

# PRIORITISING SAFETY

LAPORAN TAHUNAN 2022  
ANNUAL REPORT 2022





# MENGUTAMAKAN KESELAMATAN

## PRIORITISING SAFETY

Mengutamakan Keselamatan ialah tajuk muka depan dan ia menekankan bagaimana Suruhanjaya Tenaga (Suruhanjaya Tenaga) menganggap keselamatan sebagai isu kritikal.

Pada penutupnya terdapat topi keledar yang melambangkan keselamatan. Di dalam topi keledar, terdapat ilustrasi pasangan dan mereka mewakili rakyat Malaysia secara amnya. Selain itu, terdapat ilustrasi pokok yang menonjolkan pertumbuhan dan kemampanan. Secara keseluruhan, penutupnya menampilkan konsep kukuh yang menekankan keselamatan untuk semua.

Bermaklumat dan menarik, reka bentuk muka depan mempamerkan piawaian keselamatan unggul yang dipromosikan oleh Suruhanjaya Tenaga dengan cara yang menarik.

*Prioritising Safety is the cover headline and it emphasises how the Energy Commission (Suruhanjaya Tenaga) considers safety to be a critical issue.*

*On the cover, there is helmet which symbolises safety. Within the helmet, there is an illustration of a couple and they represent Malaysians in general. In addition, there is an illustration of a tree which highlights growth and sustainability. Overall, the cover features a strong concept that emphasizes safety for all.*

*Informative and interesting, the cover design showcases the superior safety standards that are promoted by the Energy Commission in a fascinating manner.*



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## LAPORAN KETUA PEGAWAI EKSEKUTIF CHIEF EXECUTIVE OFFICER'S REPORT

# 23,181,850.62 mmBTU

jumlah penggunaan gas asli di Semenanjung  
*total consumption of natural gas in the Peninsula*

# 125,032 GWh

Jumlah tenaga elektrik di Semenanjung  
*Total electricity generated in the Peninsula*

# 25,257 MW

jumlah keseluruhan kapasiti loji jana kuasa terpasang  
*total power plants installed capacity*

**ST selaku barisan hadapan essential service sektor tenaga dalam memastikan keberterusan, keselamatan dan kecekapan bekalan elektrik dan gas berpaip melalui instrumen kawal selia yang strategik dan mantap.**  
*the Commission to safeguard the reliability, security and efficiency of electricity and piped gas supply through strategic and robust regulatory instruments.*

### ASSALAMUALAIKUM W.B.T. DAN SALAM SEJAHTERA

Terlebih dahulu, bagi pihak pengurusan dan warga kerja Suruhanjaya Tenaga, izinkan saya mengambil kesempatan ini untuk mengalu-alukan pelantikan YBhg. Dato' Azian bin Osman sebagai Pengerusi Suruhanjaya Tenaga berkuatkuasa mulai 8 Mei 2020. Kami yakin bahawa dengan pengalaman yang begitu luas sebagai Pengerusi dan ahli lembaga dari pelbagai latar belakang agensi Kerajaan dan perbadanan lain, YBhg. Dato' Azian akan dapat memimpin ST dan sektor tenaga negara untuk mencapai tahap prestasi yang lebih cemerlang.

Tahun 2020 merupakan tahun yang amat mencabar terhadap semua industri di seluruh dunia, apabila dikejutkan dengan penularan pandemik Covid-19, di mana sektor tenaga di Malaysia juga adalah tidak terkecuali daripada terkesan dari penularan pandemik tersebut. Impak penularan pandemik ini menuntut lebih komitmen dan tindak balas yang cekap daripada ST selaku barisan hadapan essential service sektor tenaga dalam memastikan keberterusan, keselamatan dan kecekapan bekalan elektrik dan gas berpaip melalui instrumen kawal selia yang strategik dan mantap.

First and foremost, allow me to take this opportunity on behalf of the management and the employees of the Commission to welcome YBhg. Dato' Azian bin Osman as Chairman of the Energy Commission effective 8 May 2020. We are confident that with his vast experience serving as Chairman and Board Member in various Government agencies and bodies, YBhg. Dato' Azian will lead the Commission and the country's energy sector to greater heights.

The year 2020 was a challenging one indeed as the outbreak of the Covid-19 crisis sent shockwaves through industries across the globe, and the energy sector in Malaysia is no exception. The impact of the pandemic calls for stronger commitment and prompt response from the Commission to safeguard the reliability, security and efficiency of electricity and piped gas supply through strategic and robust regulatory instruments.

**ABDUL RAZIB DAWOOD**  
Ketua Pegawai Eksekutif Suruhanjaya Tenaga  
Chief Executive Officer of the Energy Commission



### Memastikan Daya Harap Bekalan Tenaga dan Kualiti Perkhidmatan Industri

Pada 2020, permintaan dan pembekalan tenaga elektrik dan gas berpaip telah menurun lantaran impak penutupan sektor ekonomi akibat penguatkuasaan Perintah Kawalan Pergerakan (PKP) yang dikuatkuasakan di seluruh negara. Jumlah tenaga elektrik di Semenanjung telah menurun kepada 125,032 GWj berbanding 130,009 GWj pada 2019. Permintaan puncak pada 2020 adalah 18,808 MW seperti yang direkodkan pada 10 Mac 2020, iaitu peningkatan sebanyak 1.3% berbanding tahun sebelumnya. Walau bagaimanapun, bacaan permintaan puncak telah beransur menjadi lebih rendah sehingga akhir 2020 setelah bermulanya PKP pada 18 Mac 2020.

Tahun 2020 menyaksikan penamatan operasi beberapa loji jana kuasa yang mengurangkan jumlah kapasiti terpasang sebanyak 1,013 MW, penambahan kapasiti berjumlah 498.47 MW pada sistem grid daripada sambungtara Lao PDR-Thailand-Malaysia (LTM, 300 MW), serta penjana pemasangan baharu iaitu daripada projek Solar Berskala Besar (LSS, 198.47 MW). Tiga (3) faktor ini telah menyumbang kepada jumlah keseluruhan kapasiti terpasang di Semenanjung pada 2020 yang mencatatkan penurunan kepada 25,257 MW berbanding 26,132 MW pada 2019. Secara tidak langsung, margin rizab sedia ada pada tahap 38% juga menurun kepada 32% pada 2020. Penjana berasaskan arang batu dan gas masing-masing mencatatkan 65% dan 29.8%, dengan hidro dan lain-lain masing-masing sebanyak 4.4% dan 0.8%.

### Ensuring Reliability of Energy Supply and Industry Service Quality

In 2020, the demand and supply of electricity and piped gas declined due to the closure of economic sectors following the nationwide enforcement of the Movement Control Order (MCO). Total electricity generated in the Peninsula decreased to 125,032 GWh compared to 130,009 GWh in 2019. Peak demand in 2020 increased by 1.3% to 18,808 MW as recorded on 10 March 2020, however gradually declined after the implementation of MCO on 18 March 2020.

In 2020, 498.47 MW was added to the Peninsula's grid system comprising 300 MW from the Lao PDR-Thailand-Malaysia (LTM) interconnection and 198.47 MW from new Large Scale Solar (LSS) project installations. However, the decommissioning of several power plants with total installed capacity of 1,013 MW resulted in total installed capacity in the Peninsula decreasing from 26,132 MW to 25,257 MW. The existing reserve margin also decreased from 38% to 32% in 2020. Coal and gas accounted for 65% and 29.8% of total capacity respectively, followed by hydro (4.4%) and other fuels (0.8%).

## LAPORAN KETUA PEGAWAI EKSEKUTIF CHIEF EXECUTIVE OFFICER'S REPORT

**ST selaku barisan hadapan essential service sektor tenaga dalam memastikan keberterusan, keselamatan dan kecekapan bekalan elektrik dan gas berpaip melalui instrumen kawal selia yang strategik dan mantap.**

*the Commission to safeguard the reliability, security and efficiency of electricity and piped gas supply through strategic and robust regulatory instruments.*

Walaupun permintaan elektrik merekodkan penurunan, ketersediaan bekalan bahan api dan penjanaan yang stabil masih perlu diteruskan. Bagi tujuan tersebut, ST telah melaksanakan beberapa inisiatif dalam menghadapi keadaan semasa ini, termasuk mewujudkan platform pelaporan operasi secara harian oleh pihak Grid System Operator, Single Buyer, Petronas Energy & Gas Trading dan Petronas Gas Control Centre dalam memantau kestabilan grid elektrik, sistem penghantaran gas dan status simpanan bahan api.

Di Sabah, sejumlah 6,391.5 GWj tenaga elektrik telah dijana, iaitu penurunan sebanyak 3.6% berbanding 2019. Permintaan maksimum juga telah menurun sebanyak 1.4% berbanding 2019, daripada 1,001 MW kepada 987 MW pada 2020. Jumlah kapasiti boleh harap di Sabah adalah sebanyak 1,171 MW berbanding 1,277 MW pada 2019. Berdasarkan kapasiti boleh harap ini, margin rizab yang telah direkodkan adalah pada tahap 19%, iaitu di bawah paras optimum 30%, lanjutan prestasi yang kurang baik oleh stesen-stesen jana kuasa sedia ada dan kekangan kapasiti penjanaan daripada projek-projek yang mengalami kelewatan selain kesan pelaksanaan PKP dan PKPB di seluruh Sabah. Trend campuran penjanaan di Sabah tidak banyak berubah di mana gas asli dan diesel masing-masing kekal pada paras 86% dan 5%, campuran hidro naik ke 6% dan campuran lain turun ke paras 3%.

Dari segi prestasi daya harap sistem, System Average Interruption Duration Index (SAIDI) bagi sistem pembekalan elektrik di Semenanjung telah menunjukkan perkembangan positif dengan catatan SAIDI sebanyak 44.95 minit/pelanggan/ tahun pada 2020 berbanding 48.13 minit/ pelanggan/tahun pada 2019. Catatan ini kekal di bawah sasaran 55 minit/pelanggan/tahun yang ditetapkan. Prestasi ini adalah turut setanding dengan negara-negara maju lain seperti Australia dan United Kingdom. Bagi Sabah, SAIDI terkumpul pada 2020 secara keseluruhannya telah menurun pada 189.44 minit/pelanggan/tahun berbanding 205.31 minit/ pelanggan/tahun pada 2019.

Despite the decline in electricity demand, the stable availability of fuel supply and generation remains pivotal. A number of initiatives were implemented by the Commission which include establishing a daily operations reporting platform for the Grid System Operator, Single Buyer, Petronas Energy & Gas Trading and Petronas Gas Control Centre to assist in monitoring the stability of the electricity grid, gas transmission system and fuel storage.

Meanwhile, the total electricity generated in Sabah decreased by 3.6% to 6,391.5 GWh in comparison to 2019. Peak demand also decreased by 1.4%, from 1,001 MW in 2019 to 987 MW in 2020. Total dependable capacity in Sabah was recorded at 1,171 MW compared to 1,277 MW in 2019 with a reserve margin of 19%, which was below the optimum level of 30%. This was due to the unsatisfactory performance of existing power stations, delays in generation projects and the implementation of MCO and CMCO throughout Sabah. There were no significant changes in the generation mix in the state, with natural gas and diesel accounting for 86% and 5% of total generation respectively, while hydro increased to 6% and generation by other fuels dropped to 3%.

The System Average Interruption Duration Index (SAIDI) performance of the electricity supply system in the Peninsula improved to 44.95 minutes/customer/year in 2020 compared to 48.13 minutes/customer/year in 2019 and remained well below the 55 minutes/customer/year target. This performance is also on par with other developed countries such as Australia and the United Kingdom. In Sabah, the combined SAIDI in 2020 also declined to 189.44 minutes/ customer/year compared to 205.31 minutes/customer/year in 2019. Despite this noteworthy achievement, Sabah has yet to reach the SAIDI target of 150 minutes/customer/year.

The SAIDI performance in the Peninsula was the result of continuous maintenance of the grid system quality.



Namun, pengurangan signifikan tersebut masih belum mencapai sasaran yang telah ditetapkan iaitu pada 150 minit/pelanggan /tahun.

Penurunan SAIDI di Semenanjung adalah hasil usaha bersama memastikan sistem grid sentiasa berada dalam keadaan yang mantap.

Walau bagaimanapun, bagi menangani isu daya harap bekalan elektrik di Sabah, inisiatif di peringkat pengagihan perlu dipergiatkan memandangkan ianya menyumbang sebanyak 97.7% kepada SAIDI keseluruhan di Sabah pada 2020.

Dari aspek kualiti kuasa di Semenanjung, sebanyak 678 kejadian junaman voltan direkodkan pada 2020 oleh Power Quality Management System (PQMS) Tenaga Nasional Berhad (TNB), manakala dari segi kualiti perkhidmatan pemegang lesen, pemantauan ST mendapati bahawa pematuhan terhadap Tahap Perkhidmatan yang Dijamin (GSL) pada 2020 telah menunjukkan peningkatan kepada 99.61%, dan Tahap Perkhidmatan Minimum (MSL) sebanyak 95.96%. Pada 2020, skor Kajian Indeks Kepuasan Pelanggan TNB telah mencatatkan 8.6 mata, iaitu melebihi markah tanda aras bagi beberapa syarikat utiliti global yang lain. ST akan terus

mempertingkatkan usaha promosi dan libat urus bersama pengguna bagi meningkatkan lagi kualiti perkhidmatan TNB pada masa akan datang.

Bagi gas asli pula, jumlah penggunaan gas asli di Semenanjung oleh Petronas Energy and Gas Trading Sdn. Bhd, adalah sebanyak 723,181,850.62 mmBTU, manakala jumlah penggunaan gas yang dibekalkan oleh Gas Malaysia Energy and Services Sdn. Bhd. adalah sebanyak 199,853,557 mmBTU. Penggunaan gas asli di Sabah dan Labuan merekodkan bacaan sebanyak 672,850.77 mmBTU yang dibekalkan oleh Sabah Energy Corporation Sdn. Bhd.

Pencapaian SAIDI bagi bekalan gas berpaip untuk sektor bukan tenaga di Semenanjung oleh Gas Malaysia Distribution (GMD) adalah tinggi iaitu 5.775 minit/pelanggan/tahun akibat kerja-kerja penyenggaraan yang telah dijalankan pada tahun itu. Bacaan ini telah melebihi sasaran yang ditetapkan iaitu 3.4505 minit/pelanggan/tahun.

To address the issue of electricity supply reliability in Sabah, initiatives at the distribution level need to be intensified as it accounted for 97.7% of the overall SAIDI in Sabah in 2020.

### **ST mendapati bahawa pematuhan terhadap Tahap Perkhidmatan yang Dijamin (GSL) pada 2020 telah menunjukkan peningkatan kepada 99.61%**

*compliance of the Guaranteed Service Level (GSL) and Minimum Service Level (MSL) increased to 99.61% and 95.96% respectively in 2020.*

In terms of power quality and service delivery in the Peninsula, a total of 678 voltage sag incidents were recorded in 2020 by Tenaga Nasional Berhad's (TNB) Power Quality Management System (PQMS), while compliance of the Guaranteed Service Level (GSL) and Minimum Service Level (MSL) increased to 99.61% and 95.96% respectively in 2020. Meanwhile, the 2020 TNB Customer Satisfaction Index Survey, achieved a score of 8.6 points, surpassing the benchmark score of other global utility companies. The Commission will continue to facilitate consumer engagement and monitor the quality of TNB's services moving forward.

The total consumption of natural gas in the Peninsula stood at 723,181,850.62 mmBTU, supplied by Petronas Energy and Gas Trading Sdn. Bhd. whereas the total gas supplied by Gas Malaysia Energy and Services Sdn. Bhd. amounted to 199,853,557 mmBTU. In Sabah and Labuan, 672,850.77 mmBTU of natural gas consumed was supplied by Sabah Energy Corporation Sdn. Bhd.

Meanwhile, SAIDI for piped gas supplied to the non-energy sector in the Peninsula by Gas Malaysia Distribution (GMD) exceeded the set target of 3.4505 minutes / customer / year at 5.775 minutes / customer / year due to maintenance works carried out throughout the year.

## LAPORAN KETUA PEGAWAI EKSEKUTIF CHIEF EXECUTIVE OFFICER'S REPORT

### Mengutamakan Keselamatan dan Penguatkuasaan

Secara keseluruhannya, prestasi keselamatan elektrik menunjukkan peningkatan dengan catatan kes kemalangan elektrik terendah pada 2020 bagi lima (5) tahun ke belakang iaitu sebanyak 45 kes. Ini menunjukkan pengurangan. Ini menunjukkan pengurangan sebanyak 13.5% berbanding jumlah kes pada tahun sebelumnya. Analisis turut menunjukkan purata kemalangan elektrik yang berlaku bagi tempoh tersebut adalah sebanyak 52 kes setahun. Namun, jumlah kemalangan elektrik maut telah meningkat daripada 15 kes ke 28 kes pada 2020.

Pemasangan dan senggaraan yang tidak sempurna merupakan punca utama kemalangan elektrik pada 2020, diikuti aktiviti kerja orang awam berhampiran dengan pemasangan elektrik dan ketidakpatuhan pada prosedur kerja selamat.

Dalam usaha menangani isu keselamatan, ST telah mengambil tindakan memfailkan pertuduhan di mahkamah terhadap dua (2) syarikat masing-masing atas kesalahan gagal melantik orang kompeten dan menggunakan elektrik secara curang. Selain itu, ST juga telah menggantung satu

(1) Perakuan Kekompetenan selama tiga (3) tahun kerana kesalahan kemalangan elektrik yang menyebabkan maut di Sabah, manakala tiga (3) individu lain juga digantung Perakuan Kekompetenan selama enam (6) bulan dan setahun kerana kesalahan kes kemalangan elektrik tidak maut di Terengganu.

Dari segi pemerakuan tenaga kerja yang kompeten, pada 2020, sebanyak 4,825 Perakuan Kekompetenan Elektrik telah dikeluarkan. Ini merupakan penurunan sebanyak 18.98% berbanding dengan jumlah pada 2019 iaitu sebanyak 5,955. Darpada jumlah tersebut, 91.18% atau 4,399 perakuan telah dikeluarkan melalui institusi bertauliah manakala 8.82% atau 426 perakuan dikeluarkan melalui peperiksaan kendalian ST.

### Prioritising Safety and Enforcement

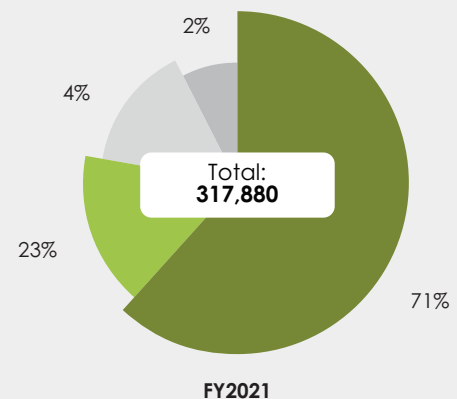
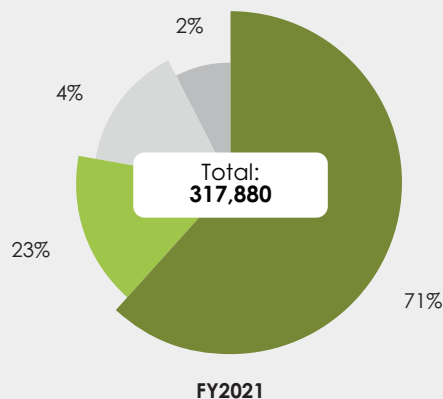
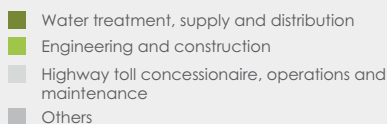
The year also recorded the lowest number of electrical accidents over the past five (5) years with 45 cases. This decrease of 13.5% compared to the number of cases in the previous year reflects an improvement in electrical safety performance. Analysis also showed that the average number of electrical accidents during this period was 52 cases per year. However, the number of fatal electrical accidents increased from 15 cases to 28 cases in 2020.

Improper installation and maintenance were the primary causes of electrical accidents in 2020, followed by public work activities near electrical installations and non-compliance with safe work procedures.

In combating safety-related issues, the Commission filed court charges against two (2) companies respectively for failing to appoint a competent person and for dishonest use of electricity. Furthermore, the Commission also suspended one (1) Certificate of Competency for three (3) years in relation to a fatal electrical accident in Sabah, while the Certificates of Competency of three (3) other individuals were suspended - two (2) for six (6) months and one (1) for a year - in relation to a non-fatal electrical accident case which occurred in Terengganu.

In terms of the certification of competent workforce, the Commission, in 2020, has issued a total of 4,825 Electrical Certificates of Competency. The number of Electrical Certificates of Competency issued decreased by 18.98% from 5,955 certificates in 2019. Out of the total, 91.18% or 4,399 certificates were issued through examinations facilitated by accredited institutions, while 8.82% or 426 certificates were issued through examinations

### Commentary on the Revenue of the Group (RM'000)



# Review of Financial Performance

The following is the summary of the financial performance of the Group for the year ended 31 December 2020 as compared to the previous financial year.

## Financial Results

### Revenue



### Gross Profit



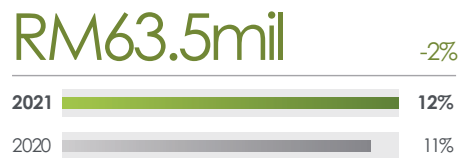
### Operating Profit



### Profit Before Tax



### Profit After Tax



### Total Assets Employed



### Total Shareholders' Equity



## Key Financial Ratio

### Basic And Diluted EPS (Sen)

**2.95 sen**



### Net Asset Per Share (Sen)

**47.59 sen**



### Return on Equity (%)<sup>(a)</sup>

**5.1%**



### Return on Assets Employed (%)<sup>(b)</sup>

**2.9%**



- (a) The Return on Equity is calculated by dividing the profit for the year with the average of the opening and closing balance of Total Shareholders' Equity.  
 (b) The Return on Assets Employed is calculated by dividing the profit for the year with the average of the opening and closing balance of Total Assets Employed.  
 (c) The Net Debt-to-Equity is nil for both years as the Group's cash reserves exceeded the total borrowings as at the end of the respective financial years.

Read more about "Financial information" on **pages 46-52**

Read more about "Non-financial information" on **pages 53-60**

## LAPORAN KETUA PEGAWAI EKSEKUTIF CHIEF EXECUTIVE OFFICER'S REPORT

### Mengutamakan Keselamatan dan Penguatkuasaan

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Dalam usaha menangani isu keselamatan, ST telah mengambil tindakan memfailkan pertuduhan di mahkamah terhadap dua (2) syarikat masing-masing atas kesalahan gagal melantik orang kompeten dan menggunakan elektrik secara curang. Selain itu, ST juga telah menggantung satu (1) Perakuan Kekompetenan selama tiga (3) tahun kerana kesalahan kemalangan elektrik yang menyebabkan maut di Sabah, manakala tiga (3) individu lain juga digantung Perakuan Kekompetenan selama enam (6) bulan dan setahun kerana kesalahan kes kemalangan elektrik tidak maut di Terengganu.

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### Prioritising Safety and Enforcement

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**45 kes**

kes kemalangan elektrik  
*electrical accidents*

**4,825**

Perakuan Kekompetenan Elektrik  
*Electrical Certificates of Competency*

Sehingga 2020, jumlah Perakuan Kekompetenan Elektrik yang telah dikeluarkan oleh ST adalah sebanyak 146,784 perakuan. Sehingga 2020, ST mengawal selia sebanyak 34 kategori kelengkapan elektrik. Dalam memastikan keselamatan kelengkapan elektrik yang dijual di pasaran adalah terjamin, pelaksanaan sistem pemantauan dan penguatkuasaan berimpak tinggi terhadap aktiviti mengilang, mengimport dan menjual kelengkapan telah diberi keutamaan. Sebanyak 172 Perakuan Kelulusan Kelengkapan yang dikeluarkan kepada 83 pengimport telah dibatalkan apabila ujian konsainmen mendapati terdapat kelengkapan yang diimport tidak mematuhi standard seperti yang diluluskan oleh ST.

Seminar Updated e-Commerce Regulations for Electrical Appliances anjuran ST dengan kerjasama Malaysia Digital Economy Corporation (MDEC) telah diadakan bagi menekankan kepentingan untuk hanya mengiklan dan menjual dalam talian kelengkapan elektrik yang mempunyai label keselamatan SIRIMST sahaja. Tindakan penguatkuasaan akan diambil terhadap platform dan penjual dalam talian sekiranya ingkar dengan arahan yang diberikan.

Untuk sektor keselamatan gas berpaip, tiada kemalangan gas direkodkan pada 2020. Saya amat berharap prestasi ini dapat dikekalkan di samping terus berusaha untuk melakukan penambahbaikan dari semasa ke semasa dengan menjalankan sesisesi libat urus bersama agensi-agensi dan Pihak Berkuasa Tempatan (PBT) lain yang berkaitan. Usaha tersebut tampak membuahkan hasil, di mana jumlah kemalangan yang direkodkan dari 2005 sehingga 2020 telah menunjukkan trend penurunan.

Selaras dengan peranan ST untuk mempertingkatkan keselamatan elektrik dan gas berpaip, ST juga telah menerbitkan garis panduan lengkap khusus untuk sistem gas berpaip di premis dobi untuk rujukan semua pengusaha dobi, orang kompeten dan kontraktor gas. Di samping itu, ST juga telah

mengeluarkan sebanyak 36 Perakuan Kekompetenan Gas kepada tiga (3) kategori kelas yang berbeza, iaitu Penyelia Kejuruteraan Gas, Jurugegas Gas Kelas I dan III. Pada keseluruhannya, seramai 1,132 individu telah diberikan Perakuan Kekompetenan Gas sehingga akhir 2020.

Bagi Perakuan Kelulusan Gagasan, Perkakas dan Peralatan Gas pula, sebanyak 1,106 Perakuan Kelulusan telah dikeluarkan yang melibatkan pelbagai jenis dan model peralatan gas. Dibandingkan dengan 2019, terdapat peningkatan sebanyak 15% bagi Perakuan Kelulusan yang telah dikeluarkan, disebabkan terdapat pengimport dapur gas domestik yang masih baharu yang memohon untuk mendapatkan kelulusan ini. Secara umumnya, jumlah Kertas Siasatan yang dibuka pada 2020 telah berkurangan daripada 111 Kertas Siasatan pada 2019 kepada 72 Kertas Siasatan pada 2020. Walau bagaimanapun, kategori lesen menunjukkan kenaikan jumlah yang mendadak di mana terdapat 16 kes lesen pengagihan elektrik yang dikeluarkan sepuluh (10) tahun lalu disiasat disebabkan beroperasi dalam keadaan tempoh lesen yang telah tamat dan tidak sah.

As of 2020, the total number of Electrical Certificates of Competency issued by the Commission stood at 146,784 certificates. To date, there are 34 categories of electrical equipment regulated by the Commission whereby the manufacturing, importation and sale of these equipment are actively monitored to ensure the safety of electrical equipment sold in the market. A total of 172 Certificates of Approval belonging to 83 importers were cancelled in 2020 for failing to comply with the relevant standards as set by the Commission.

The Updated e-Commerce Regulations for Electrical Appliances seminar organised by the Commission in collaboration with the Malaysia Digital Economy Corporation (MDEC) emphasised on the importance of advertising and selling electrical appliances with the SIRIM-ST safety label on online platforms and the repercussions of non-compliance.

The number of accidents recorded in the piped gas sector has been declining from 2005 to 2020 with no gas accidents recorded in 2020. The Commission will continue to conduct engagement sessions with other agencies and relevant Local Authorities to ensure that this achievement can be sustained.

In line with its efforts to enhance electrical and piped gas safety, the Commission has published comprehensive guidelines, specifically for piped gas systems in laundrettes for the reference of all laundrette operators, competent persons and gas contractors.

In addition, the Commission has issued a total of 36 Gas Certificates of Competency to three (3) different categories of classes, namely Gas Engineering Supervisors, Gas Fitters Class I and III. Overall, a total of 1,132 individuals have been granted Gas Certificates of Competency by the end of 2020.

A total of 1,106 Certificates of Approval for Gas Fittings, Appliances and Equipment were issued involving various types

### **ST mendapati bahawa pematuhan terhadap Tahap Perkhidmatan yang Dijamin (GSL) pada 2020 telah menunjukkan peningkatan kepada 99.61%**

*compliance of the Guaranteed Service Level (GSL) and Minimum Service Level (MSL) increased to 99.61% and 95.96% respectively in 2020.*

# 01

## MAKLUMAT KORPORAT *CORPORATE INFORMATION*

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## Enhancing Lives Through Nation-Building

We are a sustainably conscious company that contributes to Malaysia's development and supports communities by providing eco-friendly and innovative energy and environmental solutions. Naturally, we are also making a difference in the lifestyles of Malaysians across the country.

## ANGGOTA SURUHANJAYA TENAGA ENERGY COMMISSION MEMBERS

**DATO' IR. DR. SHAIK  
HUSSEIN MYDIN**  
Dilantik pada 14 Mei 2020  
*Appointed on 14 May 2020*

**ENCIK ABDUL RAZIB  
DAWOOD**  
Ketua Pegawai Eksekutif  
*Chief Executive Officer*

**DATO' AHMAD NAZIM  
ABD RAHMAN**  
Dilantik pada 14 Mei 2020  
*Appointed on 14 May 2020*

**DATUK ADNAN SEMAN @  
ABDULLAH**  
Dilantik pada 14 Mei 2020  
*Appointed on 14 May 2020*



**DATO' AZIAN OSMAN**  
Pengerusi Chairman  
Dilantik pada 8 Mei 2020  
*Appointed on 8 May 2020*

**PUAN NOOR AFIFAH  
ABDUL RAZAK**

**PUAN ANIS RIZANA MOHD ZAINUDIN  
@ MOHD ZAINUDDIN**  
Dilantik pada 5 Disember 2020  
*Appointed on 5 December 2020*

**DATO' DR. ROSLI  
MOHAMED**

**DATUK IR. AHMAD FAUZI HASAN**

Pengerusi *Chairman*

Tamat Perkhidmatan pada 31 Mac 2020  
*Concluded Service on 31 March 2020*

**DR. MOHAMMED SHAHARIN UMAR**

Tamat Perkhidmatan pada 31 Oktober 2020  
*Concluded Service on 31 October 2020*

**PUAN ADLIN ABDUL MAJID**

Tamat Perkhidmatan pada 6 Mei 2020  
*Concluded Service on 6 May 2020*

**DR. ISMAIL SIMON**

Tamat Perkhidmatan pada 3 Jun 2020  
*Concluded Service on 3 June 2020*



**DATUK ANUAR AHMAD**

Tamat Perkhidmatan pada 14 Mac 2020  
*Concluded Service on 14 March 2020*

**DATUK DR. ONG PENG SU**

Tamat Perkhidmatan pada 6 Mei 2020  
*Concluded Service on 6 May 2020*

**DISTINGUISHED PROF.  
DATO' DR. RAJAH RASIAH**

Tamat Perkhidmatan pada 6 Mei 2020  
*Concluded Service on 6 May 2020*

## PENGURUSAN TERTINGGI MANAGEMENT TEAM

- ① **ABDUL RAZIB DAWOOD**  
Ketua Pegawai Eksekuti  
*Chief Executive Officer*
- ② **IR. ABDUL RAHIM IBRAHIM**  
Ketua Pegawai Operasi  
*Chief Operating Officer*
- ③ **KAUTHAR MOHD YUSOF**  
Pengarah Perkhidmatan Korporat  
*Director of Corporate Services*  
Dilantik pada 1 November 2020  
*Appointed on 1 November 2020*
- ④ **MOHD ELMI ANAS**  
Pengarah Penguatkuasaan dan Operasi Kawasan  
*Director of Enforcement and Regional Operations*
- ⑤ **IR. ROSLEE ESMAN**  
Pengarah Operasi Industri  
*Director of Industry Operations*
- ⑥ **IR. MD ZAKUAN IBRAHIM**  
Pengarah Kawal Selia Keselamatan  
*Director of Safety Regulation*
- ⑦ **MARLINDA MOHD ROSLI**  
Pengarah Kawal Selia Ekonomi  
*Director of Economic Regulation*
- ⑧ **HILMI RAMLI**  
Pengarah Perancangan dan Komunikasi Strategik  
*Director of Strategic Planning and Communication*
- ⑨ **NURHAFIZA MOHAMED HASAN**  
Pengarah Perancangan dan Pembangunan Industri  
*Director of Industry Planning and Development*
- ⑩ **SHAHRIKHAZIM SHAARI**  
Pengarah Undang-undang dan Pengurusan Risiko  
*Director of Legal Services and Risk Management*  
Bersara pada 28 Jun 2020  
*Retired on 28 June 2020*
- ⑩ **ASMA AINI MOHD NADZRI**  
Pengarah Perkhidmatan Korporat  
*Director of Corporate Services*  
Bersara pada 22 Julai 2020  
*Retired on 22 July 2020*





# 02

## MEMASTIKAN DAYA HARAP BEKALAN TENAGA DAN KUALITI PERKHIDMATAN INDUSTRI

### *ENSURING RELIABILITY OF ENERGY SUPPLY AND INDUSTRY SERVICE QUALITY*

**04 Prestasi Permintaan DanPembekalan Elektrik**  
Electricity Demand And Supply Performance

**04 Pembekalan Gas Asli**  
Natural Gas Supply

**04 Prestasi Sistem Penghantaran**  
Transmission System Performance

**04 Prestasi Sistem Pengagihan**  
Distribution System Performance

**04 Prestasi Kualiti Kuasa**  
Power Quality Performance

**04 Pematuhan Terhadap Tahap Perkhidmatan Yang Dijamin (Gsl) Dan Tahap Perkhidmatan Minimum (Msl) Bagi Sektor Bekalan Elektrik**  
Compliance Of The Guaranteed Service Levels (Gsl) And Minimum Service Levels (Msl) For The Electricity Supply Sector

**04 Kajian Indeks Kepuasan Pelanggan TNB (CSI TNB)**  
TNB Customer Satisfaction Index (CSI TNB) Survey

#### **Sorotan Utama** *Main Highlights*

**04 Mesyuarat Jawatankuasa Perancangan Dan Pelaksanaan Pembekalan Elektrik Dan Tarif (Jpppet)**  
The Planning And Implementation Committee For Electricity Supply And Tariff (Jpppet) Meeting

**04 Demand Forecasting Committee (Dfc) 2020**



## MENGUTAMAKAN KESELAMATAN DAN PENGUATKUASAAN PRIORITISING SAFETY AND ENFORCEMENT

### PENGURUSAN ADUAN

#### COMPLAINT MANAGEMENT

Pada tahun 2022, ST telah menerima sebanyak 1,019 aduan berbanding dengan 1,523 aduan pada tahun sebelumnya. Pengurangan sebanyak 33% ini adalah kerana pemegang lesen dapat menghantar bil elektrik sebenar sepanjang tahun berbanding dengan tahun sebelumnya yang mana bil terpaksa dikeluarkan secara anggaran berikutan arahan perintah kawalan pergerakan di beberapa daerah yang telah merekodkan jumlah kes COVID-19 yang tinggi.

Daripada jumlah 1,019 aduan yang diterima, sebanyak 935 atau 92.3% aduan telah ditangani pada akhir Disember 2022.

Pada tahun 2022, bulan Oktober mencatatkan bilangan aduan yang tertinggi, iaitu sebanyak 153 aduan, yang kebanyakannya diterima daripada pengguna yang mengadu tentang sistem pendawaian elektrik di rumah yang dibina oleh pemaju yang tidak mengikut standard yang sepatutnya.

Untuk menangani jenis aduan ini, ST telah menjalankan siasatan dan mengarahkan pihak yang terbabit untuk membaiki sistem yang terlibat. Langkah ini dijalankan bagi memastikan keselamatan orang awam.

In 2022, ST received a total of 1,019 complaints compared to 1,523 complaints in the previous year. This reduction of 33% occurred as a result of license holders being able to send actual electricity bills throughout the year as opposed to the previous year where bills had to be issued on an estimate following movement control orders in several districts that have recorded a high number of Covid-19 cases.

Out of the total of 1,019 complaints received, 935 or 92.3% of complaints were dealt with at the end of December 2022.

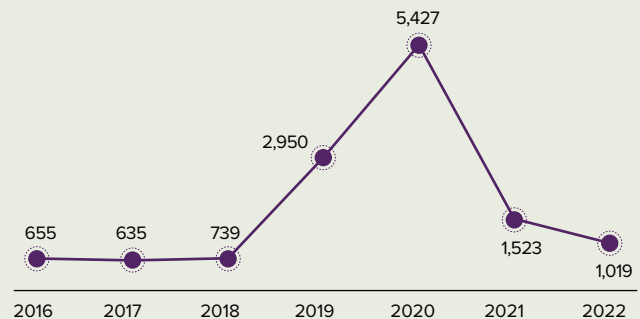
In 2022, the month of October recorded the highest number of complaints with a total of 153 complaints, most of which were received from consumers who complained about home electrical wiring systems that had been built by developers who did not follow the proper standards.

In dealing with such complaints, ST conducted investigations and ordered the relevant parties to repair the systems involved. This step is carried out to ensure the safety of the public.

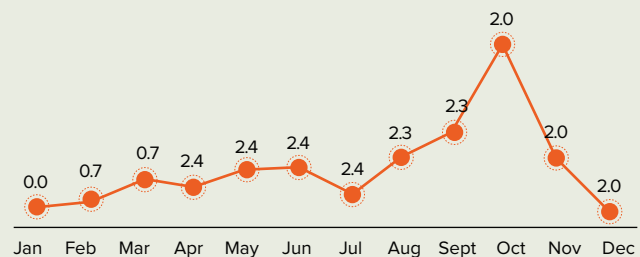
Berikut merupakan statistik bilangan aduan yang diterima dari tahun 2016 hingga tahun 2022:

Here are the statistics on the number of complaints received from 2016 to 2022:

#### Number of Complaints



#### Number of Monthly Complaints (Year 2022)



Untuk menangani jenis aduan ini, ST telah menjalankan siasatan dan mengarahkan pihak yang terbabit untuk membaiki sistem yang terlibat. Langkah ini dijalankan bagi memastikan keselamatan orang awam.

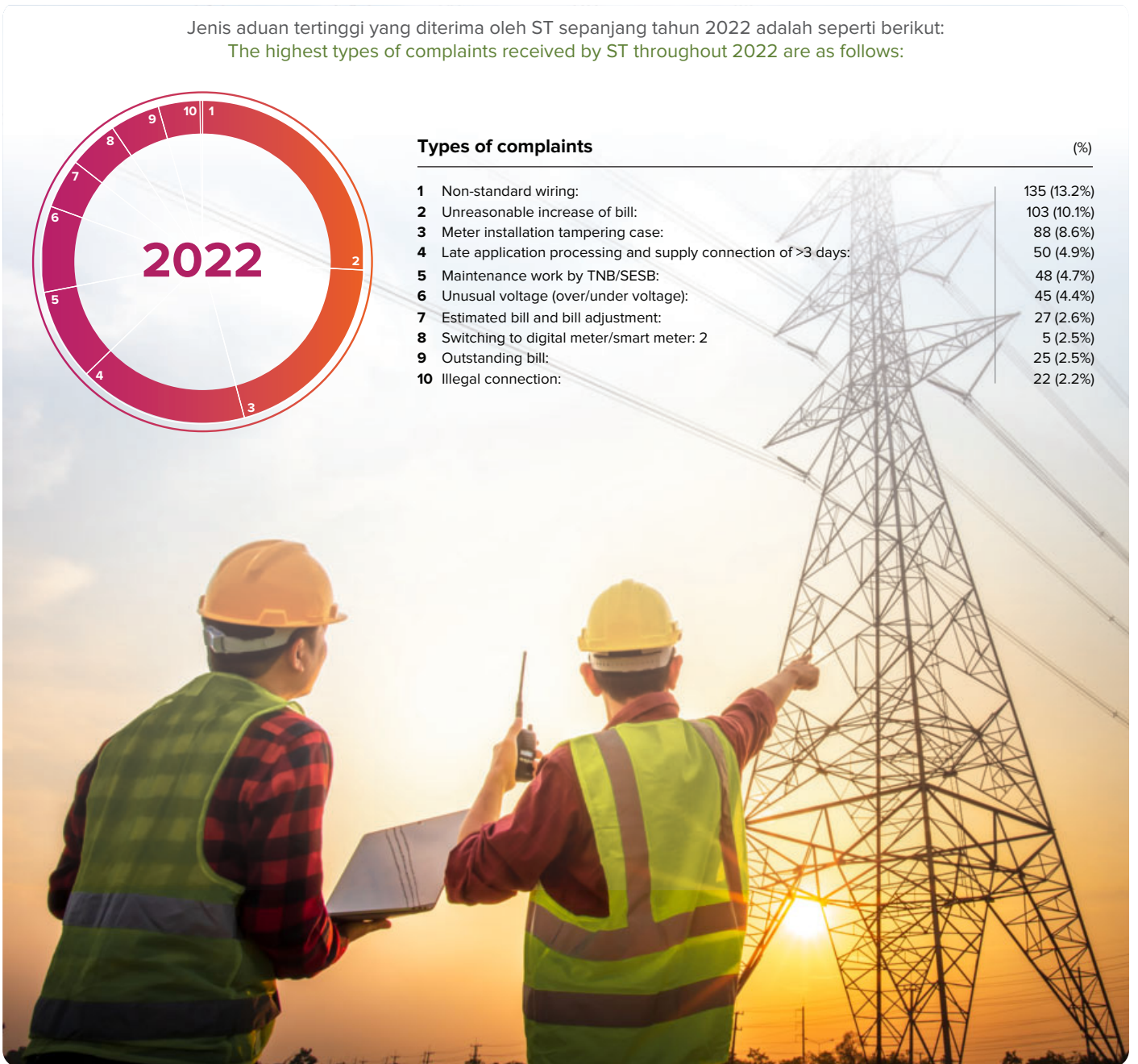
In dealing with such complaints, ST conducted investigations and ordered the relevant parties to repair the systems involved. This step is carried out to ensure the safety of the public.

Jenis aduan tertinggi yang diterima oleh ST sepanjang tahun 2022 adalah seperti berikut:  
The highest types of complaints received by ST throughout 2022 are as follows:



**Types of complaints**

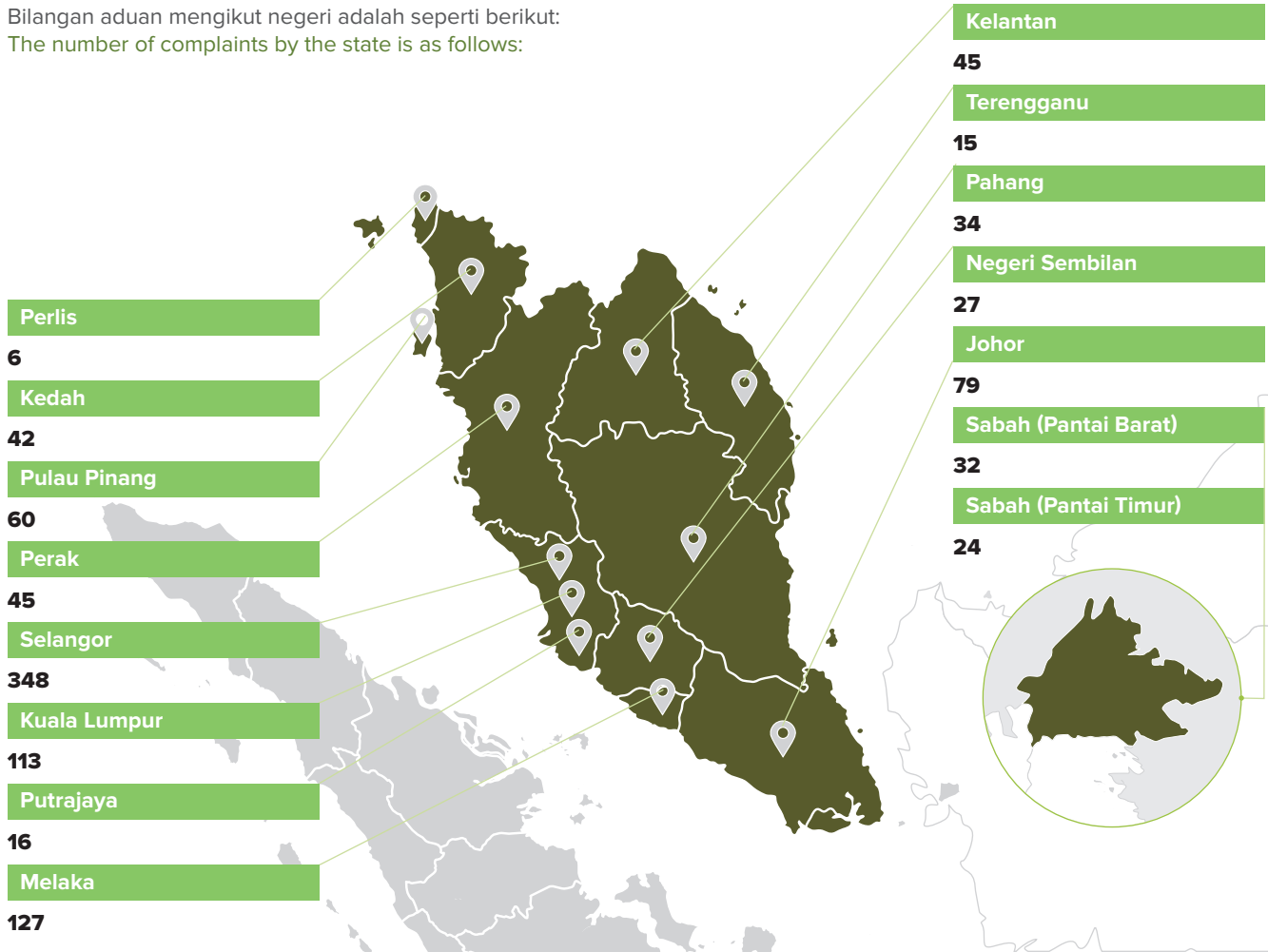
Types of complaints	(%)
1 Non-standard wiring:	135 (13.2%)
2 Unreasonable increase of bill:	103 (10.1%)
3 Meter installation tampering case:	88 (8.6%)
4 Late application processing and supply connection of >3 days:	50 (4.9%)
5 Maintenance work by TNB/SESB:	48 (4.7%)
6 Unusual voltage (over/under voltage):	45 (4.4%)
7 Estimated bill and bill adjustment:	27 (2.6%)
8 Switching to digital meter/smart meter: 2	5 (2.5%)
9 Outstanding bill:	25 (2.5%)
10 Illegal connection:	22 (2.2%)



## MENGUTAMAKAN KESELAMATAN DAN PENGUATKUASAAN

### PRIORITISING SAFETY AND ENFORCEMENT

Bilangan aduan mengikut negeri adalah seperti berikut:  
The number of complaints by the state is as follows:



# 1,013

Jumlah aduan  
Total complaints

Pejabat Kawasan Negeri Selangor, Putrajaya dan Kuala Lumpur menerima jumlah aduan yang tertinggi berbanding dengan lapan Pejabat Kawasan yang lain, iaitu sebanyak 477 aduan; diikuti dengan Pejabat Kawasan Melaka dan Negeri Sembilan pada kedudukan kedua tertinggi dengan 154 aduan; dan Pejabat Kawasan Pulau Pinang, Kedah dan Perlis pada kedudukan ketiga tertinggi dengan 108 aduan. Manakala, pejabat kawasan yang mencatatkan bilangan aduan diterima yang terendah ialah Pejabat Kawasan Sandakan (Pantai Timur Negeri Sabah), iaitu sebanyak 24 aduan.

The Selangor, Putrajaya and Kuala Lumpur State Regional Offices received the highest number of complaints compared to the other eight Regional Offices, which amounted to 477 complaints; followed by the Melaka and Negeri Sembilan Regional Offices in the second highest position with 154 complaints; and Pulau Pinang, Kedah and Perlis Regional Offices in the third highest position with 108 complaints. Meanwhile, the lowest number of complaints received was at the Sandakan Regional Office (East Coast of Sabah), which was 24 complaints.

ST sentiasa komited dalam memastikan aduan yang diterima dapat ditangani dalam tempoh masa yang dijanjikan. Beberapa inisiatif telah diambil dalam penambahbaikan pengurusan aduan, antaranya adalah seperti berikut:

ST is always committed to ensuring that complaints received can be dealt with within the promised period. Several initiatives have been taken to improve complaint management, among them are as follows:

- Mengadakan sesi-sesi perbincangan dengan pemegang lesen, pemaju atau kontraktor yang terlibat bagi menangani dan menyelesaikan aduan pengguna.
  - Mengadakan perbincangan berkala dengan pihak pemegang lesen untuk meningkatkan lagi mutu perkhidmatan kepada pengguna.
  - Mengadakan bengkel pengukuhan pengurusan aduan lazim bersama pegawai-pegawai penyiasat ibu pejabat dan pejabat kawasan agar pengurusan aduan dapat dijalankan dengan lebih cekap dan efisien.
  - Memberikan sesi taklimat tentang ISO pengurusan aduan di pejabat ST Kawasan Negeri Sabah, Kelantan dan Terengganu.
- Held discussion sessions with license holders, developers or contractors involved to address and resolve consumer complaints.
  - Held regular discussions with license holders to further improve the quality of service to consumers.
  - Held workshops to strengthen the management of common complaints with investigative officers from headquarters and regional offices so that complaint management can be conducted more efficiently and effectively.
  - Gave briefing sessions on complaint management ISO in the ST offices in Sabah, Kelantan and Terengganu.

