contribution, compared to female workers who total 9,639 persons (share: 18.9%).

In line with the increase in the number of employees, the total salaries & wages for the Electricity, gas, steam, and air conditioning supply sub-sector grew by 0.9 per cent to record a value of RM3.9 billion in 2022 (2015: RM3.6 billion). Higher salaries & wages in 2022 was attributed to Electric power generation, transmission, and distribution group which increased by 0.8 per cent with a value of RM3.6 billion (share: 92.7%).

The average salaries & wages in the Electricity, gas, steam, and air conditioning supply sub-sector amounted to RM6,327 per month in 2022.

**Exhibit 10: Persons Engaged and Salaries & Wages by Group, 2022**

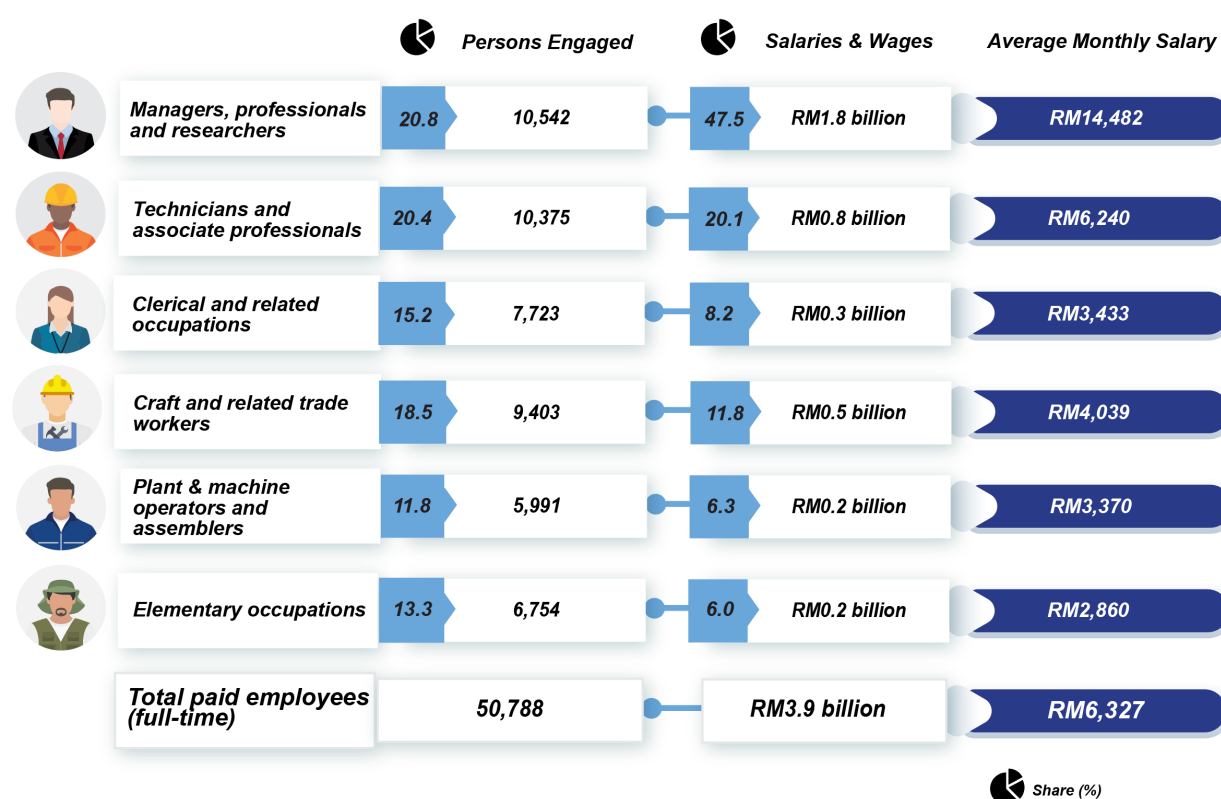


## 7.2 Full-time Paid Employees by Category of Workers

In overall, the Electricity, gas, steam, and air conditioning supply sub-sector is predominantly comprised of full-time paid employees totaling to 50,788 persons. The Managers, professionals and researchers dominated the workforce with 20.8 per cent share with a total of 10,542 persons. The category of Technicians and associate professionals accounted for 20.4 per cent with 10,375 persons while Craft and related trade workers encompassed 18.5 per cent (9,403 persons). These three categories represented 59.7 per cent with a total 30,320 persons. The salaries & wages was highest in the category of Managers and professional and researchers with a value of RM1.8 billion (share: 47.5%).

The highest average monthly salary was received by the Managers, professionals and researchers category at RM14,482 per month. This was followed by Technician and associate professionals amounted to RM6,240 per month and Craft and related trade workers (RM4,039 per month).

**Exhibit 11: Full-time Paid Employees by Category of Workers, 2022**

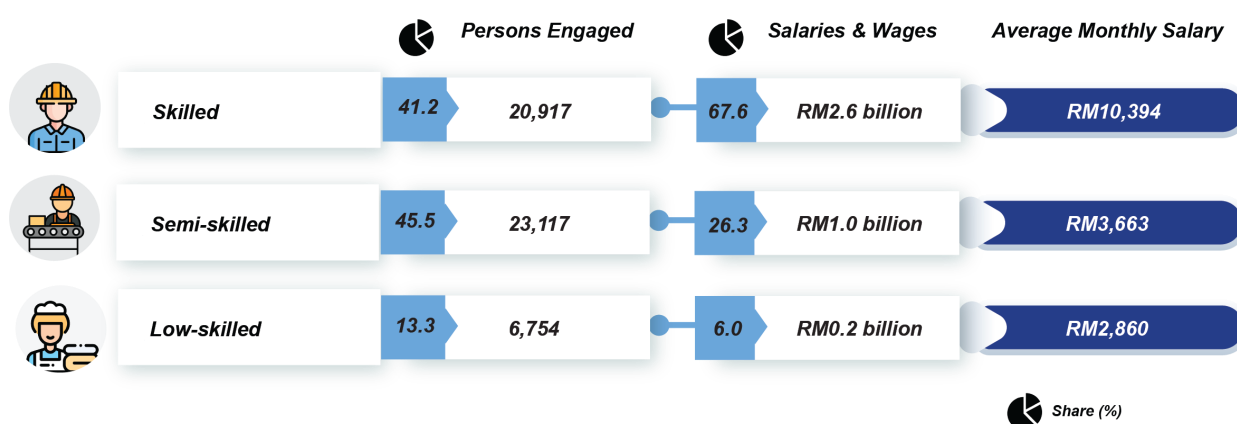


### 7.3 Full-time Paid Employees by Category of Skills

In terms of the number of persons engaged by skill category, semi-skilled workers comprised the highest number with 23,117 persons (share: 45.5%), followed by skilled workers with 20,917 persons (share: 41.2%), and low-skilled workers with 6,754 persons (share: 13.3%) in 2022. Salaries & wages for skilled workers accounted for more than two-thirds of the total share, amounting to RM2.6 billion (share: 67.6%). Meanwhile, semi-skilled and low-skilled workers received payments totaling RM1.2 billion in 2022.

Skilled workers received the highest average salaries & wages per month at RM10,394. Semi-skilled workers earned an average of RM3,663 per month, while low-skilled workers earned RM2,860 per month, as illustrated in **Exhibit 12**.

**Exhibit 12: Full-time Paid Employees by Category of Skills, 2022**

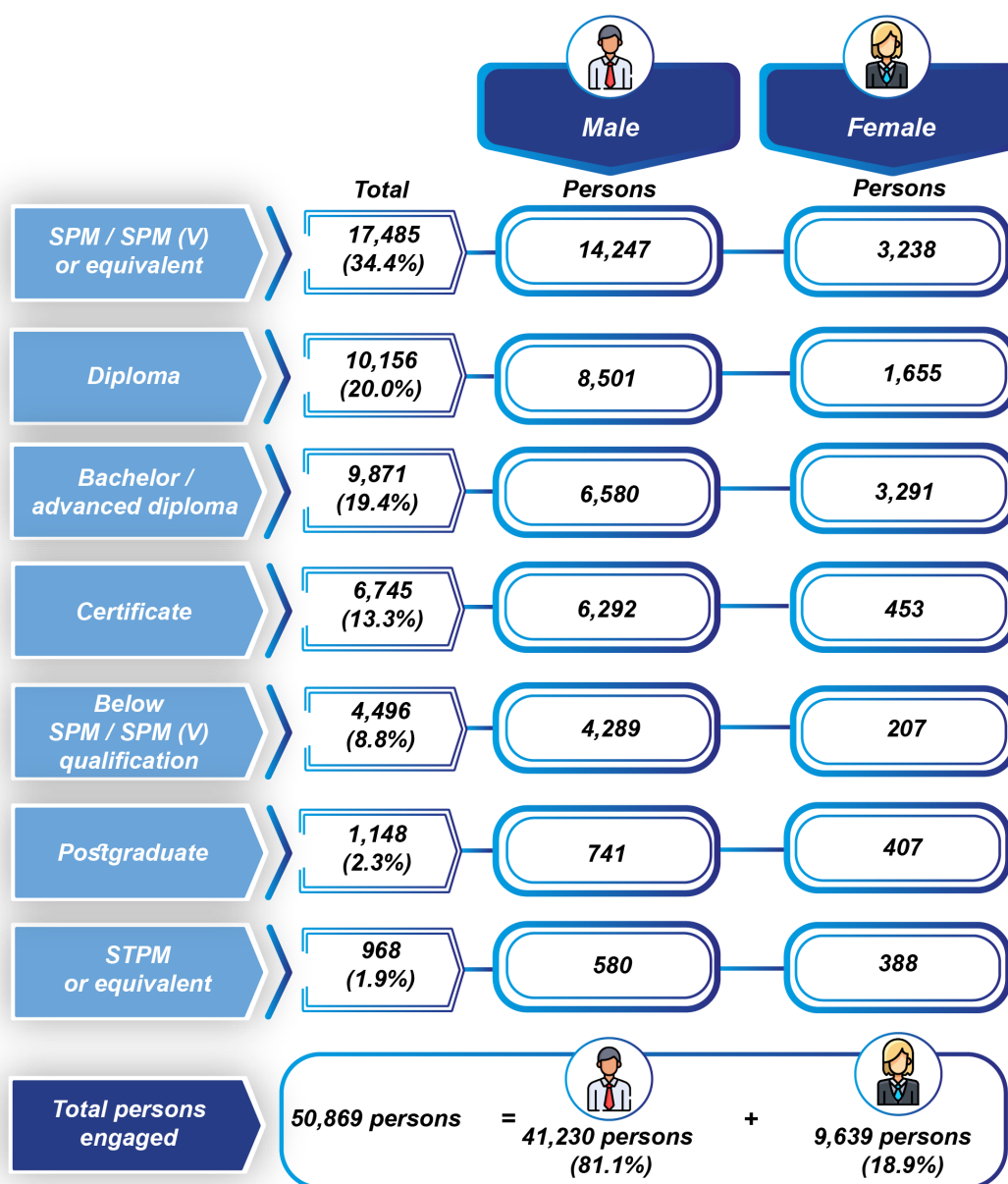


## 7.4 Persons Engaged by Highest Certificate Obtained

Persons Engaged with SPM/SPM (V) or equivalent qualification constituted 34.4 per cent, totaling 17,485 persons in the Electricity, gas, steam, and air conditioning supply sub-sector in 2022. This was followed by employees with Diploma qualifications, registering 10,156 persons (share: 20.0%), and Bachelor/advanced diploma holders with 9,871 persons (share: 19.4%).

The Electricity, gas, steam, and air conditioning supply sub-sector workforce was predominantly male, comprising 41,230 persons (share: 81.1%), while female employees accounted for 18.9 per cent, totaling 9,639 persons. SPM/SPM (V) or equivalent workers recorded the highest number of male employees with 14,247 persons (share: 34.6%).

**Exhibit 13: Persons Engaged by Highest Certificate Obtained, 2022**



%: Share

## 8. Fixed Assets

### 8.1 Fixed Assets by Group

The fixed assets for this sub-sector in 2022 recorded RM210.4 billion with an annual growth rate of 6.9 per cent. The fixed assets for the Electric power generation, transmission, and distribution group showed an annual growth rate increase to 7.3 per cent, reaching to RM206.7 billion in 2022 (2015: RM126.3 billion). Furthermore, Manufacture of gas; distribution of gaseous fuels through mains group experienced decline in the fixed assets totaling RM2.4 billion (share: 1.1%) compared to RM4.1 billion in 2015, with a declined in an annual growth rate of 7.7 per cent. The Steam and air conditioning supply group also recorded a decrease in an annual growth rate by 2.3 per cent, with a value of RM1.4 billion in 2022 (2015: RM1.7 billion).

**Exhibit 14: Fixed Assets by Group, 2015 and 2022**

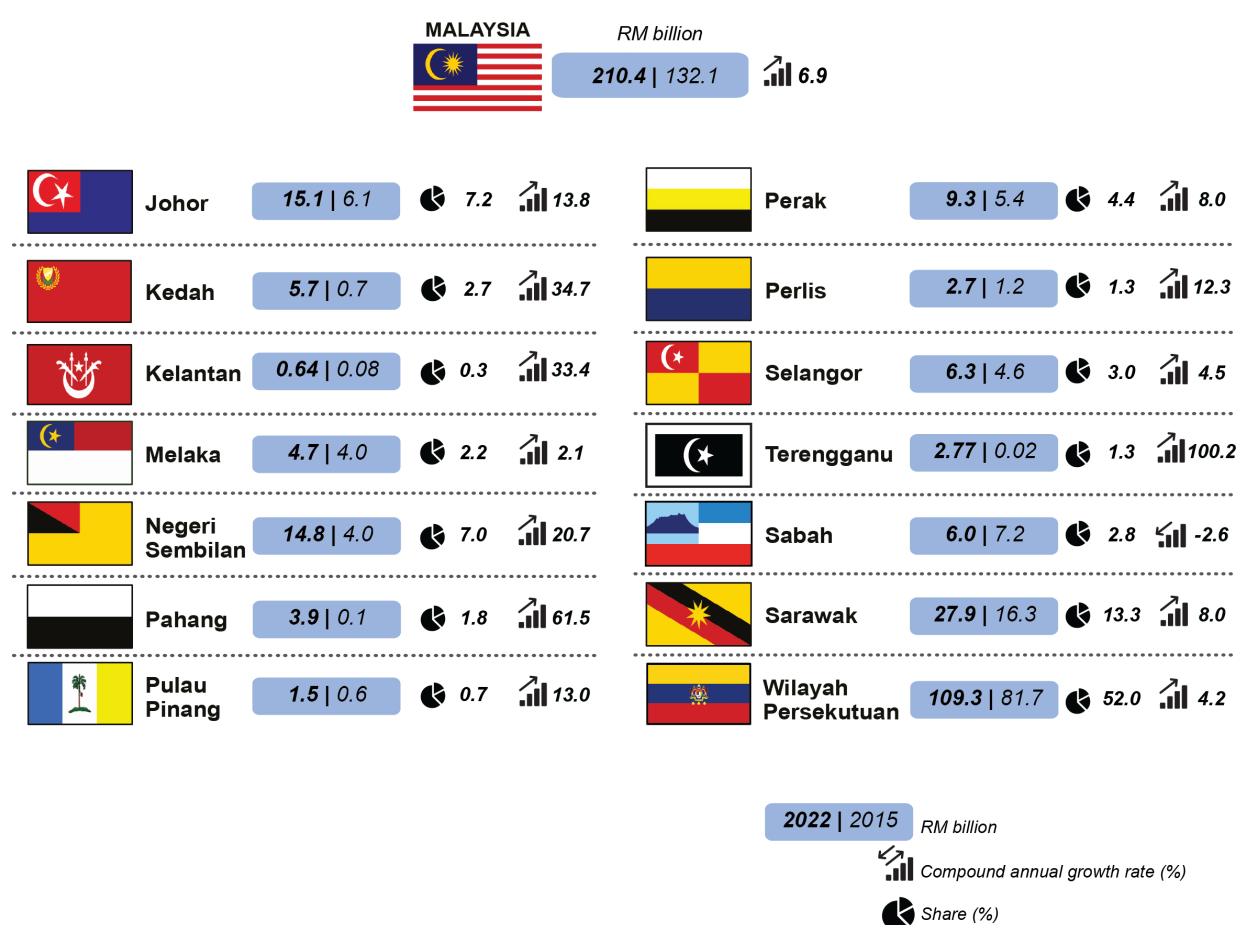
|                                                                                                                                                     | Fixed Assets (RM billion) |       | Share (%) |      | CAGR (%)  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------|-------|-----------|------|-----------|
|                                                                                                                                                     | 2015                      | 2022  | 2015      | 2022 | 2022/2015 |
|  Electricity, gas, steam and air conditioning                      | 132.1                     | 210.4 | 100       | 100  | 6.9       |
|  Electric power generation, transmission and distribution         | 126.3                     | 206.7 | 95.6      | 98.2 | 7.3       |
|  Manufacture of gas; distribution of gaseous fuels through mains | 4.1                       | 2.4   | 3.1       | 1.1  | -7.7      |
|  Steam and air conditioning supply                               | 1.7                       | 1.4   | 1.3       | 0.7  | -2.3      |

## 8.2 Fixed Assets by State

Wilayah Persekutuan contributed the highest fixed assets at RM109.3 billion accounting for 52.0 per cent in 2022, followed by Sarawak with RM27.9 billion (share: 13.3%) and Johor with RM15.1 billion (share: 7.2%). These states contributed 72.5 per cent to the Electricity, gas, steam, and air conditioning supply sub-sector's value added, amounting to RM152.3 billion.

Terengganu registered value of fixed assets amounting to RM2.77 billion in 2022 from RM0.02 billion in 2015. Pahang also showed a significant increase of 61.5 percent from RM0.1 billion in 2015 to RM3.9 billion in year 2022. Sabah, on the other hand, experienced a decrease in an annual growth rate by 2.6 percent to RM6.0 billion in 2022 (2015: RM7.2 billion).

**Exhibit 15: Fixed Assets by State, 2022**





## 9. Women-owned Establishments

The women-owned establishments in Electricity, gas, steam, and air conditioning supply sub-sector as a whole recorded 18 establishments with a contribution of 3.3 per cent in 2022. These establishments contributed RM86.3 million of gross output with value added amounting to RM40.5 million. Meanwhile, there was 347 persons engaged by these establishments as depicted in **Exhibit 16**.

**Exhibit 16: Women-owned Establishments in Electricity, Gas, Steam, and Air Conditioning Supply Sub-sector, 2022**

| Electricity, gas, steam and air conditioning supply | Value of Women-owned Establishments | Value of Sub-sector | Share Percentage |
|-----------------------------------------------------|-------------------------------------|---------------------|------------------|
| Number of Establishments                            | 18                                  | 551                 | 3.3%             |
| Gross Output                                        | RM86.3 million                      | RM90.6 billion      | 0.1%             |
| Intermediate Input                                  | RM45.8 million                      | RM60.1 billion      | 0.08%            |
| Value Added                                         | RM40.5 million                      | RM30.5 billion      | 0.13%            |
| Persons Engaged                                     | 347                                 | 50,869              | 0.7%             |
| Salaries & Wages                                    | RM10.5 million                      | RM3.9 billion       | 0.3%             |
| Fixed Assets                                        | RM255.0 million                     | RM210.4 billion     | 0.12%            |

# JADUAL STATISTIK

## *STATISTICAL TABLES*



**BAHAGIAN 3**  
*PART* **3**

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**Jadual 1: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara, 2010, 2015 dan 2022**  
*Table 1: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector, 2010, 2015 dan 2022*

| <b>Tahun</b> | <b>Bilangan pertubuhan</b>     | <b>Nilai output kasar</b>               | <b>Nilai input perantaraan</b>          | <b>Nilai ditambah</b>                   | <b>Bilangan pekerja</b>          | <b>Gaji &amp; upah</b>                  | <b>Nilai harta tetap</b>                |
|--------------|--------------------------------|-----------------------------------------|-----------------------------------------|-----------------------------------------|----------------------------------|-----------------------------------------|-----------------------------------------|
| <i>Year</i>  | <i>Number of establishment</i> | <i>Value of gross output</i>            | <i>Value of intermediate input</i>      | <i>Value added</i>                      | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i>             | <i>Value of fixed assets</i>            |
|              |                                | <b>(RM Juta)</b><br><i>(RM Million)</i> | <b>(RM Juta)</b><br><i>(RM Million)</i> | <b>(RM Juta)</b><br><i>(RM Million)</i> |                                  | <b>(RM Juta)</b><br><i>(RM Million)</i> | <b>(RM Juta)</b><br><i>(RM Million)</i> |
| 2022         | 551                            | 90,590                                  | 60,136                                  | 30,455                                  | 50,869                           | 3,857                                   | 210,442                                 |
| 2015         | 305                            | 54,389                                  | 27,679                                  | 26,710                                  | 47,972                           | 3,622                                   | 132,082                                 |
| 2010         | 145                            | 34,616                                  | 24,625                                  | 9,991                                   | 41,101                           | 3,018                                   | 77,980                                  |

**Jadual 2: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut kumpulan, 2022**  
*Table 2: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector by group, 2022*

| Keterangan kumpulan dan industri                                                                                                                        | Kod kumpulan dan industri      | Bilangan pertubuhan            | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>Group and industry description</i>                                                                                                                   | <i>Group and industry code</i> | <i>Number of establishment</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                                                                                                                                                         |                                |                                | (RM '000)                    | (RM '000)                          | (RM '000)          |                                  | (RM '000)                   | (RM '000)                    |
| <b>Jumlah</b><br><i>Total</i>                                                                                                                           |                                | <b>551</b>                     | <b>90,590,334</b>            | <b>60,135,734</b>                  | <b>30,454,600</b>  | <b>50,869</b>                    | <b>3,856,940</b>            | <b>210,442,214</b>           |
| <b>Penjanaan, penghantaran dan pengagihan tenaga elektrik</b><br><i>Electric power generation, transmission and distribution</i>                        | <b>351</b>                     | 282                            | 81,509,033                   | 53,996,126                         | 27,512,907         | 43,191                           | 3,574,036                   | 206,651,938                  |
| <b>Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama</b><br><i>Manufacture of gas; distribution of gaseous fuels through mains</i> | <b>352</b>                     | 46                             | 7,285,137                    | 4,984,373                          | 2,300,764          | 1,181                            | 85,503                      | 2,366,050                    |
| <b>Bekalan wap dan pendingin udara</b><br><i>Steam and air conditioning supply</i>                                                                      | <b>353</b>                     | 223                            | 1,796,164                    | 1,155,235                          | 640,929            | 6,497                            | 197,401                     | 1,424,225                    |

**Jadual 2.1: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut industri, 2022**

*Table 2.1: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector by industry, 2022*

| Keterangan kumpulan dan industri                                                                                                                                                                                                                                                                                                                        | Kod kumpulan dan industri      | Bilangan pertubuhan            | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>Group and industry description</i>                                                                                                                                                                                                                                                                                                                   | <i>Group and industry code</i> | <i>Number of establishment</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                                                                                                                                                                                                                                                                                                                                                         |                                |                                | (RM '000)                    | (RM '000)                          | (RM '000)          |                                  | (RM '000)                   | (RM '000)                    |
| <b>Jumlah</b><br><i>Total</i>                                                                                                                                                                                                                                                                                                                           |                                | <b>551</b>                     | <b>90,590,334</b>            | <b>60,135,734</b>                  | <b>30,454,600</b>  | <b>50,869</b>                    | <b>3,856,940</b>            | <b>210,442,214</b>           |
| <b>Operasi kemudahan penjanaan yang menghasilkan tenaga elektrik</b><br><i>Operation of generation facilities that produce electric energy</i>                                                                                                                                                                                                          | <b>35101</b>                   | 254                            | 80,361,495                   | 53,152,412                         | 27,209,083         | 42,777                           | 3,553,673                   | 206,532,758                  |
| <b>Operasi penghantaran, pengagihan dan penjualan elektrik</b><br><i>Operation of transmission, distribution and sales of electricity</i>                                                                                                                                                                                                               | <b>35102</b>                   | 28                             | 1,147,538                    | 843,713                            | 303,825            | 414                              | 20,363                      | 119,180                      |
| <b>Pembuatan bahan api berunsur gas yang mempunyai spesifikasi nilai calorific, mengikut penulenan, pencampuran dan proses lain dari jenis gas yang lain termasuk gas asli</b><br><i>Manufacture of gaseous fuels with a specified calorific value, by purification, blending and other processes from gases of various types including natural gas</i> | <b>35201</b>                   | 8                              | 770,468                      | 361,626                            | 408,842            | 174                              | 16,103                      | 580,563                      |
| <b>Pengangkutan, pengagihan dan bekalan semua jenis bahan api berunsur gas melalui sistem saluran utama</b><br><i>Transportation, distribution and supply of gaseous fuels of all kinds through a system of mains</i>                                                                                                                                   | <b>35202</b>                   | 14                             | 587,175                      | 307,537                            | 279,638            | 709                              | 57,405                      | 1,759,111                    |

**Jadual 2.1: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut industri, 2022 (samb.)**

*Table 2.1: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector by industry, 2022 (cont'd)*

| Keterangan kumpulan dan industri                                                                                                                                                                                        | Kod kumpulan dan industri      | Bilangan pertubuhan            | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|--------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>Group and industry description</i>                                                                                                                                                                                   | <i>Group and industry code</i> | <i>Number of establishment</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                                                                                                                                                                                                                         |                                |                                | (RM '000)                    | (RM '000)                          | (RM '000)          |                                  | (RM '000)                   | (RM '000)                    |
| <b>Penjualan gas kepada pengguna melalui saluran utama</b><br><i>Sale of gas to the user through mains</i>                                                                                                              | <b>35203</b>                   | 24                             | 5,927,494                    | 4,315,210                          | 1,612,284          | 298                              | 11,995                      | 26,376                       |
| <b>Pengeluaran, pengumpulan dan pengagihan wap dan air panas untuk pemanasan, tenaga dan tujuan lain</b><br><i>Production, collection and distribution of steam and hot water for heating, power and other purposes</i> | <b>35301</b>                   | 6                              | 131,347                      | 92,143                             | 39,204             | 52                               | 3,000                       | 88,061                       |
| <b>Pengeluaran dan pengagihan udara dingin, air yang disejukkan bagi tujuan pendinginan</b><br><i>Production and distribution of cooled air, chilled water for cooling purposes</i>                                     | <b>35302</b>                   | 22                             | 834,788                      | 561,735                            | 273,054            | 605                              | 39,067                      | 1,079,787                    |
| <b>Pengeluaran ais, termasuk ais untuk tujuan makanan dan bukan makanan</b><br><i>Production of ice, including ice for food and non-food purposes</i>                                                                   | <b>35303</b>                   | 195                            | 830,029                      | 501,357                            | 328,671            | 5,840                            | 155,335                     | 256,377                      |



**Jadual 3: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut negeri, 2022**

*Table 3: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector by state, 2022*

| Negeri                      | Bilangan pertubuhan             | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|-----------------------------|---------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>State</i>                | <i>Number of establishments</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                             |                                 | (RM'000)                     | (RM'000)                           | (RM'000)           |                                  | (RM'000)                    | (RM'000)                     |
| <b>Jumlah Total</b>         | <b>551</b>                      | <b>90,590,334</b>            | <b>60,135,734</b>                  | <b>30,454,600</b>  | <b>50,869</b>                    | <b>3,856,940</b>            | <b>210,442,214</b>           |
| <b>Johor</b>                | 45                              | 11,594,415                   | 8,577,189                          | 3,017,227          | 1,876                            | 135,859                     | 15,076,966                   |
| <b>Kedah</b>                | 34                              | 759,243                      | 597,486                            | 161,757            | 389                              | 21,720                      | 5,684,445                    |
| <b>Kelantan</b>             | 21                              | 89,007                       | 48,890                             | 40,117             | 293                              | 8,526                       | 639,379                      |
| <b>Melaka</b>               | 9                               | 3,682,773                    | 3,033,325                          | 649,448            | 392                              | 29,801                      | 4,651,110                    |
| <b>Negeri Sembilan</b>      | 14                              | 6,768,364                    | 4,978,283                          | 1,790,081          | 703                              | 39,118                      | 14,752,949                   |
| <b>Pahang</b>               | 21                              | 207,678                      | 110,591                            | 97,086             | 390                              | 15,277                      | 3,880,754                    |
| <b>Pulau Pinang</b>         | 49                              | 1,914,454                    | 1,695,703                          | 218,751            | 797                              | 27,078                      | 1,476,884                    |
| <b>Perak</b>                | 33                              | 10,290,313                   | 8,755,428                          | 1,534,885          | 1,557                            | 91,381                      | 9,312,043                    |
| <b>Perlis</b>               | 9                               | 891,138                      | 301,302                            | 589,836            | 213                              | 17,185                      | 2,676,308                    |
| <b>Selangor</b>             | 161                             | 13,218,549                   | 9,603,583                          | 3,614,966          | 3,664                            | 241,230                     | 6,252,933                    |
| <b>Terengganu</b>           | 21                              | 183,514                      | 110,635                            | 72,879             | 798                              | 30,185                      | 2,771,455                    |
| <b>Sabah</b>                | 51                              | 3,184,839                    | 2,760,020                          | 424,820            | 4,775                            | 286,412                     | 5,979,387                    |
| <b>Sarawak</b>              | 33                              | 11,559,839                   | 6,276,890                          | 5,282,949          | 5,957                            | 412,658                     | 27,938,396                   |
| <b>*Wilayah Persekutuan</b> | 50                              | 26,246,209                   | 13,286,410                         | 12,959,799         | 29,065                           | 2,500,510                   | 109,349,205                  |

**Nota / Note :**

**\* Termasuk Wilayah Persekutuan Kuala Lumpur, Labuan dan Putrajaya**

*Includes Wilayah Persekutuan Kuala Lumpur, Labuan and Putrajaya*

**Jadual 4: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut taraf sah, 2022**

*Table 4: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector by legal status, 2022*

| Taraf sah                                                                                                                                                      | Bilangan pertubuhan             | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>Legal status</i>                                                                                                                                            | <i>Number of establishments</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                                                                                                                                                                |                                 | (RM '000)                    | (RM '000)                          | (RM '000)          |                                  | (RM '000)                   | (RM '000)                    |
| <b>Jumlah</b><br><i>Total</i>                                                                                                                                  | <b>551</b>                      | <b>90,590,334</b>            | <b>60,135,734</b>                  | <b>30,454,600</b>  | <b>50,869</b>                    | <b>3,856,940</b>            | <b>210,442,214</b>           |
| <b>Hak milik perseorangan</b><br><i>Individual proprietorship</i>                                                                                              | 54                              | 53,611                       | 32,868                             | 20,742             | 429                              | 9,426                       | 18,004                       |
| <b>Perkongsian</b><br><i>Partnership</i>                                                                                                                       | 18                              | 19,150                       | 10,313                             | 8,838              | 189                              | 4,530                       | 6,091                        |
| <b>Perkongsian liabiliti terhad</b><br><i>Limited liabilities partnership</i>                                                                                  | 468                             | 56,147,902                   | 41,865,596                         | 14,282,306         | 18,842                           | 1,083,023                   | 88,385,559                   |
| <b>Syarikat sendirian berhad</b><br><i>Private limited company</i>                                                                                             |                                 |                              |                                    |                    |                                  |                             |                              |
| <b>Syarikat awam berhad</b><br><i>Public limited company</i>                                                                                                   | 6                               | 34,359,657                   | 18,220,860                         | 16,138,797         | 31,337                           | 2,757,599                   | 122,030,642                  |
| <b>Syarikat koperasi;<br/>Pertubuhan Persendirian Yang<br/>Tidak Mencari Keuntungan</b><br><i>Co-operative;<br/>Private Non-Profit Making<br/>Organisation</i> | 5                               | 10,015                       | 6,097                              | 3,918              | 72                               | 2,363                       | 1,916                        |

**Jadual 5: Statistik utama subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut hak milik, 2022**

*Table 5: Principal statistics of Electricity, gas, steam and air conditioning supply sub-sector by ownership, 2022*

| Hak milik                                                       | Bilangan pertubuhan             | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|-----------------------------------------------------------------|---------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>Ownership</i>                                                | <i>Number of establishments</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                                                                 |                                 | (RM '000)                    | (RM '000)                          | (RM '000)          |                                  | (RM '000)                   | (RM '000)                    |
| <b>Jumlah</b><br><i>Total</i>                                   | <b>551</b>                      | <b>90,590,334</b>            | <b>60,135,734</b>                  | <b>30,454,600</b>  | <b>50,869</b>                    | <b>3,856,940</b>            | <b>210,442,214</b>           |
| <b>Residen Malaysia</b><br><i>Malaysian residents</i>           | }                               | 551                          | 90,590,334                         | 60,135,734         | 30,454,600                       | 50,869                      | 3,856,940                    |
| <b>Bukan residen Malaysia</b><br><i>Non-Malaysian residents</i> |                                 |                              |                                    |                    |                                  |                             |                              |
| <b>Hak milik bersama</b><br><i>Joint ownership</i>              | -                               | -                            | -                                  | -                  | -                                | -                           | -                            |

**Jadual 6: Bilangan pekerja dan gaji & upah subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut kategori pekerja dan jantina, 2022**  
**Table 6: Number of persons engaged and salaries & wages of Electricity, gas, steam and air conditioning supply sub-sector by category of workers and sex, 2022**

| Kategori pekerja<br>Category of workers                                                                                                                                                         | Bilangan pekerja<br>Number of persons engaged |                |                     | Gaji & upah<br>Salaries & wages<br>(RM '000) |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|----------------|---------------------|----------------------------------------------|
|                                                                                                                                                                                                 | Jumlah<br>Total                               | Lelaki<br>Male | Perempuan<br>Female |                                              |
| <b>Jumlah (A+B+C) / Total (A+B+C)</b>                                                                                                                                                           | <b>50,869</b>                                 | <b>41,230</b>  | <b>9,639</b>        | <b>3,856,940</b>                             |
| <b>A. Jumlah pemilik yang bekerja dan pekerja keluarga tidak bergaji</b><br>Total working proprietors and unpaid family workers                                                                 | <b>70</b>                                     | <b>56</b>      | <b>14</b>           | <b>-</b>                                     |
| <b>Pemilik yang bekerja dan rakan niaga yang aktif</b><br>Working proprietors and active business partners                                                                                      | 67                                            | 55             | 12                  | -                                            |
| <b>Pekerja keluarga tanpa gaji (semua ahli keluarga dan rakan yang tidak menerima upah yang tetap)</b><br>Unpaid family workers (all members of family and friends not receiving regular wages) | 3                                             | 1              | 2                   | -                                            |
| <b>B. Bilangan pekerja bergaji (sepenuh masa)</b><br>Total paid employees (full-time)                                                                                                           | <b>50,788</b>                                 | <b>41,163</b>  | <b>9,625</b>        | <b>3,856,792</b>                             |
| <b>Pengurus</b><br>Managers                                                                                                                                                                     | 1,993                                         | 1,605          | 388                 | 551,694                                      |
| <b>Profesional</b><br>Professionals                                                                                                                                                             | 8,344                                         | 5,155          | 3,189               | 1,253,341                                    |
| <b>Penyelidik</b><br>Researcher                                                                                                                                                                 | 205                                           | 55             | 150                 | 26,956                                       |
| <b>Juruteknik dan Profesional Bersekutu</b><br>Technicians and Associate Professionals                                                                                                          | 10,375                                        | 9,680          | 695                 | 776,868                                      |
| <b>Pekerja Sokongan Perkeranian</b><br>Clerical Support Workers                                                                                                                                 | 4,352                                         | 1,305          | 3,047               | 194,925                                      |
| <b>Pekerja Perkhidmatan dan Jualan</b><br>Services and Sales Workers                                                                                                                            | 3,371                                         | 1,915          | 1,456               | 123,204                                      |
| <b>Pekerja Kemahiran dan Pekerja Pertukangan yang berkaitan</b><br>Craft and Related Trades Workers                                                                                             | 9,403                                         | 9,225          | 178                 | 455,739                                      |
| <b>Operator Mesin dan Loji, dan Pemasang</b><br>Plant and Machine Operators and Assemblers                                                                                                      | 5,991                                         | 5,704          | 287                 | 242,298                                      |
| <b>Pekerja Asas</b><br>Elementary Occupations                                                                                                                                                   | 6,754                                         | 6,519          | 235                 | 231,768                                      |
| <b>C. Bilangan pekerja bergaji (sambilan)</b><br>Total employees (part-time)                                                                                                                    | <b>11</b>                                     | <b>11</b>      | <b>0</b>            | <b>149</b>                                   |

**Jadual 7: Bilangan pekerja dan gaji & upah subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut kemahiran dan jantina, 2022**  
*Jadual 7: Number of persons engaged and salaries & wages of Electricity, gas, steam and air conditioning supply sub-sector by skills and sex, 2022*

| Kategori kemahiran<br><i>Category of skilled</i> | Bilangan pekerja<br><i>Number of persons engaged</i> |                       |                            | Gaji & upah<br><i>Salaries &amp; wages</i><br><br>(RM '000) |
|--------------------------------------------------|------------------------------------------------------|-----------------------|----------------------------|-------------------------------------------------------------|
|                                                  | Jumlah<br><i>Total</i>                               | Lelaki<br><i>Male</i> | Perempuan<br><i>Female</i> |                                                             |
| <b>Jumlah *</b><br><i>Total</i>                  | <b>50,788</b>                                        | <b>41,163</b>         | <b>9,625</b>               | <b>3,856,792</b>                                            |
| <b>Mahir</b><br><i>Skilled</i>                   | 20,917                                               | 16,495                | 4,422                      | 2,608,858                                                   |
| <b>Separuh mahir</b><br><i>Semi-skilled</i>      | 23,117                                               | 18,149                | 4,968                      | 1,016,166                                                   |
| <b>Berkemahiran rendah</b><br><i>Low-skilled</i> | 6,754                                                | 6,519                 | 235                        | 231,768                                                     |

**Nota / Note :**

**\*Tidak termasuk pemilik yang bekerja dan rakan niaga yang aktif, pekerja keluarga tidak bergaji dan pekerja bergaji (sambilan)**  
*Excludes working proprietors and active business partners, unpaid family workers and paid employees (part-time)*

**Jadual 8: Bilangan pekerja subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut sijil tertinggi diperoleh dan jantina, 2022**  
**Table 8: Number of persons engaged of Electricity, gas, steam and air conditioning supply sub-sector by highest certificate obtained and sex, 2022**

| Kategori sijil<br><i>Category of certificate</i>                                                           | Bilangan pekerja<br><i>Number of persons engaged</i> |                       |                            |
|------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------|----------------------------|
|                                                                                                            | Jumlah<br><i>Total</i>                               | Lelaki<br><i>Male</i> | Perempuan<br><i>Female</i> |
| <b>Jumlah</b><br><i>Total</i>                                                                              | <b>50,869</b>                                        | <b>41,230</b>         | <b>9,639</b>               |
| <b>Pascasiswazah</b><br><i>Postgraduate</i>                                                                | 1,148                                                | 741                   | 407                        |
| <b>Ijazah sarjana muda/Diploma lanjutan atau setaraf</b><br><i>Bachelor/Advanced diploma or equivalent</i> | 9,871                                                | 6,580                 | 3,291                      |
| <b>Diploma</b><br><i>Diploma</i>                                                                           | 10,156                                               | 8,501                 | 1,655                      |
| <b>STPM atau yang setaraf</b><br><i>STPM or equivalent</i>                                                 | 968                                                  | 580                   | 388                        |
| <b>Sijil</b><br><i>Certificate</i>                                                                         | 6,745                                                | 6,292                 | 453                        |
| <b>SPM/SPM(V) atau yang setaraf</b><br><i>SPM/SPM(V) or equivalent</i>                                     | 17,485                                               | 14,247                | 3,238                      |
| <b>Di bawah taraf kelulusan SPM/SPM(V)</b><br><i>Below SPM/SPM(V) qualification</i>                        | 4,496                                                | 4,289                 | 207                        |

**Jadual 9: Bilangan pekerja dan gaji & upah subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut kewarganegaraan, jantina dan kumpulan, 2022**  
*Table 9: Number of persons engaged and salaries & wages of Electricity, gas, steam and air conditioning supply sub-sector by citizenship, sex and group, 2022*

| Keterangan kumpulan<br><i>Group description</i>                                                                                                  | Kod<br>kumpulan<br><i>Group<br/>code</i> | Bilangan pekerja<br><i>Number of persons engaged</i> |                                                          |                                                                       |                                                          |                                                                       | Gaji & upah<br><i>Salaries &amp; wages</i> |
|--------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|----------------------------------------------------------|-----------------------------------------------------------------------|--------------------------------------------|
|                                                                                                                                                  |                                          | Jumlah<br><i>Total</i>                               | Lelaki<br><i>Male</i>                                    |                                                                       | Perempuan<br><i>Female</i>                               |                                                                       |                                            |
|                                                                                                                                                  |                                          |                                                      | Warganegara<br>Malaysia<br><i>Malaysian<br/>Citezens</i> | Bukan<br>Warganegara<br>Malaysia<br><i>Non-Malaysian<br/>Citezens</i> | Warganegara<br>Malaysia<br><i>Malaysian<br/>Citezens</i> | Bukan<br>Warganegara<br>Malaysia<br><i>Non-Malaysian<br/>Citezens</i> |                                            |
|                                                                                                                                                  |                                          |                                                      |                                                          |                                                                       |                                                          |                                                                       |                                            |
|                                                                                                                                                  |                                          |                                                      |                                                          |                                                                       |                                                          |                                                                       |                                            |
| (RM '000)                                                                                                                                        |                                          |                                                      |                                                          |                                                                       |                                                          |                                                                       |                                            |
| Jumlah<br><i>Total</i>                                                                                                                           |                                          | 50,869                                               | 39,659                                                   | 1,571                                                                 | 9,571                                                    | 68                                                                    | 3,856,940                                  |
| Penjanaan, penghantaran dan pengagihan tenaga elektrik<br><i>Electric power generation, transmission and distribution</i>                        | 351                                      | 43,191                                               | 34,155                                                   | 612                                                                   | 8,391                                                    | 33                                                                    | 3,574,036                                  |
| Pembuatan gas; pengagihan bahan api berunsur gas melalui saluran utama<br><i>Manufacture of gas; distribution of gaseous fuels through mains</i> | 352                                      | 1,181                                                | 691                                                      | 124                                                                   | 347                                                      | 19                                                                    | 85,503                                     |
| Bekalan wap dan pendingin udara<br><i>Steam and air conditioning supply</i>                                                                      | 353                                      | 6,497                                                | 4,813                                                    | 835                                                                   | 833                                                      | 16                                                                    | 197,401                                    |



**Jadual 10: Nilai harta tetap subsektor Bekalan elektrik, gas, wap dan pendingin udara mengikut jenis harta, 2022**

Table 10: Value of fixed assets of Electricity, gas, steam and air conditioning supply sub-sector by type of assets, 2022

| Jenis harta                                                                         | Nilai buku bersih seperti pada 01.01.2022 | Perbelanjaan modal dalam tahun 2022 | Harta yang dijual dalam tahun 2022 | Susut nilai semasa   | Nilai buku bersih seperti pada 31.12.2022 | Sewa yang dibayar dalam tahun 2022 |
|-------------------------------------------------------------------------------------|-------------------------------------------|-------------------------------------|------------------------------------|----------------------|-------------------------------------------|------------------------------------|
| Type of assets                                                                      | Net book value as at 01.01.2022           | Capital expenditure during 2022     | Assets sold during 2022            | Current depreciation | Net book value as at 31.12.2022           | Rent paid during 2022              |
|                                                                                     | (RM '000)                                 | (RM '000)                           | (RM '000)                          | (RM '000)            | (RM '000)                                 | (RM '000)                          |
| <b>Jumlah (A+B)</b><br>Total (A+B)                                                  | <b>205,404,471</b>                        | <b>29,668,161</b>                   | <b>1,845,328</b>                   | <b>21,983,773</b>    | <b>210,442,214</b>                        | <b>113,566</b>                     |
| <b>A. Harta tetap / Fixed assets</b>                                                | <b>142,459,043</b>                        | <b>9,027,209</b>                    | <b>1,121,641</b>                   | <b>16,733,781</b>    | <b>133,644,664</b>                        | <b>113,566</b>                     |
| Tanah / Land                                                                        | 11,982,086                                | 112,150                             | 102,057                            | 36,109               | 11,956,070                                | 19,528                             |
| Bangunan dan binaan lain :<br>Buildings and other construction :                    | 34,767,026                                | 2,683,328                           | 252,219                            | 2,697,051            | 34,501,215                                | 81,820                             |
| Tempat kediaman / Residential                                                       | 1,186,229                                 | 94,134                              | -                                  | 43,488               | 1,236,849                                 | 323                                |
| Bukan tempat kediaman / Non-residential                                             | 30,529,442                                | 2,510,715                           | 251,542                            | 2,590,483            | 30,198,288                                | 81,104                             |
| Binaan lain kecuali pembangunan tanah<br>Other construction except land improvement | 3,051,355                                 | 78,479                              | 675                                | 63,080               | 3,066,078                                 | 393                                |
| Pembangunan tanah / Land improvement                                                | 3,053,024                                 | 2,294                               | -                                  | 53,154               | 3,002,164                                 | -                                  |
| Alat pengangkutan / Transport equipment                                             | 2,582,266                                 | 414,224                             | 26,737                             | 298,083              | 2,671,845                                 | 520                                |
| Kereta penumpang / Passenger cars                                                   | 147,156                                   | 4,420                               | 453                                | 1,538                | 149,716                                   | 100                                |
| Kenderaan perdagangan / Commercial vehicles                                         | 2,432,375                                 | 409,654                             | 26,284                             | 296,236              | 2,519,553                                 | 420                                |
| Lain-lain / Others                                                                  | 2,736                                     | 150                                 |                                    | 310                  | 2,576                                     | -                                  |
| Teknologi maklumat dan komunikasi :<br>Information and communications technology :  | 1,058,180                                 | 98,811                              | 2                                  | 162,095              | 994,896                                   | 4,367                              |
| Perkakasan komputer / Computer hardware                                             | 633,997                                   | 97,232                              | 2                                  | 111,827              | 619,402                                   | -                                  |
| Perisian komputer / Computer software                                               | 409,771                                   | 1,575                               | -                                  | 49,250               | 362,095                                   | 4,367                              |
| Peralatan telekomunikasi / Telecommunications equipment                             | 14,413                                    | 4                                   | -                                  | 1,018                | 13,399                                    | -                                  |
| Jentera dan kelengkapan / Machinery and equipment                                   | 86,607,242                                | 5,146,277                           | 734,126                            | 13,182,748           | 77,850,058                                | 7,307                              |
| Perabot dan pemasangan / Furniture and fittings                                     | 2,409,218                                 | 570,126                             | 6,502                              | 304,540              | 2,668,415                                 | 24                                 |
| <b>B. Harta lain / Other assets</b>                                                 | <b>62,945,428</b>                         | <b>20,640,952</b>                   | <b>723,687</b>                     | <b>5,249,992</b>     | <b>76,797,550</b>                         | <b>-</b>                           |

**Jadual 11: Statistik utama pertubuhan milikan wanita dalam subsektor Bekalan elektrik, gas, wap dan pendingin udara, 2022**  
*Table 11: Principal statistics of women-owned establishment in Electricity, gas, steam and air conditioning supply sub-sector, 2022*

| Subsektor                                                                                                           | Bilangan pertubuhan            | Nilai output kasar           | Nilai input perantaraan            | Nilai ditambah     | Bilangan pekerja                 | Gaji & upah                 | Nilai harta tetap            |
|---------------------------------------------------------------------------------------------------------------------|--------------------------------|------------------------------|------------------------------------|--------------------|----------------------------------|-----------------------------|------------------------------|
| <i>Sub-sector</i>                                                                                                   | <i>Number of establishment</i> | <i>Value of gross output</i> | <i>Value of intermediate input</i> | <i>Value added</i> | <i>Number of persons engaged</i> | <i>Salaries &amp; wages</i> | <i>Value of fixed assets</i> |
|                                                                                                                     |                                | (RM '000)                    | (RM '000)                          | (RM '000)          |                                  | (RM '000)                   | (RM '000)                    |
| <b>Jumlah</b><br><i>Total</i>                                                                                       | <b>18</b>                      | <b>86,327</b>                | <b>45,816</b>                      | <b>40,511</b>      | <b>347</b>                       | <b>10,513</b>               | <b>254,980</b>               |
| <b>Bekalan elektrik, gas, wap dan pendingin udara</b><br><i>Electricity, gas, steam and air conditioning supply</i> | 18                             | 86,327                       | 45,816                             | 40,511             | 347                              | 10,513                      | 254,980                      |

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# NOTA TEKNIKAL

## *TECHNICAL NOTES*



# BAHAGIAN **4**

## *PART*

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## 1. SKOP DAN LIPUTAN

Penerbitan ini menggunakan data daripada Banci Ekonomi 2023 (tahun rujukan 2022). Banci mengumpul maklumat daripada pertubuhan berdaftar dalam sektor Pertanian, Perlombongan & pengkuarian, Pembuatan, Pembinaan dan Perkhidmatan. Klasifikasi industri merujuk kepada Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Versi 1.0 yang selaras dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, United Nations*. Liputan bagi keseluruhan sektor merangkumi 1,200 kategori industri seperti yang ditunjukkan pada **Jadual 1**.

Jadual 1 : Bilangan industri mengikut sektor

| Sektor                       | Bilangan Industri |
|------------------------------|-------------------|
| Pertanian*                   | 142               |
| Perlombongan dan pengkuarian | 56                |
| Pembuatan                    | 259               |
| Pembinaan                    | 72                |
| <b>Perkhidmatan</b>          | <b>645</b>        |
| <b>Jumlah</b>                | <b>1,174</b>      |

Nota\*: Usahawan dalam sektor Pertanian yang hanya berdaftar dengan agensi-agensi kerajaan yang berkaitan bagi maksud menerima bantuan TIDAK diliputi kecuali pengusaha kelapa sawit

Keseluruhan liputan banci bagi subsektor Bekalan elektrik, gas, wap dan pendingin udara terdiri daripada lapan industri di peringkat 5-digit. Industri ini dikelaskan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0. Senarai lengkap industri yang diliputi adalah di Lampiran Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0.

## 2. SUMBER RANGKA STATISTIK

Sumber utama rangka statistik pertubuhan adalah daripada *Malaysia Statistical Business Register* (MSBR). MSBR adalah senarai pertubuhan/ perusahaan yang beroperasi di Malaysia yang merangkumi Daftar Syarikat (ROC), Daftar Perniagaan (ROB) dan Perkongsian Liabiliti Terhad (LLP) yang berdaftar dengan Suruhanjaya Syarikat Malaysia (SSM) serta pertubuhan yang berdaftar dengan pihak berkuasa tempatan dan badan profesional. Senarai di MSBR dikemaskini secara berkala berdasarkan survei dan bancian yang dijalankan oleh Jabatan Perangkaan Malaysia dan sumber data pentadbiran daripada pelbagai agensi. Sumber utama data pentadbiran adalah daripada Suruhanjaya Syarikat Malaysia (SSM). Selain itu, DOSM juga bekerjasama untuk mendapatkan maklumat terkini daripada agensi lain seperti Kumpulan Wang Simpanan Pekerja (KWSP), Jabatan Kastam Diraja Malaysia, Lembaga Hasil Dalam Negeri (LHDN), Pertubuhan Keselamatan Sosial (SOCSO), pihak berkuasa tempatan dan badan profesional.

Selain itu, sumber maklumat utama rangka pertubuhan bagi subsektor Bekalan Elektrik, Gas, Wap dan Pendingin Udara juga diperoleh daripada Kementerian Peralihan Tenaga dan Transformasi (PETRA), Suruhanjaya Tenaga (ST), Tenaga Nasional Berhad (TNB), Sabah Electricity Sdn. Bhd. (SESB) dan Sarawak Energy Berhad (SEB). Rangka dikemaskini untuk mengambil kira pertubuhan baru dan sebarang perubahan dalam status pertubuhan seperti tutup, tidak beroperasi, perubahan jenis aktiviti dan lokasi atau alamat pos untuk memastikan maklumat yang terdapat dalam rangka adalah yang terkini.

### 3. JENIS AKTIVITI PERNIAGAAN

Jenis aktiviti perniagaan merujuk kepada aktiviti utama dan sekunder. Aktiviti utama merujuk kepada aktiviti yang mana pertubuhan menumpukan sebahagian besar sumbernya atau memberi sumbangan besar dari segi pendapatan. Aktiviti sekunder didefinisikan sebagai aktiviti sampingan kepada aktiviti utama. Klasifikasi industri bagi pertubuhan adalah berasaskan kepada aktiviti utama dan mengikut Piawaian Klasifikasi Industri Malaysia (MSIC) 2008 Ver. 1.0 yang diselaraskan dengan *International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, United Nations*, dengan pengubahsuaian mengikut keperluan tempatan.

### 4. KONSEP DAN DEFINISI

Konsep dan definisi yang digunakan selari dengan *International Recommendations for Industrial Statistics, United Nations Statistical Division*. Takrif subsektor Bekalan elektrik, gas, wap dan pendingin udara yang digunakan dalam banci ini adalah selaras dengan MSIC 2008 Ver. 1.0. Bekalan elektrik, gas, wap dan pendingin udara adalah ditakrifkan sebagai aktiviti pembekalan tenaga elektrik, gas asli, wap, air panas dan seumpamanya melalui satu infrastruktur (rangkaian) tetap bagi talian, saluran utama dan paip. Dimensi rangkaian ini tidak dapat ditentukan; juga termasuk pengagihan elektrik, gas, wap, air panas dan seumpamanya di kawasan perindustrian atau bangunan tempat kediaman. Oleh itu, seksyen ini termasuk operasi utiliti elektrik dan gas yang menjana, mengawal dan mengagih tenaga elektrik atau gas. Juga termasuk bekalan wap dan pendingin udara.

### 5. TAHUN BANCİ

Tahun banci merujuk kepada tahun pelaksanaan bancian dijalankan.

### 6. TAHUN RUJUKAN

Tahun rujukan bagi penerbitan banci ini adalah tahun takwim 2022. Pertubuhan yang mempunyai tahun kewangan yang berbeza daripada tahun takwim diminta menyediakan laporan mengikut tahun perakaunan atau kewangan yang meliputi sekurang-kurangnya enam (6) bulan dalam tahun rujukan.

### 7. KAEDAH PENGUMPULAN

Bancian ini secara umumnya dijalankan dengan menggunakan tiga (3) kaedah pengumpulan data seperti berikut:

#### 7.1 Kutipan data melalui kaedah atas talian menerusi e-BE portal

Kaedah ini menyasarkan responden yang telah menggunakan kaedah ini bagi survei rutin terdahulu.

### 7.2 Kutipan data melalui e-mel, pos, faks dan telefon

Kaedah ini menyasarkan responden yang pernah terlibat dengan survei rutin terdahulu. Responden diberi tempoh satu bulan untuk melengkapkan dan mengembalikan borang soal selidik tersebut kepada DOSM.

### 7.3 Kutipan data secara bersemuka

Kerja luar operasi di lapangan dijalankan untuk mendapatkan maklum balas daripada pertubuhan yang belum memberi jawapan dari kedua-dua kaedah di atas dan kaedah ini menyasarkan pertubuhan yang tidak pernah terlibat dengan survei rutin DOSM.

## 8. UNIT PELAPOR

Unit pelapor bagi Banci Ekonomi 2023 adalah pertubuhan. Sesebuah pertubuhan secara ideal ditakrifkan sebagai “satu unit ekonomi yang bergiat di bawah satu hak milik atau penguasaan tunggal, iaitu di bawah satu entiti yang sah. Ia menjalankan satu jenis subsektor ekonomi utama di satu tempat/ lokasi fizikal”. Setiap pertubuhan diberikan klasifikasi industri berdasarkan aktiviti utamanya dan bukannya mengikut aktiviti syarikat induk.

Setiap cawangan daripada organisasi yang mempunyai beberapa cawangan di lokasi yang berbeza dari segi konsep dianggap sebagai pertubuhan yang berlainan. Pertubuhan berkenaan diminta memberikan penyata yang berasingan bagi setiap kegiatannya dari segi nilai. Walau bagaimanapun, dari segi praktis akaun biasanya disediakan secara berpusat kerana kesukaran untuk memperoleh data yang berasingan bagi setiap unit atau cawangan, entiti atau enterprise ini akan dianggap sebagai satu unit pelapor dan dibenarkan mengemukakan soal selidik yang menggabungkan semua unit atau cawangannya.

## 9. PEMBOLEH UBAH UTAMA:

### 9.1 TARAF SAH

Taraf sah sesebuah pertubuhan telah ditakrifkan seperti berikut:

#### a. Hak milik perseorangan

Merujuk kepada perniagaan yang dimiliki dan dijalankan oleh orang perseorangan semata-mata untuk mendapatkan keuntungan sendiri. Pemilik mempunyai hak mutlak atas segala urusan pertubuhannya.

#### b. Perkongsian

Merujuk kepada sekumpulan individu yang telah bersetuju mengikat kontrak dan menjalankan perniagaan dengan matlamat untuk memperoleh keuntungan. Perniagaan tersebut diuruskan oleh kesemua mereka atau salah seorang daripada mereka yang bertindak mewakili semua pihak. Perkongsian perniagaan ini hendaklah mengandungi sekurang-kurangnya dua (2) orang ahli dan tidak melebihi had maksimum dua puluh orang.



**c. Perkongsian liabiliti terhad**

Merujuk kepada perniagaan entiti yang dikawal selia di bawah Akta Perkongsian Liabiliti Terhad 2012. Ia memberi perlindungan liabiliti terhad kepada rakan-rakan kongsinya sama seperti liabiliti terhad yang dinikmati oleh pemegang saham sesebuah syarikat. Ia juga memberi fleksibiliti peraturan perniagaan dalaman melalui pengaturan perkongsian yang serupa dengan sesebuah perkongsian konvensional.

**d. Syarikat sendirian berhad**

Merupakan syarikat persendirian yang ditubuhkan bagi tujuan menjalankan perniagaan dengan matlamat untuk mencari keuntungan. Saham dipegang secara tertutup oleh pemegang-pemegang saham yang mempunyai kawalan terhadap operasi syarikat;

Ciri-ciri:

- i. Dikawal di bawah Akta Syarikat 1965 dan merupakan entiti yang sah terpisah daripada pemilik;
- ii. Dimiliki oleh 2 - 50 orang pemegang saham;
- iii. Pemilik syarikat mempunyai liabiliti terhad;
- iv. Pemegang saham yang memiliki 51 peratus atau lebih daripada jumlah saham syarikat berhak untuk mengawal syarikat tersebut. Saham syarikat boleh dijual beli tetapi tidak dilakukan di pasaran terbuka;
- v. Penjualan saham mesti dengan persetujuan pemegang saham yang lain
- vi. Tidak disenaraikan di Bursa; dan
- vii. Jangka hayat perniagaan adalah panjang dan boleh dikenali perkataan Sendirian Berhad (Sdn. Bhd.) pada akhir nama syarikat.

**e. Syarikat awam berhad**

Syarikat awam berhad merupakan perniagaan yang ditubuhkan dengan tanggungan berhad, oleh sekurang kurangnya dua orang untuk menjalankan perniagaan dengan tujuan untuk mencari keuntungan. Saham syarikat awam berhad ini dipegang secara terbuka dan bagi sesebuah syarikat yang disenaraikan di Bursa Malaysia, sahamnya boleh bertukar milik secara bebas;

Ciri-ciri:

- i. Dikawal di bawah Akta Syarikat 1965 dan merupakan entiti yang sah terpisah daripada pemilik;
- ii. Dimiliki oleh pemegang pemegang saham dan tiada had bagi pemilik saham berkenaan;
- iii. Pengurusan dan kawalan syarikat adalah di bawah tanggungjawab Lembaga Pengarah yang dilantik oleh pemegang saham; dan
- iv. Disenaraikan di Bursa Malaysia.

**f. Syarikat koperasi**

Koperasi adalah organisasi yang ditubuhkan untuk faedah bersama ahli dan didaftarkan di bawah Akta Koperasi 1993. Kumpulan wang yang ada adalah milik bersama untuk memenuhi keperluan ahli-ahlinya.

**g. Perbadanan awam**

Ia merupakan sebuah perbadanan yang ditubuhkan di bawah Akta Khas Parlimen atau Dewan Perundangan Negeri.

**h. Pertubuhan persendirian tidak mencari keuntungan**

Merujuk kepada syarikat tanpa saham yang ditubuhkan dengan tanggungan berhad. Kebanyakan syarikat ini terdiri daripada pertubuhan kebajikan, keagamaan, pendidikan, kesihatan, kebudayaan, rekreasi dan pertubuhan yang memberikan perkhidmatan sosial dan kemasyarakatan kepada isi rumah. Perkhidmatan diberikan secara percuma atau pada harga yang tidak melebihi kos perkhidmatan (subsidi). Sebarang keuntungan yang diperoleh dilabur semula ke dalam pertubuhan berkenanan.

## 9.2 STRUKTUR HAK MILIK

Hak milik sesebuah pertubuhan dikelaskan mengikut taraf residen pemilik/pemilik-pemilik modal berbayar yang terbesar (melebihi 50%) dan bukannya mengikut taraf kewarganegaraan mereka. Dalam kes di mana setiap pihak (Residen Malaysia dan Bukan Residen Malaysia) memegang bilangan saham yang sama banyak dalam perniagaan berkenaan, maka pertubuhan tersebut telah dikelaskan di bawah "Hak Milik Bersama".

Residen Malaysia ialah individu, syarikat atau organisasi lain yang lazimnya terletak di Malaysia untuk jangka masa sekurang-kurangnya satu (1) tahun. Cawangan dan/atau anak syarikat asing yang didaftarkan/ diperbadankan di Malaysia adalah dianggap sebagai Residen Malaysia.

Bukan Residen Malaysia ialah individu, syarikat atau organisasi lain yang lazimnya terletak di negara selain Malaysia. Cawangan dan anak syarikat milik Residen Malaysia di luar negeri juga dianggap sebagai Bukan Residen Malaysia.

## 9.3 PERTUBUHAN MILIKAN WANITA

Merujuk kepada pertubuhan yang memiliki sekurang-kurangnya 51 peratus pemilikan ekuiti dipegang oleh wanita ATAU pemegang saham terbesar adalah wanita dan diuruskan oleh wanita ATAU Ketua Pegawai Eksekutif atau Pengarah urusan adalah wanita yang memiliki sekurang-kurangnya 10 peratus ekuiti.

#### 9.4 NILAI OUTPUT KASAR

Nilai output kasar **subsektor Bekalan elektrik, gas, wap dan pendingin udara** ditakrifkan dengan memasukkan perkara berikut:

- + Jualan daripada operasi penjanaan / penghantaran / pengeluaran sendiri
- + Bayaran diterima bagi kerja memproses dengan menggunakan bahan pertubuhan lain
- + Pendapatan daripada kerja membaiki dan menyelenggara jentera dan kelengkapan pertubuhan lain
- + Nilai jualan (daripada barang / bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)
- + Nilai daripada kerja perindustrian lain (cth. Pembinaan, Kuari dsb.)
- + Pendapatan output lain t.t.t.l. (cth. skrap, tenaga elektrik, produk sisa dsb.)
- + Pendapatan daripada perkhidmatan profesional (cth. perakaunan, pengurusan, kejuruteraan, guaman, penyelidikan dan pembangunan dsb.)
- + Komisen dan brokeraj yang diterima
- + Pendapatan daripada sewa: Lain-lain
- + Royalti, hakcipta, pelesenan dan yuran francais
- + Lain-lain pendapatan operasi
- + Membuat / membina sendiri: (Jumlah)
- + Stok akhir: barang dalam proses
- Stok awal: barang dalam proses
- + Stok akhir: stok barang siap (dibuat sendiri)
- Stok awal: stok barang siap (dibuat sendiri)
- + Stok akhir: barang yang dibeli untuk dijual semula (stok perniagaan)
- Stok awal: barang yang dibeli untuk dijual semula (stok perniagaan)
- + Stok akhir: lain-lain
- Stok awal: lain-lain
- Kos barang yang dijual (barang / bahan yang dibeli untuk dijual semula tanpa melalui proses selanjutnya)
- + Perbelanjaan penyelidikan dan pembangunan: dalaman

#### 9.5 NILAI INPUT PERANTARAAN

Nilai input perantaraan **subsektor Bekalan elektrik, gas, wap dan pendingin udara** ditakrifkan dengan memasukkan unsur berikut:

Nilai bahan mentah dan bekalan yang digunakan

- + Kos bahan mentah / komponen / bahagian yang digunakan
- + Bahan dan bekas pembungkus
- + Bahan yang digunakan bagi pembaikan dan penyelenggaraan
- + Keperluan kilang (cth. alat-alat dan barang keperluan semasa)
- + Alat tulis dan bekalan pejabat
- + Air yang dibeli
- + Tenaga elektrik yang dibeli
- + Bahan pembakar, pelincir dan gas
- + Bayaran bagi kerja memproses yang dibuat oleh pihak lain yang menggunakan bahan yang dibekal oleh pertubuhan ini
- + Bayaran pembaikan dan penyelenggaraan semasa yang dibuat oleh pihak lain bagi harta tetap pertubuhan ini

- + Pengangkutan barang (pengangkutan keluar)
- + Perbelanjaan perjalanan (termasuk perjalanan dalam dan luar negara, bil petrol/diesel dan bayaran parkir kenderaan sendiri)
- + Bayaran perakaunan, kesetiausahaan dan audit
- + Bayaran guaman
- + Bayaran pengurusan
- + Perbelanjaan keraian
- + Bayaran pos (termasuk perkhidmatan kurier)
- + Bayaran bank
- + Premium insurans dibayar ke atas bangunan, jentera, alat pengangkutan dan barang
- + Komisen dan bayaran agensi
- + Pengiklanan dan promosi
- + Bayaran perkhidmatan profesional lain (cth. bayaran perundingan arkitek, kejuruteraan, juruukur dsb.)
- + Bayaran pemprosesan data dan lain-lain perkhidmatan yang berkaitan dengan teknologi maklumat
- + Bayaran telekomunikasi (cth. telefon, internet dsb.)
- + Lain-lain bayaran perkhidmatan bukan perindustrian
- + Bayaran sewa: sewaan operasi (tidak termasuk bayaran bagi sewa tanah) dan lain-lain
- + Bayaran royalti kepada: organisasi bukan kerajaan / tajaan korporat
- + Lain-lain perbelanjaan operasi
- + Bayaran kepada pengarah tidak bekerja kerana kehadiran mereka dalam mesyuarat Lembaga Pengarah
- + Nilai pakaian percuma yang disediakan
- + Kos latihan kepada pekerja
- + Bayaran kepada pertubuhan lain yang membekalkan pekerja
- + Bayaran bagi perkhidmatan keselamatan
- + Stok awal: bahan mentah, bahan pembakar, bekalan dan bahan pembungkusan
- Stok akhir: bahan mentah, bahan pembakar, bekalan dan bahan pembungkusan

## 9.6 NILAI DITAMBAH

Nilai ditambah adalah perbezaan di antara output kasar dan input perantaraan. Ini hampir menyamai dengan keuntungan perniagaan, gaji dan upah, susut nilai cukai tidak langsung; campur faedah yang dibayar dan tolak faedah yang diterima.

## 9.7 BILANGAN PEKERJA

Bilangan pekerja merujuk kepada bilangan orang yang bekerja pada bulan Disember atau pada tempoh pembayaran gaji terakhir bagi tahun rujukan. Bilangan orang yang bekerja dikategorikan seperti berikut:

### 9.7.1 Pemilik yang bekerja dan pekerja keluarga tidak bergaji

#### i. Pemilik yang bekerja dan rakan niaga yang aktif

Kategori ini merujuk kepada semua pemilik perseorangan dan rakan niaga, sambilan atau sepenuh masa, yang bekerja dengan aktif dalam sesebuah pertubuhan itu. Justeru, ia tidak termasuk rakan niaga yang tidak aktif.

#### ii. Pekerja keluarga tidak bergaji

Kategori ini meliputi semua ahli isi rumah kepada pemilik pertubuhan yang melaksanakan kerja tertentu (sepenuh masa atau sambilan) dan bekerja sekurang-kurangnya satu pertiga daripada waktu bekerja biasa yang diamalkan oleh pertubuhan berkenaan tanpa mendapat bayaran secara tetap, sama ada dalam bentuk wang tunai atau harta benda bagi kerja yang dilakukan. Biasanya pekerja berkenaan mendapat makanan, tempat tinggal dan bantuan lain sebagai sebahagian daripada ahli isi rumah pemilik tersebut dan terus mendapatnya sama ada ia bekerja atau tidak dalam pertubuhan itu.

### 9.7.2 Pekerja bergaji (sepenuh masa)

Merujuk kepada semua pekerja bergaji (sepenuh masa) yang bekerja sekurang-kurangnya enam jam sehari dan/atau 20 hari sebulan. Pekerja bergaji (sepenuh masa) telah dikategorikan berdasarkan Piawaian Pengkelasan Pekerjaan Malaysia (MASCO) 2020 seperti berikut:

#### i. Pengurus, profesional dan penyelidik meliputi:

##### a. Pengurus

Merujuk kepada mereka yang menggubal, menganalisa, merumus, mengarah dan memberi nasihat tentang dasar kerajaan, dan membuat, memansuhkan undang-undang, kaedah dan peraturan awam, dan mewakili serta bertindak bagi pihak kerajaan, dan memantau pentafsiran dan pelaksanaan dasar dan undang-undang kerajaan, atau menjalankan tugas yang seumpamanya bagi pihak pertubuhan berkepentingan khas, atau mengatur, memimpin, mengawal dan menyelaras dasar dan aktiviti perusahaan, organisasi, jabatan atau seksyen dalamannya; dan

**b. Profesional**

Merujuk kepada mereka yang bertanggungjawab untuk meningkatkan ilmu pengetahuan sedia ada, mengaplikasikan konsep dan teori saintifik atau artistik, mengajar tentang perkara tersebut dengan cara bersistematik, atau terlibat dalam apa-apa gabungan tiga aktiviti di atas.

**ii. Juruteknik dan profesional bersekutu**

Merujuk kepada mereka yang melakukan tugas teknikal dan tugas yang berkaitan dengan penyelidikan dan pengaplikasian konsep sains atau seni dan kaedah operasi, dan peraturan kerajaan atau perniagaan.

**iii. Perkeranian, pekerja perkhidmatan & jualan, kemahiran khas, operator mesin & loji dan pekerjaan yang berkaitan:**

**a. Pekerja sokongan perkeranian**

Merujuk kepada mereka yang merekod, mengurus, menyimpan dan mendapatkan maklumat yang berkaitan, dan menjalankan tugas-tugas perkeranian berhubung dengan operasi pentadbiran, pengendalian wang, urusan perjalanan, permintaan maklumat dan janji temu;

**b. Pekerja perkhidmatan dan jualan**

Merujuk kepada mereka yang menyediakan perkhidmatan peribadi berkaitan dengan perjalanan, pengemasan, katering, penjagaan diri, atau perlindungan dari kebakaran dan undang-undang yang berkaitan, atau menunjuk cara dan menjual barangan di kedai borong atau runcit dan pertubuhan seumpamanya termasuk di gerai dan pasar;

**c. Pekerja kemahiran dan pekerja pertukangan yang berkaitan**

Merujuk kepada mereka yang mengaplikasikan pengetahuan dan kemahiran khusus dalam bidang perlombongan dan pembinaan, penempatan logam, dan mendirikan struktur logam; membuat, melaraskan, menyelenggara dan membaik pulih jentera, kelengkapan atau peralatan; menjalankan kerja pencetakan; dan mengeluarkan atau memproses barang makanan, tekstil atau kayu, logam dan barangan lain termasuk barang kraftangan; dan

**d. Operator mesin & loji, dan pemasang**

Merujuk kepada mereka yang mengendalikan dan mengawasi jentera dan kelengkapan perindustrian dan pertanian; memandu dan mengendalikan kereta api, kenderaan bermotor, jentera dan kelengkapan bergerak; atau memasang bahagian komponen produk mengikut spesifikasi dan prosedur yang ketat.

iv. **Pekerja asas**

Merujuk kepada mereka yang menjalankan tugas yang mudah, rutin dan tidak sistematik yang biasanya memerlukan penggunaan perkakas tangan atau dengan sokongan mesin yang mudah, dan memerlukan tenaga fizikal yang banyak.

**9.7.3 Pekerja bergaji (sambilan)**

Merujuk kepada semua pekerja bergaji yang bekerja kurang daripada enam jam sehari dan/atau kurang daripada 20 hari sebulan.

**9.8 KATEGORI KEMAHIRAN**

Kategori kemahiran telah dikelaskan berdasarkan Piawaian Pengkelasan Pekerjaan Malaysia (MASCO) 2020 adalah seperti berikut:

**9.8.1 Mahir**

Pengurus, profesional & penyelidik, dan Juruteknik & profesional bersekutu;

**9.8.2 Separuh mahir**

Pekerja sokongan perkeranian, perkhidmatan dan jualan, Pekerja kemahiran & pekerja pertukangan yang berkaitan serta Operator mesin & loji dan pemasangan; dan

**9.8.3 Berkemahiran rendah**

Pekerja asas.

**9.9 GAJI & UPAH**

Semua pembayaran (gaji, upah, bonus, komisyen, bayaran lebih masa dan elaun tunai termasuk belanja sara hidup, perumahan, kereta, makanan dan sebagainya) yang dibuat sepanjang tahun rujukan meliputi semua pekerja bergaji dalam setiap kategori pekerja yang diambil secara langsung termasuk jumlah bayaran yang dibuat adalah sebelum ditolak cukai pendapatan dan caruman pekerja kepada Kumpulan Wang Simpanan Pekerja (KWSP)/ Pertubuhan Keselamatan Sosial (PERKESO)/ Kumpulan wang simpanan lain/ Kumpulan Wang Persaraan (KWAP). Caruman majikan kepada kumpulan wang yang di atas hendaklah dikecualikan.

**9.10 NILAI HARTA TETAP**

Harta tetap meliputi semua barangan, baru atau terpakai, aset ketara atau aset tidak ketara yang digunakan secara berulang atau berterusan yang mempunyai hayat produktif lebih daripada setahun. Ini termasuk tanah, bangunan & struktur, alat pengangkutan, komputer, jentera & kelengkapan, perabot & pemasangan, eksplorasi mineral dan harta lain. Harta lain meliputi aset biologi iaitu pokok/tanaman (kecuali pokok balak yang bertujuan untuk pembalakan), ternakan dan perikanan akuakultur yang mengeluarkan hasil berulang kali dan mempunyai jangka hayat lebih daripada satu tahun.

Nilai harta tetap awal dan akhir bagi tahun rujukan 2022 adalah berasaskan nilai buku bersih. Pembelian, pindaan dan pembaikan besar atau perbelanjaan modal pada tahun berkenaan dikira pada nilai kos sebenar yang dibayar. Nilai harta tetap yang dijual dalam tahun semasa juga dikira pada nilai sebenar.

## 10. PEMBUNDARAN

Jumlah bagi angka komponen mungkin berbeza dengan jumlah besar disebabkan oleh pembundaran.

## 11. KADAR PERTUMBUHAN TAHUNAN DIKOMPAUN (CAGR)

Kadar pertumbuhan tahunan dikompaun ( $r$ ) dikira berdasarkan formula berikut :

$$y^t = y_0 (1+r)^t$$

di mana,

$$r = \left[ e^{\frac{1}{t} \ln\left(\frac{y_t}{y_0}\right)} - 1 \right] \times 100$$

di mana,

|       |   |                             |
|-------|---|-----------------------------|
| $y^t$ | = | Nilai pada tahun semasa     |
| $y_0$ | = | Nilai pada tahun sebelum    |
| $t$   | = | Bilangan tahun, $y^t - y_0$ |
| $r$   | = | Kadar pertumbuhan tahunan   |

## 12. SIMBOL DAN SINGKATAN

|          |   |                                 |
|----------|---|---------------------------------|
| -        | : | tiada maklumat                  |
| &        | : | dan                             |
| %        | : | peratus                         |
| }        | : | digabungkan                     |
| 0        | : | nilai kurang daripada 500       |
| 0.0      | : | nilai kurang daripada 0.05 juta |
| b        | : | bilion                          |
| CAGR     | : | kadar pertumbuhan tahunan       |
| dll.     | : | dan lain-lain                   |
| n.a      | : | tidak berkenaan                 |
| RM       | : | Ringgit Malaysia                |
| t.t.t.l. | : | tidak terkelas di tempat lain   |
| W.P.     | : | Wilayah Persekutuan             |



## 1. SCOPE AND COVERAGE

This publication used data from Economic Census 2023 (reference year 2022). The census collected information from registered establishments in Agriculture, Mining & quarrying, Manufacturing, Construction and Services sectors. The classification for industries refers to Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0, which is in accordance with the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4 United Nations. The coverage for all sectors encompasses 1,200 categories of industries as shown in **Table 1**.

Table 1: Category of industries by sector

| Sector               | Category of Industries |
|----------------------|------------------------|
| Agriculture*         | 142                    |
| Mining and quarrying | 56                     |
| Manufacturing        | 259                    |
| Construction         | 72                     |
| Services             | 645                    |
| <b>Total</b>         | <b>1,174</b>           |

Note\*: Entrepreneurs in the Agriculture sector which registered with relevant government agencies for the purpose of receiving aid were NOT covered except palm oil's entrepreneurs.

The coverage of the census for the Electricity, gas, steam and air conditioning supply sub-sector consists of eight industries at the 5-digit level. These industries are classified according to the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0. The complete list of covered industries is shown in the Appendix of the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0.

## 2. SOURCE OF STATISTICAL FRAME

The main source of the organization's statistical framework is from the Malaysia Statistical Business Register (MSBR). MSBR is a list of organizations/enterprises operating in Malaysia that includes the Register of Companies (ROC), Register of Business (ROB) and Limited Liability Partnership (LLP) registered with the Companies Commission of Malaysia (SSM) as well as organizations registered with local authorities and professional bodies. The list in MSBR is updated regularly based on surveys and censuses conducted by the Department of Statistics Malaysia and administrative data sources from various agencies. The main source of administrative data is from the Companies Commission of Malaysia (SSM). In addition, DOSM also collaborates to obtain the latest information from other agencies such as the Employees' Provident Fund (EPF), the Royal Malaysian Customs Department, the Inland Revenue Board (IRB), the Social Security Organization (SOCSO), local authorities and professional bodies.

Besides, the main source of information on the organizational framework for the sub-sector of Electricity, gas, steam and air conditioning supply is also obtained from the Ministry of Energy Transition and Water Transformation (PETRA), the Energy Commission (ST), Tenaga Nasional Berhad (TNB), Sabah Electricity Sdn. Bhd. (SESB) and Sarawak Energy Berhad (SEB). The frame is updated to take into account new establishments and any changes in the status of the establishment such closed down, not in operation, to record change in type of activity and location correspondence to ensure the frame is at the most current status.

### **3. TYPE OF BUSINESS ACTIVITY**

Type of business activity refers to both principal and secondary activities. The principal activity refers to the activity to which the establishment devoted most of its resources or activity which derived most of its income. Secondary activities are defined as those incidental or ancillary to the principal activity. The classification of industry for the establishment is based on the principal activity and is in accordance with the Malaysia Standard Industrial Classification (MSIC) 2008 Ver. 1.0 which conforms to the International Standard Industrial Classification of All Economic Activities (ISIC), Rev. 4, United Nations, with modifications to suit local conditions.

### **4. CONCEPTS AND DEFINITIONS**

Concepts and definitions used are based on the International Recommendations for Industrial Statistics, United Nations Statistical Division. The definition of Electricity, gas, steam and air conditioning supply sub-sector used in this census accordance with the MSIC 2008 Ver. 1.0. Electricity, gas, steam and air conditioning supply sub-sector is defined as the activity of providing electric power, natural gas, steam, hot water and the like through a permanent infrastructure (network) of lines, mains and pipes. The dimension of the network is not decisive; also included are the distribution of electricity, gas, steam, hot water and the like in industrial parks or residential buildings. This section therefore includes the operation of electric and gas utilities, which generate, control and distribute electric power or gas. Also included is the provision of steam and air-conditioning supply.

### **5. CENSUS YEAR**

Census year refers to the year the census is conducted.

### **6. REFERENCE YEAR**

The reference year of the census was the calendar year 2022. Establishments whose accounting year differed from calendar year were requested to report according to the accounting year or financial year covering at least six (6) months in the reference year.

### **7. METHOD OF COLLECTION**

This census was generally conducted through three (3) methods of data collection, namely:

#### **7.1 Data collection method via online method through e-BE portal**

This method targets respondents who have used this method for previous routine surveys.

## 7.2 **Data collection method via e-mail, post, fax and telephone**

*This method targets respondents who have used this method for previous routine surveys. Respondents were given a period of one month to complete and return the questionnaire to the DOSM.*

## 7.3 **Face-to-face data collection method**

*Field work operation is carried out to get feedback from establishments that have not yet given answers from the two methods above and this method also targets establishments that have never been involved in a routine survey the DOSM.*

# 8. **REPORTING UNIT**

*The reporting unit for Economic Census 2023 was the establishment. As establishment is defined as “an economic unit engaged in one activity, under a single legal entity and operating in a single physical location”. Each establishment is assigned an industry classification based on its principal activity and not according to the activities of the parent company.*

*Each branch of a multi-branch organization at a different location is conceptually treated as a different establishment. The establishment is requested to give separate returns for each activity in terms of value. However, if in practice, the accounts are centrally kept such that it was not possible to obtain separate data for each individual unit or branch. The entity or enterprise is treated as a single reporting unit and allowed to submit a consolidated questionnaire covering all the units or branches.*

# 9. **KEY VARIABLES:**

## 9.1 **LEGAL STATUS**

*The legal status of an establishment has been defined as follows:*

### a. **Individual proprietorship**

*Refers to a business owned and operated by one person for his own profit. The owner has the exclusive right to control the operation of the establishment.*

### b. **Partnership**

*Refers to a group of individuals who agree to contract and to carry out a business with the objective of profit making. All shareholders or anyone could manage the business for all parties. A trading partnership must comprise of at least two (2) members and should not exceed a maximum twenty members.*

**c. Limited liabilities partnership**

Refers to business entity regulated under the Limited Liability Partnerships Act 2012. It is featured with the protection of limited liability to its partners similar to the limited liability enjoyed by shareholders of a company. It is coupled with flexibility of internal business regulation through partnership arrangement similar to a conventional partnership.

**d. Private limited company**

A private company established to undertake a business with the objective of making a profit. The shares are closely held by the shareholders of the company who have control over its operation.

Characteristics:

- i. Regulated under the Companies Act 1965 and is a legal entity separate from the owners;
- ii. Number of its shareholders between 2 - 50 members;
- iii. Company owners have limited liability;
- iv. Shareholders who own 51 per cent or more of the total shares shall be entitled to manage the company. The company's shares can be traded but not in the open market;
- v. Trading of share must be with the consent of the other shareholders;
- vi. Not listed on the Stock Exchange; and
- vii. Business life expectancy is longer and can be identified by the words "Sendirian Berhad" (Sdn. Bhd.) at the end of the company name.

**e. Public limited company**

A public limited company is a company established with limited liability, by a minimum of two persons to operate the business with the objective of making a profit. The shares in a public limited company are openly held and in the case of company listed on the Bursa Malaysia, the shares are freely transferable;

Characteristics:

- i. Regulated under the Companies Act 1965 and is a legal entity separate from the owner;
- ii. Owned by the shareholders and there is no limit to the shareholder;
- iii. Management of the company is under the board of director responsibilities as appointed by shareholders; and
- iv. Listed on Bursa Malaysia.

**f. Co-operative**

*Refers to a voluntary association with unrestricted number of members and registered under the Co-operatives Act 1993. Funds are collectively owned to meet the needs of members.*

**g. Public corporation**

*Refers an undertaking set up under a Special Act Parliament or by the State Legislature.*

**h. Private non-profit making organization**

*Refers to non-stock company set up with limited liability. It comprises mainly welfare, religious, educational, health, cultural, recreational and other organisations providing social and community services to households. These services are provided free of charge or at prices, which do not necessarily or fully cover the cost of providing such services (subsidy). Any profit made is reinvested in the organisation.*

## 9.2 OWNERSHIP

*The ownership of an establishment is classified by the residential status of the owner(s) of the majority (more than 50%) of the paid-up capital and not by their citizenship status. In instances where each party (Malaysian Resident and Non-Malaysian Resident) held equal shares in the business, the establishments were classified as "Joint Ownership".*

*A Malaysian Resident is any individual, company or other organization ordinarily domiciled in Malaysia for a period of at least one (1) year. Malaysian registered branches and incorporated subsidiaries of foreign based/origins are also regarded as Residents.*

*A Non-Malaysian Resident is any individual, company or other organization ordinarily domiciled in a country other than Malaysia. Foreign branches and/or subsidiaries abroad owned by Malaysian Residents are also regarded as Non-Residents.*

## 9.3 WOMEN-OWNED ESTABLISHMENTS

*Refers to a minimum of 51 per cent of the equity held by woman or women or the biggest shareholders are women and the establishment is managed by a woman or the Chief Executive Officer or Managing Director is a woman that owns at least 10 per cent of the equity.*

#### 9.4 VALUE OF GROSS OUTPUT

The gross output value of the **Electricity, gas, steam and air conditioning supply sub-sector** is defined by including the following:

- + Sales from own generation / distribution / production
- + Fees received for processing of goods for other establishments' on their materials
- + Income from repairs and maintenance work for other establishments machinery and equipment
- + Values of sales (from goods / material purchases for resale without further processing)
- + Value of other industrial work done (e.g. Constuction, Quarry etc.)
- + Income from other output n.e.c. (e.g. scrap, electricity, waste product etc.)
- + Professional fees received (e.g. accounting, management, engineering, legal services, research and development etc.)
- + Commissions and brokerage earned
- + Rental income received from: others
- + Royalties, copyrights, licensing and franchise fees
- + Others operating income
- + Built / self-produced: total
- + Closing stocks goods in process
- Opening stocks goods in process
- + Closing stocks goods of finished goods (own manufactured)
- Opening stocks goods of finished goods (own manufactured)
- + Closing stocks goods purchased for resale (trading stocks)
- Opening stocks goods purchased for resale (trading stocks)
- + Closing stocks other stocks
- Opening stocks other stocks
- Cost of goods sold (goods / materials purchased for resale without undergoing further processing)
- + Research and development expenditure: in-house

#### 9.5 VALUE OF INTERMEDIATE INPUT

The intermediate input value of **Electricity, gas, steam and air conditioning supply sub-sector** is defined by including the following elements:

Value of raw materials and supplies used

- + Cost of raw materials / components / parts used
- + Packing materials and containers
- + Materials used for repairs and maintenance
- + Factory requisites (e.g. tools and consumables)
- + Stationery and office supplies
- + Water purchased
- + Electricity purchased
- + Fuels, lubricants, and gas
- + Payments for processing work done by others on materials supplied by this establishments
- + Payments for current repairs and maintenance work done by others on this establishment's fixed assets



- + *Transportation of goods (carriage outwards)*
- + *Travelling expenses (include both local and overseas travelling, petrol/diesel bills and parking fees for own vehicles)*
- + *Accounting, secretarial and audit fees*
- + *Legal fees*
- + *Management fees*
- + *Entertainment expenses*
- + *Postage (includes courier expenses)*
- + *Bank charges*
- + *Insurance premium on building, machinery, transport equipment and goods*
- + *Commissions and agency fees*
- + *Advertising and promotion*
- + *Payment for other professional services (e.g. architectural, engineering, surveying consultancy fees etc.)*
- + *Payment for data processing and other services related to information technology*
- + *Telecommunication fees (e.g. telephone, internet etc.)*
- + *Other payments for non-industrial services*
- + *Rental payments: Operational lease (exclude payment for rent of land) and others*
- + *Royalties paid to: non-government organisations / corporate sponsorship*
- + *Others operating expenditure*
- + *Fees paid to non-working directors for their attendance at Board of Directors' meetings*
- + *Value of free wearing apparel provided*
- + *Staff training cost*
- + *Payment to other establishment for providing workers*
- + *Payment for security services*
- + *Opening stocks: Raw materials, fuels, supplies and packaging materials*
- *Closing stocks: Raw materials, fuels, supplies and packaging materials*

## 9.6 **VALUE ADDED**

Value added is the difference between gross output and intermediate input. It is approximately equivalent to commercial profit, salaries and wages, depreciation and indirect taxes; plus, interest paid less interest received.

## 9.7 **NUMBER OF PERSONS ENGAGED**

Number of persons engaged refers to all persons engaged during December or the last pay period of the reference year. The number of persons engaged was classified under the following categories:

### 9.7.1 **Working proprietors and active business partners**

#### i. **Working proprietors and active business partners**

This category refers to all individual proprietors and partners, part time or full time, who are actively engaged in the work of the establishment. Therefore, it excludes silent and inactive partners.

#### ii. **Unpaid family workers**

This category encompasses all persons (full-time or part-time) in the household of the owners of the establishment who perform a specified job and work for a minimum of one third of the normal working time of the establishment, but do not receive regular payment either in cash or in kind for the work done. Such workers generally receive food, shelter and other support as part of the household of an owner and this would continue whether they worked in the establishment or not.

### 9.7.2 **Paid employees (full-time)**

Refers to all paid workers (full-time) who work for at least six hours a day and/or 20 days a month. Paid employees (full-time) are to be categorised according to Malaysia Standard Classification of Occupations 2020 (MASCO) as follows:

#### i. **Manager, professional and researcher included:**

##### a. **Manager**

Refer to those who devise, analyse, formulate, direct and advise on government policy, and make, amend and repeal laws, public rules and regulations, and represent and act on behalf of the government, and oversee the interpretation and implementation of policies and government legislation, or carry out similar tasks on behalf of special interest organisations, or plan, organise, lead, control and coordinate the policies and activities of enterprises, organisations, departments or the internal section; and



**b. Professional**

*Refer to those responsible for increase the existing stock of knowledge, apply scientific or artistic concepts and theories, teach about the foregoing in a systematic manner, or engage in any combination of these three activities.*

**ii. Technicians and associate professionals**

*Refers to those who perform technical and related tasks connected with research and the application of scientific or artistic concepts and operational methods, and government or business regulations.*

**iii. Clerical, services & sales workers, craft workers, plant & machine operators and related occupations includes:**

**a. Clerical support workers**

*Refers to those who record, organise, store and retrieve related information and perform clerical duties especially in connection with administrative operations, handling of money, travel arrangements and requests for information and appointments;*

**b. Service and sales workers**

*Refers to those who provide personal services related to travel, housekeeping, catering, personal care, or protection against fire and unlawful acts, or demonstrate and sell goods in wholesale or retail shops and similar establishments as well as at stalls and markets;*

**c. Craft and related trades workers**

*Refers to those who apply their specific knowledge and skills in the fields of mining and construction, metal forming, and erect metal structures, make, fit, maintain and repair machinery, equipment or tools, carry out printing work as well as produce or process foodstuffs, textiles, or wooden, metal and other articles including handicraft goods; and*

**d. Plant & machine operators and assemblers**

*Refers to those who operate and monitor industrial and agricultural machinery and equipment, drive and operate trains, motor vehicles and mobile machinery and equipment, or assemble product component parts according to strict specifications and procedures.*

**iv. Elementary occupations**

*Refer to those who perform simple, routine and non-systematic tasks which mainly require the use of handheld tools or with the assistance of simple machines, and in some cases considerable physical effort.*

**9.7.3 Paid employees (part-time)**

*Refers to all paid workers who work less than six hours a day and/or less than 20 days a month.*

**9.8 CATEGORY OF SKILLS**

*Category of skills have been classified according to Malaysia Standard Classification of Occupation (MASCO) 2020 as follows:*

**9.8.1 Skilled**

*Managers, professionals and researchers, and Technicians and associate professionals;*

**9.8.2 Semi-skilled**

*Clerical support workers, Service & sales workers, Craft & related trades workers and Plant & machine operators and assemblers; and*

**9.8.3 Low-skilled**

*Elementary occupations.*

**9.9 SALARIES & WAGES**

*All payments (salaries, wages, bonuses, commissions, overtime pay and cash allowances including cost of living, housing, car, food, etc.) made throughout the reference year to all paid employees in each category. For all directly employed workers, total payments made before deductions for income tax and employees' contributions to Employees' Provident Fund (EPF)/ Social Security Organisation (SOCSO)/ Other provident/ Retirement Funds Incorporated (KWAP). The Employer's contribution to such funds as mentioned above should be excluded.*

**9.10 VALUE OF FIXED ASSETS**

*Fixed assets cover all goods, new or used, tangible or intangible, which have a normal economics life span of more than one year. For instance land, building and structure, transport equipment, computer, other machinery & equipment, furniture & fittings, mineral exploration and other assets. Other assets also include biological assets namely trees/crops (except for logging trees that intended for logging), livestock and aquaculture fisheries which can produce products repeatedly and have a life expectancy of more than one year.*

*Value of assets as at the beginning and end of 2022 was based on net book value. Purchases alterations and major repairs or capital expenditure during the year were valued at actual cost incurred. Value of assets sold during the year refers to the actual value.*

## 10. ROUNDING

The sum of components may not add up to the total in the tables presented in this publication due to rounding.

## 11. COMPOUND ANNUAL GROWTH RATE (CAGR)

The calculation of compound annual growth rate ( $r$ ) is based on the following formula:

$$y^t = y_0 (1+r)^t$$

where,

$$r = \left[ e^{\frac{1}{t} \ln\left(\frac{y^t}{y_0}\right)} - 1 \right] \times 100$$

where,

- $y^t$  = Value of current year
- $y_0$  = Value of previous year
- $t$  = Number of years,  $y^t - y_0$
- $r$  = Annual growth rate

## 12. SYMBOLS AND ABBREVIATIONS

|       |   |                             |
|-------|---|-----------------------------|
| -     | : | no information              |
| &     | : | and                         |
| %     | : | per cent                    |
| }     | : | combine                     |
| 0     | : | less than 500               |
| 0.0   | : | less than 0.05 million      |
| b     | : | billion                     |
| CAGR  | : | compound annual growth rate |
| etc.  | : | ec cetera                   |
| n.a   | : | not applicable              |
| RM    | : | Malaysian Ringgit           |
| n.e.c | : | not elsewhere classified    |
| W.P.  | : | Federal Territory           |

**Piawaian Klasifikasi Industri Malaysia, 2008 Ver. 1.0**  
*Malaysia Standard Industrial Classification, 2008 Ver. 1.0*

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**MSIC 2008 dan keterangan**  
*MSIC 2008 and description*

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- |              |                                                                                                                                                                                                                                                                                                                                                                        |
|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>351</b>   | <p><b>PENJANAAN, PENGHANTARAN DAN PENGAGIHAN TENAGA ELEKTRIK</b><br/> <i>ELECTRIC POWER GENERATION, TRANSMISSION AND DISTRIBUTION</i></p>                                                                                                                                                                                                                              |
| <b>35101</b> | <p><b>Operasi kemudahan penjaan yang menghasilkan tenaga elektrik</b><br/> <i>Operation of generation facilities that produce electric energy</i></p>                                                                                                                                                                                                                  |
| <b>35102</b> | <p><b>Operasi penghantaran, pengagihan dan penjualan elektrik</b><br/> <i>Operation of transmission, distribution and sales of electricity</i></p>                                                                                                                                                                                                                     |
| <b>352</b>   | <p><b>PEMBUATAN GAS; PENGAGIHAN BAHAN API BERUNSUR GAS MELALUI SALURAN UTAMA</b><br/> <i>MANUFACTURE OF GAS; DISTRIBUTION OF GASEOUS FUELS THROUGH MAINS</i></p>                                                                                                                                                                                                       |
| <b>35201</b> | <p><b>Pembuatan bahan api berunsur gas yang mempunyai spesifikasi nilai <i>calorific</i> mengikut penulenan, pencampuran dan proses lain dari jenis gas yang lain termasuk gas asli</b><br/> <i>Manufacture of gaseous fuels with a specified calorific value, by purification, blending and other processes from gases of various types including natural gas</i></p> |
| <b>35202</b> | <p><b>Pengangkutan, pengagihan dan bekalan semua jenis bahan api berunsur gas melalui sistem saluran utama</b><br/> <i>Transportation, distribution and supply of gaseous fuels of all kinds through a system of mains</i></p>                                                                                                                                         |
| <b>35203</b> | <p><b>Penjualan gas kepada pengguna melalui saluran utama</b><br/> <i>Sale of gas to the user through mains</i></p>                                                                                                                                                                                                                                                    |
| <b>353</b>   | <p><b>BEKALAN WAP DAN PENDINGIN UDARA</b><br/> <i>STEAM AND AIR CONDITIONING SUPPLY</i></p>                                                                                                                                                                                                                                                                            |
| <b>35301</b> | <p><b>Pengeluaran, pengumpulan dan pengagihan wap dan air panas untuk pemanasan, tenaga dan tujuan lain</b><br/> <i>Production, collection and distribution of steam and hot water for heating, power and other purposes</i></p>                                                                                                                                       |
| <b>35302</b> | <p><b>Pengeluaran dan pengagih udara dingin, air yang disejukkan bagi tujuan pendinginan</b><br/> <i>Production and distribution of cooled air, chilled water for cooling purposes</i></p>                                                                                                                                                                             |
| <b>35303</b> | <p><b>Pengeluaran ais, termasuk ais untuk tujuan makanan dan bukan makanan (cth. Pendinginan)</b><br/> <i>Production of ice, including ice for food and non-food (e.g. cooling) purposes</i></p>                                                                                                                                                                       |

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