

# INVESTING FOR THE FUTURE



## 2018 SUSTAINABILITY REPORT

Hengyuan Refining Company Berhad

(No. 3926-U)

## ABOUT THIS REPORT



Hengyuan Refining Company Berhad (HRC or the Company) owns and operates an oil refinery in Port Dickson in the state of Negeri Sembilan. As one of the most established and reliable refiners in Malaysia, we refine crude from Malaysia and all over the world to deliver up to 156,000 barrels of petroleum products each day to customers in Malaysia and within Southeast Asia.

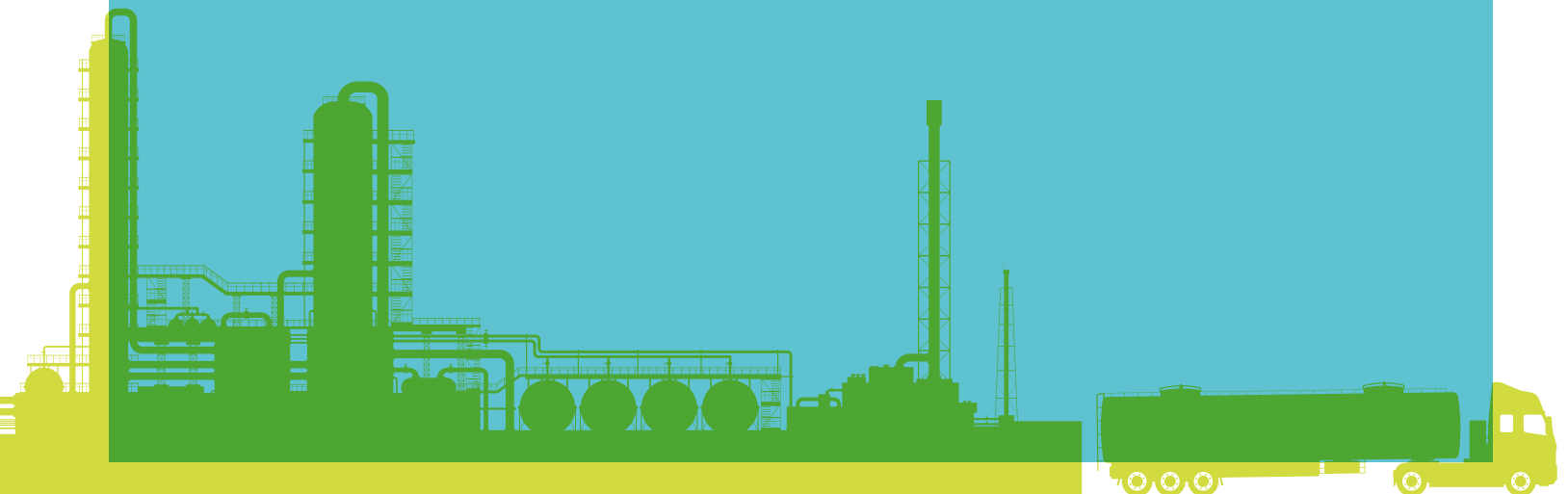
Our comprehensive range of petroleum products includes liquefied petroleum gas (LPG), gasoline, diesel, jet fuel, fuel oil components, sulphur and chemical feedstocks (such as light naphtha and propylene). In 2018, we supplied about 28 per cent of Malaysia's petrol, diesel and LPG needs.

We are conscious of the role our products play in everyday Malaysian life. They include fuel for vehicles, LPG for cooking and precursors to the plastics in consumer products such as smartphones, clothes and light switches.

This is HRC's second sustainability report (Report). It covers the activities of our refining operations at Port Dickson from January to December 2018.

This Report has been prepared in accordance with the Main Market Listing Requirements of Bursa Malaysia Securities Berhad (Bursa) and Bursa's Sustainability Reporting Guide. Our disclosures are also guided by the core principles of the Global Reporting Initiative (GRI) Sustainability Reporting Guidelines, the environmental, social and governance (ESG) factors used by the FTSE4Good Index and the United Nations Sustainable Development Goals (SDGs).

The Report should be read together with HRC's Annual Report 2018 for a comprehensive overview of the Company's overall financial and non-financial performance for the year under review.



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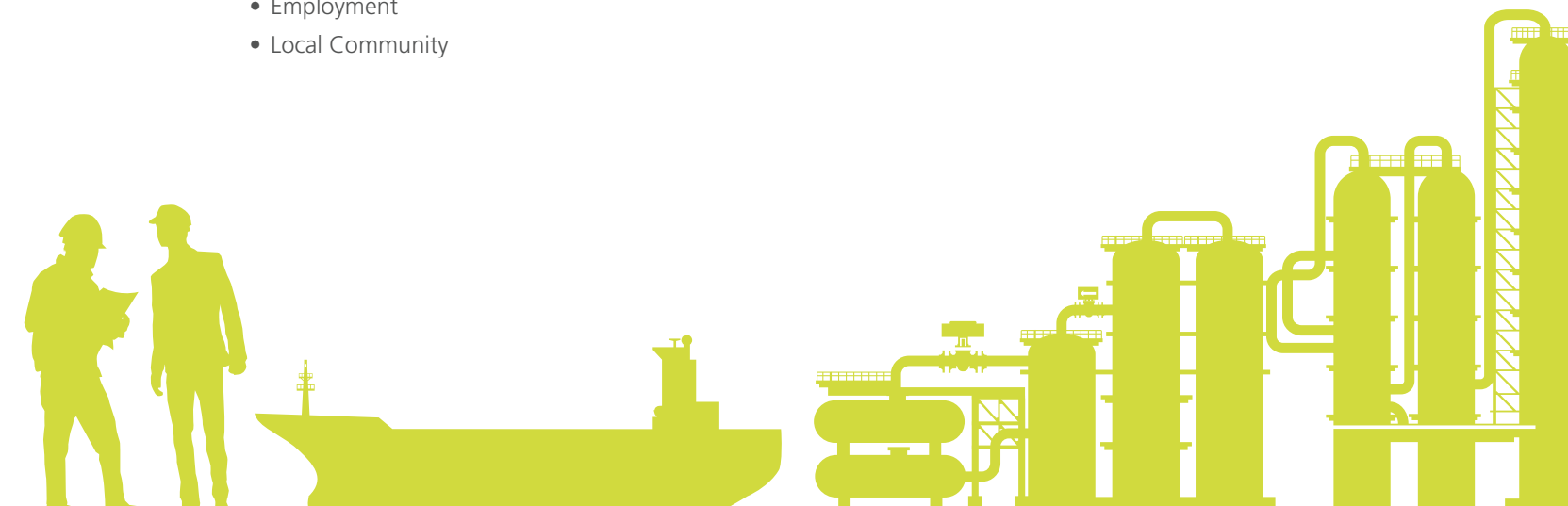
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# HERE TO STAY...



“I have worked in HRC for almost three years now and I finally understand why after almost 13 years, my dad still enjoys working here. It's a great place to work!”

Lee May Xian  
HRC Contract &  
Procurement Buyer

Lee Boon Teck  
HRC Process Control  
Engineer

“HRC has been a great supporter to PD Women's Association throughout the years and we are glad to have created positive outcomes for the community together.”

Madam Sarah Rajoo  
President, Port Dickson Women's Association (PDWA)  
A Non-Profit Organisation in Port Dickson



“HRC has significantly contributed to Port Dickson's business growth over the years.”

ZF Creation & Printing  
One of Port Dickson's homegrown  
businesses



“We are so happy our students have implemented what they learnt from the HRC Go Green Programme into their daily routines!”

Encik Sobri Saad  
Teacher, Sekolah Menengah Kebangsaan Tinggi  
Port Dickson (SMKTPD)  
HRC's fenceline community located  
2 km from the refinery

“HRC keeps us updated  
and is always ready with  
listening ears.”

Encik Azham bin Hussein  
President, Fishermen Association Port Dickson



“Terima kasih HRC! We love  
to read books here.”

Children of Kampung  
Orang Asli Sunggala  
at the library, established by HRC's Women's  
Network together with PDWA



...HERE TO GROW

# HRC BOARD SUSTAINABILITY STATEMENT

Hengyuan Refining Company Berhad has been operating for 56 years in Port Dickson, Negeri Sembilan and we intend to operate for many more years. Our refinery is an iconic landmark in Port Dickson and is embedded in the economic, social and community fabric of the district.

We work very hard to be a responsible corporation and a good employer with the smallest possible environmental footprint while making positive contributions to the state and national economy.

We give back to the community through employing local staff and engaging local vendors where possible, and provide social investments to the Port Dickson community via our Corporate Social Responsibility programmes. At all times we hold ourselves to the highest ethical and governance standards.

To create and deliver long-term value, we consciously built our business model around the following considerations:



These considerations affect all that we do - from the decisions we take to the way we conduct our business and ourselves and the intergenerational impact we make to the lives of our employees, stakeholders, the environment and the people of Port Dickson.

We are aware that our sustainability journey is an on-going effort and we take the mission seriously. We are committed to deepening and extending our sustainability roots while pursuing our vision to be the top performing and most admired refinery in the region, a good employer and a business partner of choice.

## THE BOARD

Hengyuan Refining Company Berhad

## INVESTING TODAY FOR A SUSTAINABLE LONG TERM FUTURE



### KEY IMPACTS AND OUTCOMES



#### ECONOMIC

- Major capital investments to rejuvenate and extend longevity of assets beyond 20 years
- Project tie-ins eliminate the need for refinery outages when connecting the major projects into the refinery
- Significant maintenance and cleaning scope undertaken through MTA 2018 to help improve reliability and increase production, significant maintenance and cleaning scope undertaken to help improve reliability and increase production
- Extension of operating licensing period from 36 months to a maximum of 75 months will increase revenue
- Fair and transparent open tender process
- Encourage participation of qualified and competitive Malaysian contractors
- Enhanced focus on safety intervention and performance, with no compromise of safety versus schedule
- Zero Lost Time Injury (LTI) for project manhours



#### ENVIRONMENT

- Produce cleaner fuels in line with the Government's efforts to reduce motor vehicle emissions
- Reduce environmental footprint through lowering Sulphur Oxides particulates, oil and other contaminants release into the environment
- Enhanced emissions monitoring capabilities
- Applied Best Available Techniques (BATs) in environmental management in the design of these projects
- Obtained Environmental Impact Assessment (EIA) approvals for major projects
- Further improved energy efficiency of our operations
- Laying the groundwork / roadmap for further long term improvements in emissions to atmosphere and water



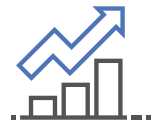
#### SOCIAL

- Creation of additional jobs for Malaysian skilled workers
- Created increased demand for plant equipment, logistics, materials and ancillary living needs (food, laundry, etc) which bolstered local business growth in Port Dickson and across Malaysia
- Active engagement with fenceline communities and local authorities preceding and during execution of these projects
- Capacity and capability building for HRC staff involved in project design, planning and execution

## 2018 KEY SUSTAINABILITY HIGHLIGHTS

### ECONOMIC

- Major Turnaround (MTA 2018) exercise from 6 August to 21 October 2018, was successfully completed, two days ahead of schedule and USD4.46 million below budget.
- Enhanced control and governance measures which included establishing HRC's Anti-Bribery and Corruption & Anti-Money Laundering manual and obtaining IT security certification ISO 27001.
- Expanded and diversified customer base to mitigate over-reliance on single customer sales.
- Over 99 per cent on-spec, on-time product delivery.
- Re-certification of ISO 9001 (Quality Management System).
- Initiated Supplier Summit 2018 for increased awareness on HRC's General Business Principles (HGBP), governance and process standards.



### ENVIRONMENT

- Greenhouse Gas (GHG) emissions in 2018 reduced by 23.0 per cent (1,074,962 tonnes CO<sub>2</sub>-equivalent (eq)) compared to 2017 (1,278,588 tonnes CO<sub>2</sub>-eq).
- Sulphur oxides (SOx) emissions in 2018 decreased by 38.9 per cent (2,669 tonnes SOx-eq) compared to 2017 (4,367 tonnes SOx-eq).
- SOx emissions per million barrels produced showed a 26.0 per cent improvement in SOx efficiency compared to 2017, at 81.9 tonnes SOx-eq. / mln bbl.
- Nitrogen oxides (NOx) emissions in 2018 decreased by 29.7 per cent (414 tonnes) compared to 2017 (589 tonnes).
- NOx emissions per million barrels produced showed 14.4 per cent improvement in NOx efficiency as compared to 2017, at 12.7 tonnes NOx-eq. / mln bbl.
- Total waste generated reduced by 3.0 per cent from 2017.
- Overall energy efficiency; year average Energy Intensity Index (EII) of 111.7, and dropped four points compared to pre-turnaround. This constitutes energy savings of approximately 45 TJ per month.



### SOCIAL

- Zero-fatalities track record for over 25 years.
- Total workforce for the Company, comprising of permanent and direct contract employees, increased from 386 in 2017 to 446 in 2018.
- Organised many corporate social responsibility events with the local community, as set out in pages 28-29 of our Annual Report 2018 and pages 50-51 of this Report.








## OUR GOVERNANCE FRAMEWORK

A good governance framework with accountable practices is an essential part of our overall business strategy. Our governance framework for sustainability is integrated into our organisation structure to ensure that internal and external stakeholders expectations are consistently met. The framework supports our business growth with integrity while ensuring that we remain commercially viable and sustainable in the long run.

Sustainability is managed and governed in our organisation through three levels:

	Roles & Responsibilities	Process
<b>Board of Directors</b> 	<ul style="list-style-type: none"> <li>• Overall responsibility and oversight</li> <li>• Integrates sustainability matters into business strategy</li> <li>• Approves sustainability strategy and Key Performance Indicators (KPIs), targets and market disclosures</li> </ul>	<ul style="list-style-type: none"> <li>• All matters relating to sustainability are reported in board materials and discussed in board meetings</li> </ul>
<b>Chief Executive Officer &amp; Management Team</b> 	<ul style="list-style-type: none"> <li>• Develops and recommends the strategy for ensuring the viability and long term economic, environmental and social sustainability of the business to the Board of Directors</li> <li>• Provides leadership and oversees implementation of sustainability strategy</li> <li>• Evaluates overall risks and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>• In weekly management meetings, reports on sustainability matters are received from the steering committees</li> </ul>
<b>Steering Committees</b> <ul style="list-style-type: none"> <li>• QHSSE</li> <li>• Project</li> <li>• Technical</li> <li>• Commercial</li> <li>• People</li> </ul> 	<p>Within the relevant focus area, each committee:</p> <ul style="list-style-type: none"> <li>• Monitors and reviews sustainability management and performance</li> <li>• Implements measures to improve sustainability performances</li> <li>• Maintains adequate records</li> </ul>	<ul style="list-style-type: none"> <li>• Periodic discussions with the relevant departments</li> </ul>



## NURTURING THE FUTURE

Launched in 2018, the HRC Graduates Programme has received overwhelming response from local and private colleges and university graduates. The site-specific graduate programme is designed to support the hiring of local talents and develop the succession plan for the next generation of employees. Out of more than 100 applications received, 41 candidates were selected to go through the interview process. 10 candidates successfully secured a spot and joined the HRC family in various departments.

**“We are truly excited about this new chapter that we embarked on together with HRC and we look forward to the adventure ahead.”**

Lila Balasubramaniam, Najmi Taib, Daniel Lee and Ayuni Zaidi, HRC Graduates, 2018



EMERGENCY RESP

FIRE

1.3 CDI

841

# STAKEHOLDER ENGAGEMENT AND RISK MANAGEMENT







## Stakeholder Engagement

Our sustainability strategy includes connecting with key stakeholders, who are individuals or groups who have an impact or are impacted by our business, on a regular basis. We engage them through various channels to gain better insight into their issues and concerns.

Feedback from stakeholder engagement activities is used to identify and prioritise material sustainability issues that may require further action.

The table below lists our key stakeholder groups and describes how and why HRC engages with each group during the year under review:

Stakeholders	Engagement Channel	Frequency	Purpose
 <b>Employees</b>	<ul style="list-style-type: none"> <li>• Town Halls</li> <li>• Employee Information</li> <li>• Intranet</li> <li>• Development Discussions</li> <li>• Events and Campaigns</li> <li>• Training</li> <li>• Team Meetings</li> </ul>	<ul style="list-style-type: none"> <li>Quarterly</li> <li>On-going</li> <li>On-going</li> <li>Annually</li> <li>On-going</li> <li>On-going</li> <li>On-going</li> </ul>	Nurture and engage employees to instill a sense of pride in the Company, provide a conducive work environment while ensuring growth opportunities and career development
 <b>Union</b>	<ul style="list-style-type: none"> <li>• Meetings</li> </ul>	Quarterly and as required	Build and sustain relationship, obtain feedback on concerns and provide update on current issues
 <b>Customers</b>	<ul style="list-style-type: none"> <li>• Survey</li> <li>• Email Communication</li> <li>• Supply and delivery meetings</li> <li>• Site visits</li> <li>• Conferences</li> </ul>	<ul style="list-style-type: none"> <li>Annually</li> <li>As required</li> <li>Quarterly</li> <li>As required</li> <li>On-going</li> </ul>	Offer high quality products and service offerings
 <b>Suppliers</b>	<ul style="list-style-type: none"> <li>• Vendor registration</li> <li>• Bid / Tender Process</li> <li>• Meetings</li> <li>• Audit</li> <li>• Conferences</li> </ul>	<ul style="list-style-type: none"> <li>On-going</li> <li>On-going</li> <li>As required</li> <li>Annually</li> <li>On-going</li> </ul>	Set clear expectations to maintain high standards for delivery of products or services to the Company

Stakeholders	Engagement Channel	Frequency	Purpose
 <p><b>Shareholders and Investors</b></p>	<ul style="list-style-type: none"> <li>• Annual General Meeting</li> <li>• Analysts Briefing</li> <li>• Annual Report</li> <li>• Announcement</li> </ul>	<p>Annually</p> <p>On-going</p> <p>Annually</p> <p>As required</p>	<p>Disseminate timely and material information on the Company's activities and financial performance to facilitate decision-making by investors</p> <p>Provide financial information of the Company to facilitate decision-making by investors</p>
 <p><b>Community</b></p>	<ul style="list-style-type: none"> <li>• Community Events and Campaigns</li> <li>• Dialogue</li> </ul>	<p>On-going</p> <p>On-going</p>	<p>Build and maintain good relationships while being a 'Good Neighbour' ie carrying out our corporate social responsibilities to the local communities</p>
 <p><b>Regulators</b></p>	<ul style="list-style-type: none"> <li>• Consultation and Dialogue</li> <li>• Training</li> <li>• Email Communication</li> <li>• Inspection</li> </ul>	<p>On-going</p> <p>On-going</p> <p>On-going</p> <p>As required</p>	<p>Strict compliance with all laws and regulations to maintain operating licences</p> <p>Participation in discussions and knowledge sharing for improvements in industry best practices</p>
 <p><b>Government Agencies</b></p>	<ul style="list-style-type: none"> <li>• Face-to-face meetings</li> </ul>	<p>On-going</p>	<p>Provide business familiarity and sustain efficient business operations</p>



## Risk Management

Sustainability matters are managed as part of HRC's Enterprise Risk Management processes, which form part of our risk management framework. We review and monitor risk and opportunities arising from the Company's economic, environmental and social (EES) impacts and keep an eye on sustainability issues that would influence the assessments and decisions of stakeholders.

HRC is committed to maintaining a sound internal control and risk management framework to ensure that our business continues to operate economically, efficiently and effectively with minimal risk. The framework also governs our efforts to deliver profitable business opportunities in a disciplined way, avoid or mitigate risks that can cause loss, reputational damage or business failure and prepares us for resilience to external factors.

Overall responsibility for risk management and compliance is shared across the organisation, from the Board's oversight on HRC's risk profile to the respective functions ensuring mitigation plans are in place in their areas of business. Both the Board Audit Committee as well as the Board Risk Management Committee provide support to the Board to ensure adequacy of internal controls, risk identification and mitigation plans.




Our principal financial, operational, market, political and sustainability risks are reviewed quarterly through the risk register, which records identified risks, their severity and actions to be taken. Further information on HRC's risk management framework can be found in the Company's Statement on Risk Management and Internal Control in page 66 of our Annual Report 2018.




*All workers on site commit to upholding HRC's General Business Principles and Ethical Business Culture.*

## OUR MATERIAL ISSUES

The material sustainability issues identified for this Report are listed in the table below:

Category	Sustainability Topics	Global Reporting Initiative (GRI)
<b>Economic</b> 	<ul style="list-style-type: none"> <li>Economic Performance</li> <li>Ethical Business Culture</li> <li>Customer Management</li> <li>Product Quality</li> <li>Supply Chain Management</li> <li>Reliability and Production</li> <li>Quality, Health, Safety, Security and Environment (QHSSE) Management and Performance</li> </ul>	<ul style="list-style-type: none"> <li>GRI 201</li> <li>Non-GRI</li> <li>Non-GRI</li> <li>Non-GRI</li> <li>Non-GRI</li> <li>Non-GRI</li> <li>Non-GRI</li> </ul>
<b>Environmental</b> 	<ul style="list-style-type: none"> <li>Water and Effluents</li> <li>Waste Management</li> <li>Gas Emissions</li> <li>Energy</li> </ul>	<ul style="list-style-type: none"> <li>GRI 303</li> <li>GRI 306</li> <li>GRI 305</li> <li>GRI 302</li> </ul>
<b>Social</b> 	<ul style="list-style-type: none"> <li>Employment</li> <li>Local Community</li> </ul>	<ul style="list-style-type: none"> <li>GRI 401</li> <li>GRI 413</li> </ul>

Our selection and prioritisation of material sustainability issues are also guided by the core principles of the GRI Sustainability Reporting Guidelines and the United Nations Sustainable Development Goals (SDGs) identified below.

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**UN SDG Goal 3**  
Ensure healthy lives and promote well-being for all at all ages
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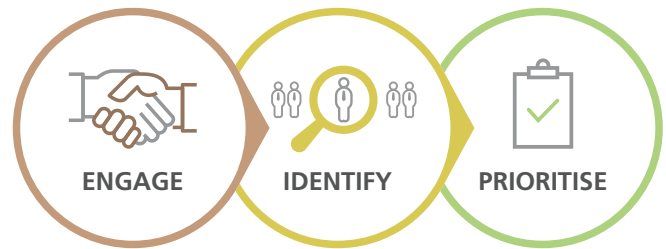
**UN SDG Goal 5**  
Achieve gender equality and empower all women and girls
- 

**UN SDG Goal 8**  
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- 

**UN SDG Goal 12**  
Ensure sustainable consumption and production patterns
- 

**UN SDG Goal 13**  
Take urgent action to combat climate change and its impacts

We identify our material sustainability issues using feedback from stakeholder engagements and our risk management framework, which were described in pages 10 to 12 of this Report. The assessment methodology is summarised in the following steps:



The next section of our Report provides an insight into the material sustainability issues identified and our management and performance of such matters during the year. The material sustainability issues will be reviewed and reassessed from time to time for continued relevance in our business.



## IN TOUCH WITH THE COMMUNITY

Encik Azham, who used to be one of the fishermen in Port Dickson, became the President of the local fishermen association in 2017. Over the years, HRC has kept in touch with Encik Azham, where necessary, to keep the local fishermen engaged while we run jetty operations safely and reliably.

**“We truly appreciate that HRC always engages with us and addresses our queries proactively.”**







## ECONOMIC SUSTAINABILITY

As an established corporate member of the Port Dickson Community, one of the most established refineries in Malaysia and a significant supplier of oil and fuel products to the nation, our economic sustainability directly and indirectly impacts our employees, customers, suppliers, neighbours and shareholders. We aspire to achieve long-term economic growth without negatively affecting environmental and social sustainability, and regard the following factors as key to achieving our goals.



### Economic Performance

HRC monitors its economic performance by setting annual budgets and financial performance targets that are periodically reviewed. For the financial year ended 2018, we recorded revenues of RM11.2 billion on the back of higher oil prices which compensated for lower production and sales volume due to the statutory shutdown, while profit after tax amounted to RM30.8 million and total comprehensive income of RM239.0 million. Further details of our financial performance can be found under the Management Discussion & Analysis section in pages 34-35 of our Annual Report 2018.

For the year ended 31 December 2018, the economic values generated, retained and distributed by the Company are as follows:

<b>Economic Value Generated<sup>(a)</sup></b>	RM11.26 billion
<b>Economic Value Distributed<sup>(b)</sup></b>	RM11.17 billion
<b>Economic Value Retained<sup>(c)</sup></b>	RM93.27 million

Notes:

- <sup>(a)</sup> Refers to the revenues and other income generated by HRC.
- <sup>(b)</sup> Refers to operating costs, employee wages, payments to providers of capital, payments to government and community investments.
- <sup>(c)</sup> Refers to Economic Value Generated minus Economic Value Distributed.



### Ethical Business Culture

We firmly believe in the importance of good business ethics and promoting trust, openness, teamwork and professionalism within the organisation. An ethical business culture that embeds strong corporate governance and integrity translates to operational excellence and credibility, which leads to us being a responsible employer, a business partner of choice for customers and suppliers and a preferred company for current and potential investors.



Our corporate culture is founded upon the core values of “honesty”, “integrity” and “respect for people”. Our corporate values are encapsulated in HRC’s General Business Principles (HGBP), which can be found in page 12 of our Annual Report 2018, and are complemented by the Company’s Code of Conduct (Code) and Anti-Bribery & Corruption and Anti-Money Laundering Manual (ABC & AML Manual), which sets out the standards for business conduct and behaviours applicable to all employees, officers, directors, suppliers and contractors of HRC. Our Whistleblowing Policy is publicly available on the Company’s website and sets out the procedures for employees and members of the public to report improper and unethical conduct.

The HGBP, Code, ABC & AML Manual and Whistleblowing Policy are published on the Company’s website at [www.hrc.com.my](http://www.hrc.com.my).

### Elements of HRC’s Ethical Business Culture



A snapshot of our core values and the business practices that support it are set out below:

<p><b>Honesty and Integrity</b></p> 	<p><b>Anti-Money Laundering (AML)</b></p> <p>We have stringent measures in place to ensure that our business transactions are not used for money-laundering purposes and that customers whom we deal with do not indulge in such practices. Our anti-money laundering policy is set out in the ABC &amp; AML Manual.</p>
	<p><b>Whistleblowing Policy</b></p> <p>HRC's Whistleblowing Policy provides an avenue and protection for employees and members of the public to disclose genuine and legitimate improper business conduct.</p>
	<p><b>Anti-Bribery and Corruption (ABC)</b></p> <p>HRC is against corruption and bribery practices. We do not accept or pay any bribes or facilitate any payments of such bribes in our business dealings. We discourage our employees from accepting or giving out gifts and hospitality perks to business partners.</p> <p>All employees and contractors must comply with anti-bribery and corruption laws in Malaysia as well as in countries where we have commercial dealings.</p> <p>All business partners are required to declare their commitment to HRC's ABC &amp; AML Manual.</p> <p>HRC is in the process of being certified for ISO 37001 (Anti-Bribery Management System) and is expected to receive this before the end of 2019.</p>
	<p><b>Conflict of Interest</b></p> <p>HRC promotes transparent and accountable business practices. To avoid any potential conflict of interest situations, employees, officers and directors are required to declare potential or perceived conflicts of interest on an annual basis, or as required. All business partners are also required to declare any conflict of interest during the tendering process.</p>
	<p><b>Gifts and Hospitality</b></p> <p>HRC discourages any acceptance or offering of gifts and hospitalities. Where the gift or hospitality is unavoidable due to local culture, it must be declared following the procedures set out in the ABC &amp; AML Manual and the Code.</p>
	<p><b>Compliance</b></p> <p>We endeavour to comply with all applicable laws and regulations in places where we operate and have commercial dealings.</p>
<p><b>Respect for People</b></p> 	<p><b>Human Rights</b></p> <p>We believe we have a responsibility to respect, support and uphold fundamental human rights as expressed in the Universal Declaration for Human Rights and the United Nations Guiding Principles on Business and Human Rights. As a responsible company, we adhere to Malaysian employment laws and ethnical practices which ensures amongst others, fair minimum wages, fair working hours and prevention of child or forced labour.</p> <p>Human Rights issues are also incorporated into the Company's framework, manuals and policies in key areas covering social performance, safety, human resources and contracting and procurement.</p>
	<p><b>Political Activity</b></p> <p>HRC does not participate in any political activities or use funds or resources to support any political candidate or party. Any employee who wishes to participate in any political activities or run for a public office position is able to do so outside working hours with the consent of his / her supervisor.</p>
	<p><b>Anti-Trust</b></p> <p>HRC supports free enterprise and fair competition in the industry. We do not engage in price-fixing or market manipulation activities with competitors.</p>

In 2018, HRC commenced a training series on ethics and compliance among existing employees and business partners which covered, amongst others, topics on anti-bribery, corruption and anti-money laundering. This module is also part of the onboarding training programme for new joiners.

In addition, HRC organised a Business Integrity Week in January 2018 which involved showcases, talks and interactive sessions with participants to enhance awareness on business integrity, governance and ethics. The event was attended by directors, employees and business partners of the Company.

The performance of our ethical business culture is tracked and reported to the Board of Directors as part of the Company's scorecard on a quarterly basis. In 2018, the Board Audit Committee reviewed six reports on whistleblowing disclosures and provided the necessary responses. In addition, no major non-compliance cases or breach of ethical business culture practices were recorded during the year.



### Customer Management

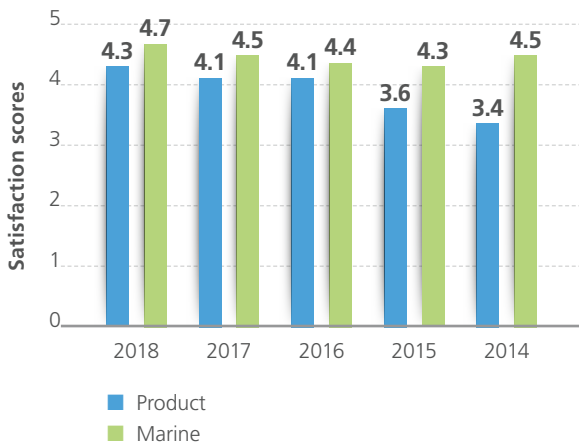
Our customers comprise mainly retail and commercial distributors and trading houses who are based in Southeast Asia.

We recognise the importance of nurturing our relationships with customers to maintain and improve supply flexibility and robustness. At present, we measure customer satisfaction through an annual customer survey and from feedback received through the appointed customer focals in the Company. Reviews from customers enable us to identify opportunities for products and services improvements. Any changes to the customers' orders are handled carefully using the product nomination process.

#### KEY HIGHLIGHTS

Results from the 2018 customer survey show a continuous improvement in overall customer satisfaction for reliability, responsiveness, communication and cost.

#### HRC Customer Satisfaction survey



#### Targets

Seek new avenues to supply products in order to strengthen and diversify customer base

#### 2018 Activities

In 2018, we explored and implemented new trade opportunities with local and global industry players for the sale of refined and oil component based products. We have also initiated medium to long-term contracts for some of our export products with new customers.

Secure new markets

In the domestic market, we commenced third party gantry sales to supply oil products to other inland buyers.

For the overseas markets, we participated in regular tender exercises and events within the region.

Establish brand and build reputation and image

We participated in the Asia-Pacific Economic Conference (APEC) and Asia Petrochemical Industry Conference (APIC) in the region to promote our products and services.



Third party gantry sales increased as HRC started to supply to more inland buyers.

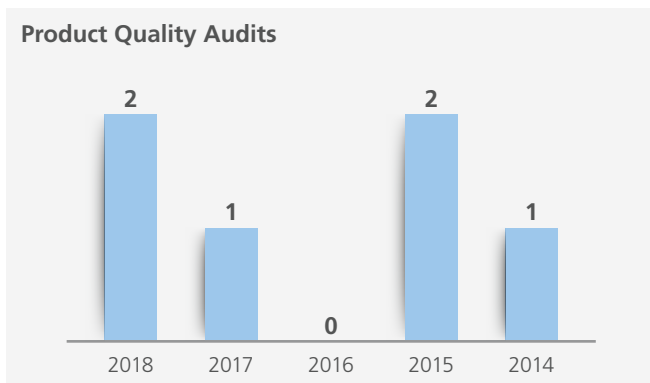


## Product Quality

All our products conform to the QHSSE standards throughout the product’s lifecycle.

The quality of our products is systematically verified along the production chain in our laboratory. Product Quality (PQ) audits are conducted regularly to ensure that our procedures and processes in place are adequate to achieve PQ excellence, whether in execution of timely deliveries or meeting product quality specifications.

A summary of the number of PQ Audits conducted in the last five years are represented in the graph below:



### KEY HIGHLIGHTS

We continue to record an over 99 per cent success rate in 2018 for achieving on-time and on-spec product delivery. There were no high and medium severity Product Quality Incidents (PQIs) in 2018. We however had two low severity PQIs in the same year which reflects our good performance in this area over the last five years.

The MTA 2018 enabled HRC to resolve several product quality threats as it allowed us to do thorough maintenance on equipment affecting PQ.

HRC’s laboratory underwent a ISO 17025 surveillance audit in 2018, conducted by the Department of Standards Malaysia. No major findings were found. We were also re-certified for ISO 9001 by SIRIM QAS International Sdn Bhd in the same year.

In 2018, three minor incidents impacted our products and delivery. In two separate PQIs, Mogas and Gasoil products were found contaminated with water in our customer’s road tankers. These products were immediately returned to the refinery for reprocessing. There was an intermittent supply disruption to our customers for half a day during this incident. Immediate corrective and precautionary measures were put in place which resolved these issues. This includes more structured surveillance, improved facilities and more frequent draining of low points within the product transfer pipeline system.

Separately, during plant stabilisation post-MTA 2018, volumes of off-spec LPG were inadvertently produced. This incident does not constitute a PQI, but we noted it resulted in intermittent short duration stock-outs to one customer. For all incidents, learnings have been captured to ensure they are not repeated and are being addressed. This includes improved cross-plant communications, enhanced product sampling frequency and increasing awareness of the PQ process to ensure products are always fit for purpose.

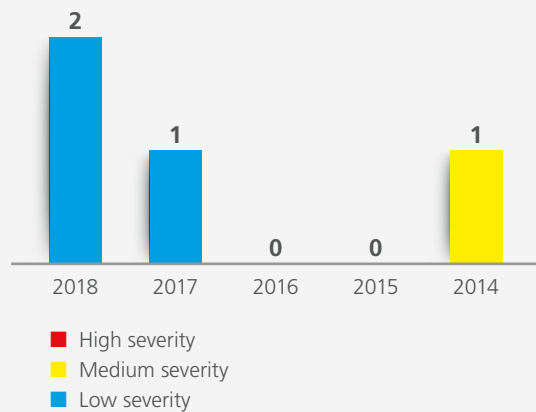
### Target

Achieve zero high and medium PQIs

### 2018 Activities

Through continued effective implementation of the Ensure Quality Product (EQP) process, HRC achieved this target in 2018

### Product Quality Incidents

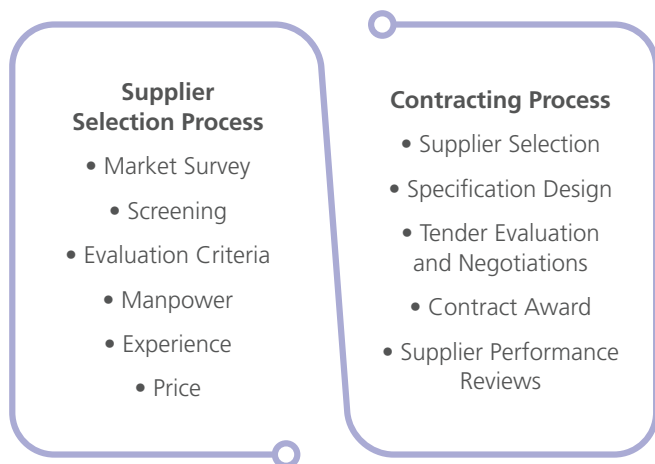




## Supply Chain Management

Having the right supplier and contractor base is an integral part of HRC’s economic sustainability practices. The selection of suitable, qualified and competitive suppliers and contractors ensures that our operations flow smoothly and our product quality is consistent. We only work with suppliers and contractors who are selected using processes in our supply chain framework.

Our Contracting Policies and Procedures Manual and Contracting and Procurement Management System define our supply chain management process. This can be summarised as follows:



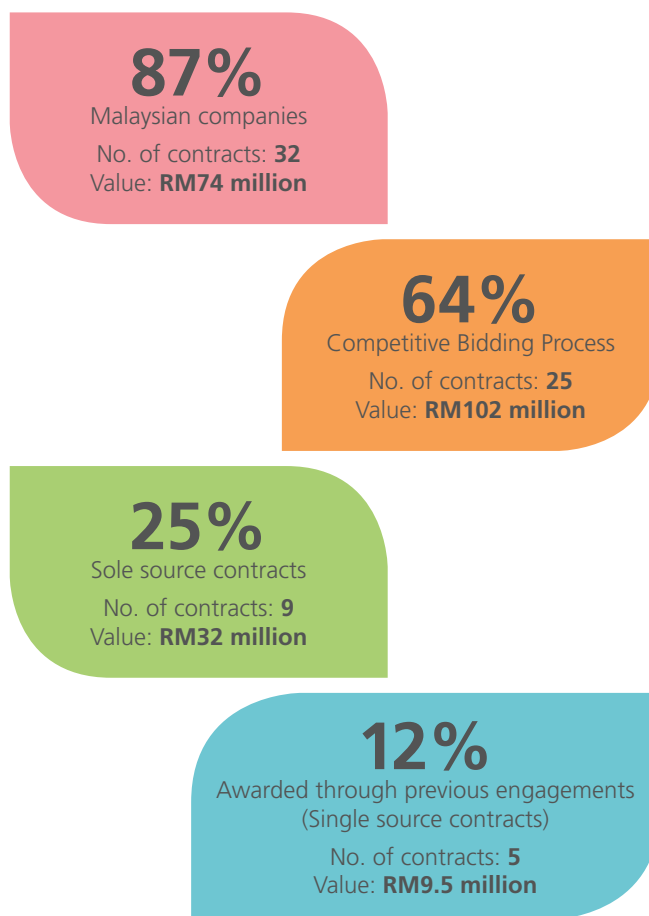
We maintain an open relationship with manufacturers, vendors and suppliers servicing the oil industry and refinery business through regular meetings to discuss contractual issues. We also identify new opportunities via market survey and assessment of trends and changes on major commodities to enhance our business performance.

Our commercial effectiveness and value generation are achieved through key value drivers in three process areas:

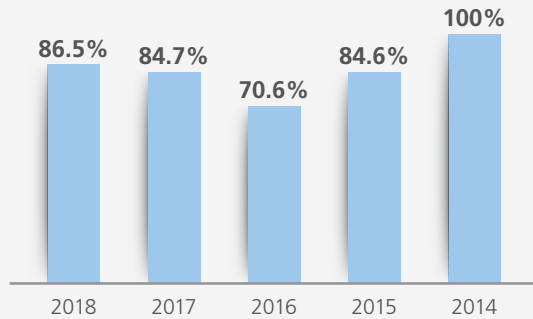
- **Contracting and Procurement** – Optimally placing HRC’s goods and services demand into the market
- **Production** – Efficiently producing products for HRC’s customers
- **Sales** – Optimally satisfying customer’s demand for HRC’s products

In 2018, competitive bidding represented 64 per cent of our awarded contracts. 25 per cent of the contracts were awarded without bidding as there was only one service or product provider identified in the market (sole source contracts). The remaining 12 per cent (single source contracts) were awarded based on technical requirements to maintain consistent plant configuration or specifications.

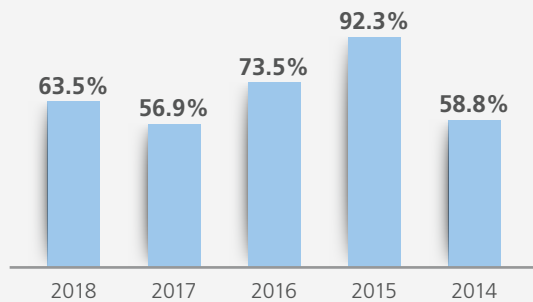
Further details of the 2018 procurement contracts are:



**Contracts Awarded to Malaysian Companies**



**Competitive Bidder Contracts**



Supplier performance reviews are conducted on a regular basis depending on the nature, value and risks of the contracts. Four contract performance reviews were performed in 2018. The results of the review, which included the contractor’s performance, communication, manpower management and initiatives, were discussed internally and with the relevant vendors.

**KEY HIGHLIGHTS**

In 2018, the contracting and procurement process continued to show improvement in areas such as management of tendering process and contracting strategy approval prior to the expiry of long-term contracts.

We also initiated and hosted our debut Supplier Summit in December 2018 to update suppliers on HRC’s business plans and demands and reiterate expectations to all registered vendors and suppliers.

Business partners, vendors and suppliers attended an ethics and compliance session where they were briefed on the Company’s HGBP, Code and ABC & AML Manual, which govern all contracts entered into by HRC.

**Targets** 

**2018 Activities**

Enhance competition and leverage on the best quality, delivery time and prices by expanding supplier base

HRC seeks to actively diversify our supplier base through expanded bidders lists for all competitive tenders, including more local and international bidders. All bidders pass various governance and suitability checks before being added to our bidders lists.

Minimise procurement costs

HRC began implementing an electronic tendering and e-contract management system to reduce the cost of supply chain management tracking, increase traceability and governance and ultimately lessen the processing time for purchases.

We are also introducing an office automation system to support human capital management and contracting and procurement with automated workflows that can potentially increase productivity and reduce overheads. This project is targeted to go live in January 2020.

Identify and manage risks and increase efficiency in supply chain management

All vendors and suppliers are required to declare any conflict of interest and to sign a commitment to HRC’s ABC & AML Manual. We continue to work towards enhancing processes and engaging our suppliers and contractors which includes the identification of and management of contracting and procurement risks and efficiency through a monthly joint review conducted with its contract management team.

## Reliability and Production

Equipment reliability is essential for asset integrity and to achieve production efficiency, costs and performance optimisation.

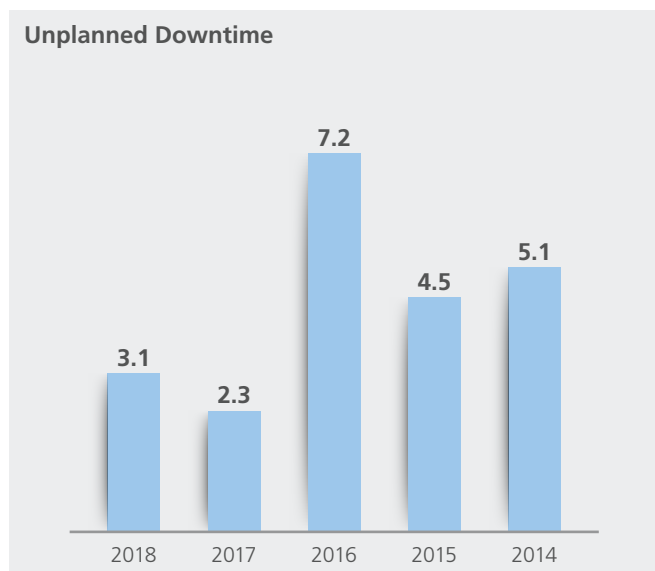
In HRC, the Proactive Threats Identification and Elimination (PTIE) and Asset Integrity Assessment (AIA) work processes are applied to identify equipment maintenance needs and upgrade projects to ensure continuous equipment availability and operability.




## RELIABILITY MINDSET

‘Reliability Mindset’ is part of our corporate culture – we promote individual accountability and excellence in every phase of asset management to encourage our people to participate proactively in our asset integrity management.

Our continuous efforts in enhancing our Reliability Management framework and reinforcing a ‘Reliability Mindset’ resulted in the substantial improvement of our plant reliability.



Targets 	2018 Activities
Plant Availability target > 96.6 per cent	Target achieved at 96.87 per cent in 2018 due to extensive efforts carried out during the year, particularly during MTA 2018
Operational availability targets > 76.49 per cent	Achieved 79.4 per cent
Unplanned Downtime (UPDT) < 2.39 per cent	Achieved 3.1 per cent

The production for 2018 was as follows:

- Total production in 2018 was 32.5 million barrels, meeting the crude processing target for 2018, albeit 7.2 million barrels lower than 2017 production numbers due to MTA 2018.
- Gasoline production was lower compared to 2017 primarily due to weakened gasoline cracks and MTA 2018.
- Kerosene / jet make was similar to 2017’s volumes, supported by relatively strong regrade and stable Jet treating unit operation.
- Gasoil production was lower due to lower crude processing volume compared to 2017, primarily due to MTA 2018.
- LPG and propylene production were also lower in 2018, caused by lower Long-Residue Catalytic Cracking Unit (LRCCU) intake due to MTA 2018.

### KEY HIGHLIGHTS

In 2018, we strived to improve plant reliability and address the high UPDT that was experienced during the previous years.

The successful completion of MTA 2018 is expected to improve the refinery’s reliability and provided a new lease of life to the plant. Replacement of the LRCCU regenerator dome enables the unit to run for another 18 to 20 years.

We continue to closely monitor and manage reliability threats to our assets that are susceptible to higher risks of equipment failure. All measures are being considered to extend the operational life of current equipment and maximise operational reliability.

With the combination of well-established processes and on-going improvements, we are confident that HRC will continue to achieve good plant reliability.





**QHSSE Management and Performance**

As a responsible organisation, we prioritise the health, safety and security of all those impacted by our operations, including our employees, contractors and surrounding communities. Our commitment to this is crucial to our continuity as a refinery and an oil and gas industry player.

Our QHSSE management and performance are governed by a well-established governance structure and stringent standards, including those set out in our Health, Safety, Security, Environmental and Social Performance (HSSE & SP) Commitment and Policy as well as our Quality Policy, which all support the QHSSE framework.

Improving our QHSSE performance remains a top priority for the Company. Over the past three years, we increased the QHSSE budget from RM7.2 million in 2015 to RM7.6 million in 2016 and RM8.9 million in 2017. In 2018, the QHSSE budget was RM6.3 million with a further RM2.0 million for Health, Safety, Security and Environmental (HSSE) aspects under MTA 2018.

To strengthen our QHSSE performance in 2018, we continued to invest on development and training, campaigns, emergency response exercises, environmental monitoring, EIA as well as waste and effluent management.

**(i) QHSSE Governance**

We manage the QHSSE framework via a 3-tier structure:

Committees	Roles
<b>HSSE Tier 1</b> (All departments)	<ul style="list-style-type: none"> <li>Addresses HSSE issues raised by employees and contractors from the ground level</li> </ul>
<b>HSSE Tier 2</b> (Production unit managers, area owners and representatives from all other units)	<ul style="list-style-type: none"> <li>Reviews 10 QHSSE-related work processes and escalations from HSSE Tier 1 Committee</li> <li>Management Team monitors HSSE performance on a weekly basis</li> </ul>
<b>HSSE Tier 3</b> (Steering Committee or Environmental Regulatory Compliance Monitoring Committee Management Team, QHSSE work process focal persons, production unit managers and employee representatives)	<ul style="list-style-type: none"> <li>Discusses and identifies critical HSSE issues and implements QHSSE programmes</li> <li>Attends to escalations from the HSSE Tier 2 Committee</li> <li>Meets on a monthly basis to cover standing agendas and on a quarterly basis to review the organisation's environmental performance and compliance, as required by the Department Of Environment (DOE) directive for Guided Self-Regulation (GSR) initiative</li> <li>Reviews performance and results of internal and external audit programmes</li> <li>Conducts annual HSSE-MS management review</li> </ul>

**(ii) QHSSE Management**

In 2018, we focused on improvements to the following key areas to safeguard our employees, local community, and the contractors we work with from any potential risks or danger:

- Personal safety
- Process safety
- Emergency preparedness

We continue to maintain high standards of assurance through a 3-tier Line of Defence (LOD) structure, consisting of self-audit via self-monitoring and tracking drills and exercises, internal audits and independent external audits.

As part of the QHSSE policies, we conduct Environmental, Health and Social (EHS) Impact assessments on our ongoing activities and any major new projects to minimise negative impacts to:

- the health and safety of employees and surrounding communities
- air quality
- biodiversity
- the use of energy, water and other resources
- waste management

**KEY HIGHLIGHTS**

- We achieved 5.6 million man hours without a LTI as at 31 December 2018.
- HRC's Annual Plan details the HSSE KPIs, targets and action plan for the year ahead. HRC maintains a QHSSE indicator as part of its KPIs, one of which is the submission of weak signals by both employees and contractors through the Near Miss and Potential Incident (NMPIs) submissions.

The KPI for NMPIs requires the Company to have 4,300 submissions and achieve more than 80 per cent action closure. HRC achieved over 6,300 submissions and 98.1 per cent closure in 2018.

Our systems are certified with:

- ISO 9001: 2015 Quality Management System
  - ISO 45001: 2018 Occupational Health and Safety Management Systems
- HRC successfully upgraded its Organisational Healthy and Safety Assurance Standard (OHSAS) 18001: 2007 to ISO 45001: 2018 (Operational, Health & Safety Management System) in 2018, and is the first refinery in Malaysia to achieve this certification.
- ISO 14001: 2015 Environmental Management System
  - ISO 17025: Accreditation for Testing and Calibration Laboratory
  - ISO 27001 Information Security Management Systems, certified in December 2018

**(iii) Personal Safety**













Personal safety is paramount as we want all our workers to return home safely each day. In addition to employees, the safety of our contractors on site is also monitored and all visitors to the site are required to undergo safety inductions and adhere to our safety regulations.

We drive the “Chronic Unease Mindset” into all our employees, contractors and visitors to be constantly vigilant about the potential risks and dangers in their surrounding environment when performing their tasks. All individuals are asked to play their part to uphold safety requirements.

HRC’s GOAL ZERO vision states our aim to operate without any fatalities or significant incidents. The 12 Life Saving Rules and Process Safety 9 Fundamentals support our GOAL ZERO vision.

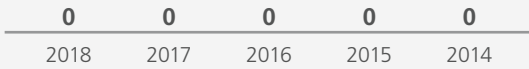


## LIFE SAVING RULES

<p><b>1</b>  Work with a valid work permit when required</p>	<p><b>2</b>  Conduct gas tests when required</p>	<p><b>3</b>  Verify isolation before work begins and use the specified life protecting equipment</p>	<p><b>4</b>  Obtain authorisation before entering a confined space</p>
<p><b>5</b>  Obtain authorisation before overriding or disabling safety critical equipment</p>	<p><b>6</b>  Protect yourself against a fall when working at height</p>	<p><b>7</b>  Do not walk under a suspended load</p>	<p><b>8</b>  Do not smoke outside designated smoking areas</p>
<p><b>9</b>  No alcohol or drugs while working or driving</p>	<p><b>10</b>  While driving, do not use your phone and do not exceed speed limits</p>	<p><b>11</b>  Wear your seat belt</p>	<p><b>12</b>  Follow prescribed Journey Management Plan</p>

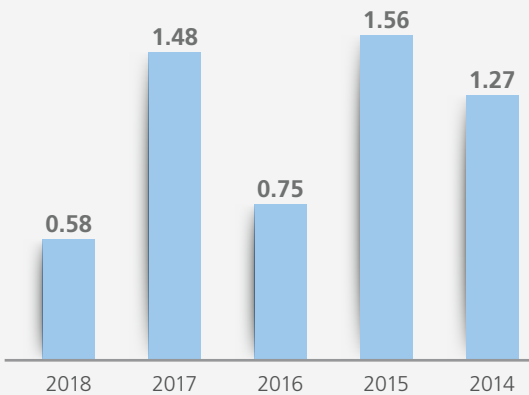
HRC's safety performance in 2018, compared over a five-year period, is as follows:

**Fatalities**



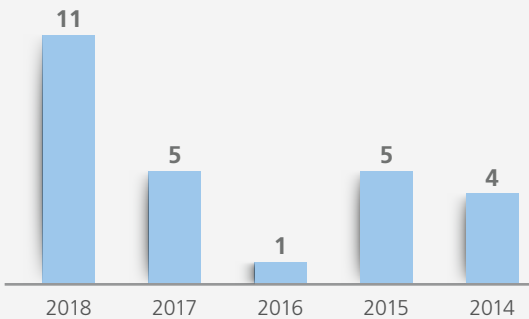
In 2018, there were no fatalities, thus lifting our zero fatalities record to more than 25 years.

**TRCF**




Our Total Recordable Case Frequency (TRCF) for 2018 improved by one-third compared to the previous year, even with MTA 2018.

**First Aid Cases**



Minor personal safety incidents constituting first aid cases were recorded during MTA 2018.

Targets 	2018 Activities
Educate all new employees, contractors or visitors of potential risks and dangers at site	<ul style="list-style-type: none"> <li>All parties were required to attend a mandatory safety induction programme</li> </ul>
Reinforcing the "keep in mind" and "Chronic Unease" mindset on potential risks and dangers in the workplace	<ul style="list-style-type: none"> <li>Ongoing campaigns and programmes were held to support Goal Zero</li> <li>Designed and implemented new programmes and training exercises in response to emerging safety risks identified from the course of our operations</li> <li>Took analytical approaches on NMPI received to mitigate HSSE weak signals and conducted systematic learning from HSSE incidents</li> </ul>
"Goal Zero" Vision	<ul style="list-style-type: none"> <li>As at 31 December 2018, 5.6 million man-hours were achieved without LTI</li> </ul>

**Incidents in 2018**

Despite our efforts to maintain a safe working environment, some minor personal safety incidents and first aid cases were recorded during MTA 2018:

- (a) Two Restricted Work Case incidents were jointly managed by HRC and the contractors involved in the turnaround activities. Through the collaborative efforts of the parties, all risks were well mitigated with quick incident investigations and action plans which prevented more serious incidents. The learning outcomes from the reported incidents were shared with all site personnel through the HSSE Alert sharing processes.
- (b) First-Aid cases increased from five cases in 2017 to eleven cases in 2018 which included the MTA 2018 period. They were immediately followed through by safety stand-downs and daily toolbox sessions with the work crews.




**5.6 million man-hours**  
 achieved without Loss Time Injury (LTI)  
 (as at 31 December 2018)

**(iv) Process Safety**

Process Safety relates to the prevention and management of hazardous material unplanned release, which could result in undesired incidents such as personnel injury, fire, equipment damage or regulatory non-compliant environmental release. At HRC, process safety is upheld by ensuring that appropriate measures are put in place to ensure proper design, operation, maintenance and inspection of our facilities.

Our process safety improvement strategy focused on three main areas:

- Preventive measures with structured reliability and risk focused maintenance programmes by enhancing training, governance, documentation and communication to prevent spills and releases. We focus on understanding and identifying key factors that may impact safe and proper equipment operations. We also strengthen our asset integrity inspections and monitoring activities.
- Design processes to avoid process safety events or provide systems to mitigate and contain any release.
- Crisis management measures based on the strengthening of our spill response capability and comprehensive mitigation measures.

The 'Process Safety To The Next Level' Programme was launched in 2016 and represented a new initiative to reduce significant process safety incidents. Under this initiative, programmes such as "The 8 Key Steps", "Keep It In the Pipe" and "Process Safety 9 Fundamentals" (PS9F) were implemented.

**PROCESS SAFETY TO THE NEXT LEVEL PROGRAMME INITIATIVES**

**THE 8 KEY STEPS**

The '8 Key Steps' is a collection of improvement tactics which are meant to enhance the refinery process safety performance.

**KEEP IT IN THE PIPE**

'Keep It in the Pipe' is a site effort, which focuses on reducing leaks from the refinery via rigorous identification and tracking of small leaks, analysing causes and devising improvement initiatives to prevent and address common factors that may contribute to leaks.

**PROCESS SAFETY 9 FUNDAMENTALS**

The PS9F gathers the minimum requirements of process safety which should be followed at all times. They remind our employees of the most critical points in terms of behaviour and procedures.

**Process Safety 9 Fundamentals (PS9F)**



All elements of the '8 Key Steps' initiative were implemented by 2018. However, we continue to enhance the components of both 'Keep It In The Pipe' and 'PS9F' programmes, which form part of the '8 Key Steps'.

Throughout the year, HRC focused on improving the practices of PS9F to ensure the safe and successful execution of MTA 2018. This included refining the requirements for start-up and shut-down procedures and walking the lines after any lineup change to assure asset integrity. The initiatives under the 'Process Safety to the Next Level' contributed to a successful MTA 2018 and HRC's achievement of 5.6 million man-hours without LTI.

**Process Safety Reviews**

HRC conducted five process safety reviews in the year 2018, two of its existing plant and three for major projects including Euro 5 Gasoil, CAR and H2GEN. The process safety reviews were undertaken to ensure that the existing plant is safe and that any new facilities installed under the new projects are designed safely.

**Incidents**

Our process safety performance for 2018 was comparable to 2017. We recorded two Process Safety Events, which were classified as per industry standard API 754 (issued by the American Petroleum Institute):

API Tier 1 Process Safety Event (PSE) – 1 in September 2018

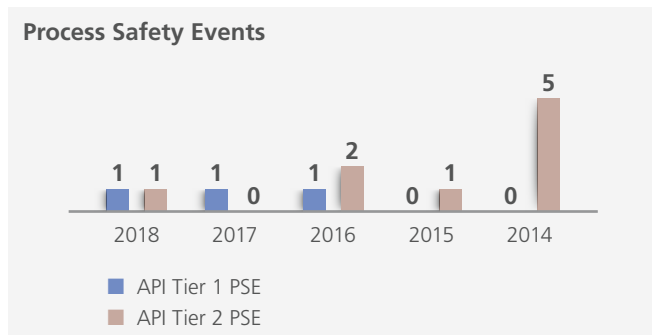
Incident: Leaking end spool on a 12” crude feed pipeline resulted in crude oil release into a bunded area.

Action taken: Upon detection, the line was immediately isolated and the surrounding area barricaded. The released crude oil was contained in our secondary containment (a bunded area) and recovered back into a crude tank. Repairs were performed immediately. Investigation pointed to internal corrosion at a dead leg as the cause of the leak. Similar systems have since been inspected to avoid a recurrence.

API Tier 2 PSE – 1 in October 2018

Incident: Leak from a gauge spool of a column overhead accumulator.

Action taken: Affected units were slowed down and isolated immediately, and the leaking spool replaced. Investigations pointed to internal corrosion due to dead leg and ammonium chloride deposition as the causes of the leak. Systems with similar conditions have since been inspected and a programme for replacement of similar pipe spools is in progress.



**Learning from Incident (LFI) Review**

As part of our process safety protocol, all reported HSSE incidents, near-misses and other unplanned events are reviewed. The most critical incidents are analysed through a causal learning investigation protocol to uncover the root causes. The recommendations are then translated into action items and subsequently included in learning / action packs that are distributed to all concerned parties. The working teams meet on a monthly basis to jointly review the HSSE incidents from internal and external sources.

Prior to MTA 2018, three major topics relating to process safety and HSSE, which were based on 2015 turnaround incidents, were translated into a one-page alert and shared to all employees and contractors to ensure that the learnings were refreshed before MTA 2018 began.

LFI sessions increased in 2018 when compared to 2017 as we put more emphasis on HSSE and recognised the need to manage incidents urgently and prevent their recurrence.

**Causal Learning (CL) Process for Incident Investigation**

**CL LEVEL 1**

- To identify physical / direct causes
- By personnel or department where the incident occurred
- Awareness on CL protocol
- Completed within 4 weeks (or earlier for straight-forward cases)

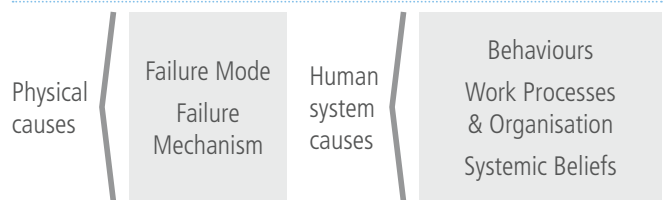
**CL LEVEL 2**

- To identify behavioural causes (eg actions, decisions)
- By cross functional investigation team members
- Facilitated by a trained CL facilitator(s)
- Typically requires > 4 weeks to complete

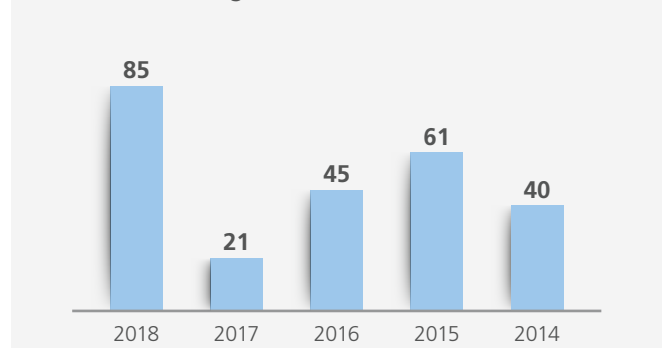
**CL LEVEL 3**

- To identify organisational causes (eg processes, structures)
- Management sponsored investigation with a written terms of reference
- Facilitated by site’s CL Process Focal Point (PFP) or other facilitator with required competency
- By cross functional investigation team members
- Requires 1-2 months to complete

**DEPTH OF CAUSE**



**Number of Investigations Conducted and Presented**




### (v) Emergency Preparedness and Response

The Emergency Preparedness and Response system is an integral part of our process safety as assurance for high readiness in safeguarding our people and business.

The Emergency Response (ER) and Security Section maintains a close working relationship with local agencies such as the Seremban and Port Dickson Fire and Rescue Department, Royal Malaysian Police Department, Marine Department, and the Petroleum Industry of Malaysia Mutual Aid Group (PIMMAG).

We conduct regular reviews of the existing plans based on established standards and industry practices. In 2018, we focused on improvements to our Emergency Preparedness and Response processes, which included a review of the Emergency Response Plan and Oil Spill Response, to ensure that we have the highest level of readiness possible for timely and effective deployment during emergencies.

Targets 	2018 Activities
Replacement / Refurbishment of ER Vehicles / Equipment	<p>Briefing for the design and specifications of new fire trucks were completed as part of aging emergency response vehicle renewal efforts.</p> <p>Two old utility vehicles were refurbished as Quick Attack Vehicles for intermediate fire-fighting and containment.</p> <p>Firefighting foam stock capacity increased from 28,000 to 32,000 liters.</p>
Sustaining the Emergency Readiness awareness	<p>17 training sessions on topics such as Firefighting, High Angle and Confined Space Rescue, HAZMAT, Medical Aid, On Scene Commander and Fire Watchers, involving 249 employees and contractors were conducted.</p> <p>16 members from the operation shift teams and four members from the Fire, Rescue and Medical (FiRM) team have also been trained as Oil Spill Response Supervisors.</p> <p>At present, the Company has 108 Emergency Management Team (EMT) members from across the Company who are trained to execute the Incident Command System (ICS) to effectively manage and mitigate any emergency.</p>
Testing the emergency readiness strategies	<p>13 Tier-1 drills were conducted in collaboration with the shift and FiRM teams involving firefighting, gas leak and confined space rescue scenarios. Feedback from such drills enabled the site's Pre-Incident Plans (PIPs) to be reviewed and maintained at its highest applicability.</p> <p>Several Tier-2 exercises involving simultaneous fire and oil spill scenarios at the jetty were carried out by the ER and Marine teams. The exercise included the participation of the Malaysian Fire and Rescue Department.</p> <p>A Tier-2 exercise was conducted by the site's laboratory section using a fire and chemical scenario with the participation of the Malaysian Fire and Rescue Department and Port Dickson Hospital.</p>
Increase external stakeholders engagement	<p>Quarterly meetings were held with the Malaysian Fire and Rescue Department, leading to joint Tier-2 exercises and several fire-fighting, rescue and HAZMAT training sessions being conducted by the agency.</p> <p>Half-yearly meetings were also held to forge a mutual aid partnership between key industry players in Port Dickson including HRC, Petron Malaysia Refining &amp; Marketing Berhad, Tenaga Nasional Berhad's Tuanku Ja'afar Power Station and Jimah Ventures' Power Station.</p>

## HSSE Training

We provide comprehensive training to our people to ensure continuous HSSE excellence.

Regular drills are conducted to ensure that personnel are familiar with precisely defined roles, responsibilities, resources and specific actions that have to be taken during HSSE incidents.

In 2018, the following training programmes were conducted:

- To ensure MTA 2018 readiness, we focused on engagements, on-boarding sessions and teambuilding exercises with relevant authorities including the Department of Occupational Safety and Health (DOSH), the DOE, Royal Malaysian Police, Immigration Department, Fire and Rescue Department, Port Dickson Municipal Council and the District Office, to ensure a smooth turnaround.
- In the lead up to MTA 2018, induction programmes were increased from once a week to four sessions in a day. By July 2018, over 15,000 Job Hazard Analysis had been endorsed, enabling timely work execution by contractors in preparation for MTA 2018.

- Permit To Work Module 1 & 2 and Heavy Lifting & Rigging – Ongoing training was given to supervisors and riggers to ensure that employees are clear on their responsibilities while performing hazardous activities on site.
- Other specific training such as First Aid and Confined Space competency training courses, which provided qualifications to Authorised Entrants and Standby Person and Authorised Gas Tester and Entrant Supervisor, were conducted in compliance with legal requirements. Only participants who attended the relevant training and successfully obtained the competency certification were allowed to work in the respective fields.

In 2018, approximately 400 training, on-boarding and induction sessions were conducted with almost 3,000 participants. These sessions covered topics to meet both internal and legal requirements.



*Training sessions were carried out for contractors to ensure they are aware of the relevant hazards and able to mitigate the risks.*

# WHAT WE DID IN 2018

## HSSE CAMPAIGNS, INITIATIVES AND PROGRAMMES

In support of HRC's efforts to raise QHSSE awareness and cultivate individual responsibility, we ran several campaigns and programmes:

**LT 'Turun Padang':** The LT 'Turun Padang' is a weekly Management Team HSSE walkabout that promotes visible safety leadership and serves as a check on the current health of our HSSE standards implementation on site. Leaders also use this event as an opportunity to engage with staff and contractors on HSSE matters.

**Daily Goal Zero Walk:** Daily Goal Zero walks are centered on four different themes - Process Safety Field Observation, Permit to Work & HSSE, Ensure Safe Production and Process Isolation and Reliability, arranged for the walk each day of the week. An online database is set up to capture and consolidate findings from Goal Zero walks. These findings are analysed monthly to identify HSSE areas of improvement.

**Just Intervene:** The Just Intervene campaign was launched in January 2018. The campaign is aimed at creating a culture of intervention on site to keep each other safe and prevent potential incidents. Pursuant to the campaign, HRC recorded an increase in unsafe act intervention from 11 per cent in 2017 to 34 per cent in 2018, indicating an improved intervention culture. We are working on increasing the number of activities for this campaign and will eventually integrate these activities as part of our site's routine practices (such as toolbox sessions, meetings, walks, MTA activities and projects).

### HRC 2 MILLION MANHOURS CELEBRATION

HRC organised a safety milestone event on 25 January 2018 to celebrate 2 million LTI-free manhours as at 30 December 2017. Two board members attended the event together with approximately 350 attendees comprising employees and contractors.



The 2 million LTI-free manhours celebration was well attended by management, employees and contractor.

**HRC Be Well Programme:** The "Be Well" health and wellness programme was initiated in 2017 and completed its cycle in November 2018 with positive results. Initiatives under these programmes included:

- The "Beat My Weight" programme – Participants of the programme recorded a combined weight loss of 271kg. Three workers, who were declared unfit to work at the start of the programme were certified as fit employees. The programme came to a close at the HRC Run 2018 held on 12 December 2018 which also celebrated the 5 million manhours without LTI milestone.
- A "Be Well Day" held on 19 March 2018 hosted many exciting health related programmes, such as inspirational session with a lung cancer survivor, "Test Your Carbon Monoxide content", Quit Smoking launch, lung function assessment, an obstacle race, blood donation and many more.



The HRC Run 2018 was held in conjunction with the celebration for 5 million LTI-free manhours.

**The Caring Team:** The Caring Team was formed as part of our "Be Well" programme, with the aim of extending aid to those who are stressed. The team consisted of employees who have the following skills and attributes: trustworthy, empathy, an enabler, good observation and listening skills, as nominated by their managers. The Caring Team was tasked with identifying staff who were stressed and escalating the matter to the Company's health focal point where the situation requires.



## 2018 MAJOR TURNAROUND INITIATIVES AND PROGRAMMES:

**Hazard Recognition Card:** The NMPI card was established in August 2018 for contractors and was widely used during MTA 2018 as an in-situ reporting tool in hot-spot areas. The NMPI cards acted as a medium to track the intervention culture and as a feeder for HSSE weekly weak signal analysis to prevent accidents. In addition, reporting was made easier as the submitter could opt to illustrate their findings accordingly through drawings. Limited NMPI “pink” cards were awarded to workers who possess good attitudes to safety culture and safety leadership to qualify for attractive prizes during the 2018 QHSSE and MTA 2018 Lucky Draw on HRC’s Appreciation Day.

**Kick-off Safety Campaign:** The Kick-off Safety Campaign was conducted twice to mark the beginning of all Turnaround HSSE programmes and to prepare the workforce for upcoming events. Key highlights for the campaign included the launch of a culture of intervention – “Just Intervene”, Personal Protective Equipment (PPE) Compliance, and the Reward & Penalty system during MTA 2018.

**The “5IVES” Safety Campaign:** The “5IVES” Safety Campaign was jointly organised by HRC and contractor partners on 24 and 25 August 2018. Five focus areas were emphasised:

- Using the right tools for the job
- Line of fire
- Intervention through NMPI
- PPE Compliance
- Risk Assessment

**“Just Intervene” Refresher:** This second safety campaign held on 12 and 13 September 2018 reinforced the “JUST INTERVENE” culture. The event focused on further encouraging and refreshing the participants’ awareness about the importance of intervention in safety.

**“Take 5! Let’s End Well”:** Held in October 2018, this campaign focused on maintaining high safety standards and avoiding complacency. Personnel were reminded to be vigilant as learnings from previous turnaround activities and other industry incidents showed that workers tended to lower their guard and relax on safety adherence as site progress approaches scope completion.

### “Anugerah Zon Paling Selamat” (The Safest Zone Award):

The Anugerah Zon Paling Selamat was initiated during MTA 2018. This weekly award programme was designed to instill a positive competitive spirit amongst contractors. The zone which obtained the highest points after cross-function audits by safety personnel of the contractor and HRC’s QHSSE team was awarded a “Green Flag Zone”, an indication that it was ‘the safest zone’ for the week.

**HRC MTA 2018 Appreciation Day:** In September 2018, special awards, including the Best HSSE Contractor Award, NMPI Heroes, Anugerah Zon Paling Selamat and lucky draw prizes were given to employees and contractors to recognise the good work done during MTA 2018.

**HRC Thanking You Day:** To celebrate and thank the staff and contractors for the success of MTA 2018, the “HRC Thanking You Day” was held on 9 October 2018. Another round of awards were given for Best HSSE Contractor Award, MPI Heroes of the month and ‘Anugerah Zon Paling Selamat’ winners.

### HRC Run 2018 – 5 Million Manhours Without LTI:

HRC hosted the HRC RUN 2018 on 12 December 2018 in conjunction with and to commemorate HRC’s successful achievement of 5 million safe manhours without LTI in October 2018 (a significant 27-month gap from the last LTI in July 2016). The event hosted two categories – a 3.5km and 7km run where employees, contractors and their family members were invited to participate.

## HIGHLIGHT

### SYSTEMATIC OCCUPATIONAL HEALTH ENHANCEMENT LEVEL PROGRAMME

HRC consistently and actively participates in campaigns hosted by the DOSH. During the DOSH Negeri Sembilan System, Occupational Health Enhancement Level Programme (SoHELP) Phase 2 closing event in July 2018, we received an award for attaining Level 5 achievement, which was the highest level, and was invited to present our best practices for the chemical category to all state industry players. HRC was also chosen by the State DOSH to represent Negeri Sembilan in the 2018 SoHELP National Convention to share our best practices at a national event.



## PROVIDING RESOURCES AND SUPPORT

Located 11 km away from the HRC refinery, HRC sponsored a construction cabin which was transformed into a mini library in 2014 and has since become a gathering point for the native children from Kampung Orang Asli Sunggala, Port Dickson. Since its launch 4 years ago, the mini library has offered these children an opportunity to read, learn and study in a safe and comfortable environment. Every Thursday afternoon, the ladies of PDWA visit to in-house tutorials with them.

**“This is truly a good effort from both HRC and PDWA and it further proves that capacity building should start from early childhood education.”**

Madam Sarah Rajoo, President, Port Dickson Women’s Association (PDWA)







## ENVIRONMENTAL SUSTAINABILITY

We monitor and manage our environmental footprint continually to minimise negative environmental impacts from our operations. In line with HRC's HSSE Policy, our effluents, waste, gas emissions, water usage and energy consumption are handled in the most environmentally friendly and efficient manner that we can to preserve the environmental sustainability of the refinery and the community.

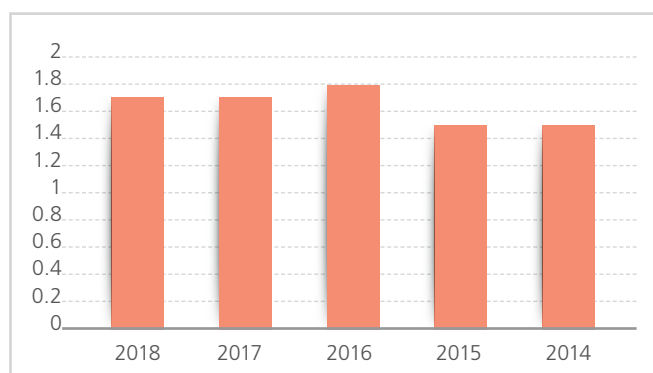
We comply with Malaysia's environmental legislations and related international conventions and protocols, and endeavour to follow stringent environmental standards set by relevant local and international bodies whenever possible.

In March 2018, we became the proud recipient of the Prime Minister's Hibiscus Award for Exceptional Achievement in Environmental Performance for the years 2016 / 2017, a recognition of our environmental efforts. We continue to dedicate significant resources to environmental management.

### Water and Effluents

Water is vital for our refinery operations as it is used to generate steam and utilised for cooling and cleaning purposes. We take all necessary measures to ensure that our water intake is no more than what is critically necessary to operate the refinery. Our refinery is equipped to recover condensate from steam which is then recycled into the boiler feed water. The amount that is recovered varies depending on the process conditions, crude type and other factors.

**Refinery Raw Water Consumption (Million m<sup>3</sup>)**



We optimise raw water consumption throughout the Company's operations. As the graph shows, raw water consumption has remained relatively consistent for the past five years, with slight fluctuations due mainly to overall refinery processing requirements.

Under HRC's Business Continuity Plan (BCP), procedures have been put in place to manage any disruptions to the refinery. The BCP allows the plant to continue running even after critical business process interruptions that arise from internal or external water supply failures. BCP procedures are triggered in the event of any unplanned water disruption such as uncontrollable incidents involving external / state infrastructure failure, natural disasters, internal asset failure or IT system failure and sabotage.

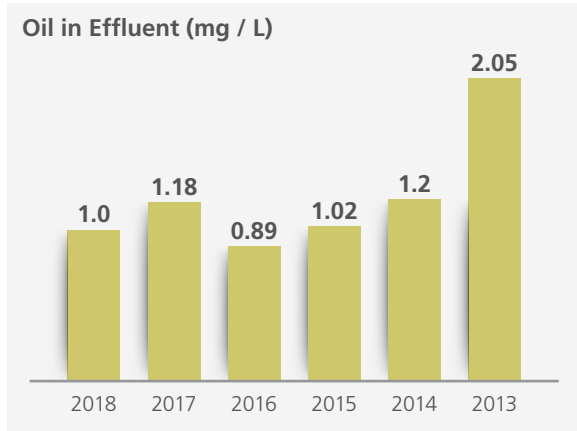
Our dedicated BCP team holds regular meetings to review and update the BCP by identifying current situations, reviewing and closing gaps, identifying business and technical focal points and conducting relevant BCP workshops. BCP scenarios are also tested periodically for effectiveness.

In 2018, we experienced water supply cuts on several occasions due to external infrastructure failure. The BCP measures were successfully triggered during each event and avoided any disruption to operations.

Our Effluent Monitoring Programme provides measures to closely monitor treated effluent water (ie water that is no longer usable or recyclable) and sea water quality. We manage the quality levels of the effluents and sea water within the prescribed limits of the DOE Standard B limit under the Environmental Quality (Industrial Effluent) Regulations 2009 and the Marine Water Quality Standards (MWQS), respectively. The detailed data is disclosed to DOE on a monthly basis.

**KEY HIGHLIGHTS**

The average oil in water concentration of our Company's effluents in 2018 was 1.0 mg/L against the legislative limit of 10 mg/L. We managed to achieve a yearly reduction by 10.4 per cent on average since 2013, with a total reduction of 15.3 per cent from 2017 and 51.2 per cent in 2018 when compared to the 2013 levels.



In 2018, the combined treated effluent and sea water quality levels were found to be well within the prescribed regulatory and quality standards limits.

**Targets**

Improve the overall treated effluent and water quality levels

**2018 Activities**

- Commissioned a comprehensive effluent system study conducted by a third party consultant from The Netherlands who is an expert in Refinery Drainage and Effluent Treatment Facilities.
- Improved maintenance exercise on drainage and interceptors to ensure all current facilities are functional and operational at optimum efficiencies.
- Construction and modification of all three cleaning bays to ensure that they are equipped with the right design of drainage systems such as sludge traps and sump pits in preparation for MTA 2018.
- Installation of three Mobile Corrugated Plant Interceptors at all three cleaning bays which will further treat the effluent by separating oil and sludge at the source of generation during MTA 2018.
- Conducted regular maintenance programmes throughout MTA 2018 to ensure that all systems are working with optimum efficiency.
- Established additional internal effluent monitoring programmes as an assurance to the effluent management systems in place.



Routine operational inspections are conducted regularly to ensure all systems are working with optimum efficiency.



### Waste Management

HRC strives to reduce or eliminate the discharge of waste materials that negatively impact the environment and administer our waste management responsibly.

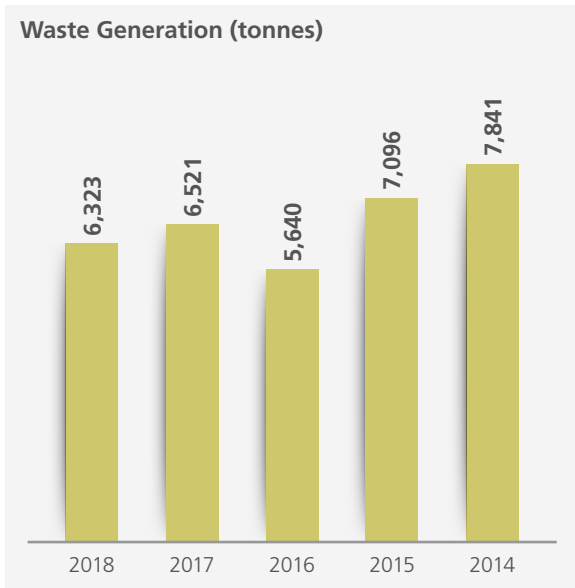
The main wastes generated from our operations are spent oil-water emulsion, effluent treatment plant sludge and spent catalysts from LRCCU. We engage only government approved and licensed contractors to treat and safely dispose all hazardous wastes.

In our efforts to minimise the need for disposal services, we consistently look for ways to reduce, recycle or recover generated waste.

#### KEY HIGHLIGHTS

In 2018, 6,323 tonnes of hazardous waste was generated. Out of this total, 70.0 per cent of the waste was recycled and recovered, while the remaining waste was disposed at a DOE approved facility. As a result of our initiatives in 2018, total waste generated reduced by three per cent from 2017. It was also below the five-year average of 6,430 tonnes of waste generated in previous years despite undergoing MTA 2018.

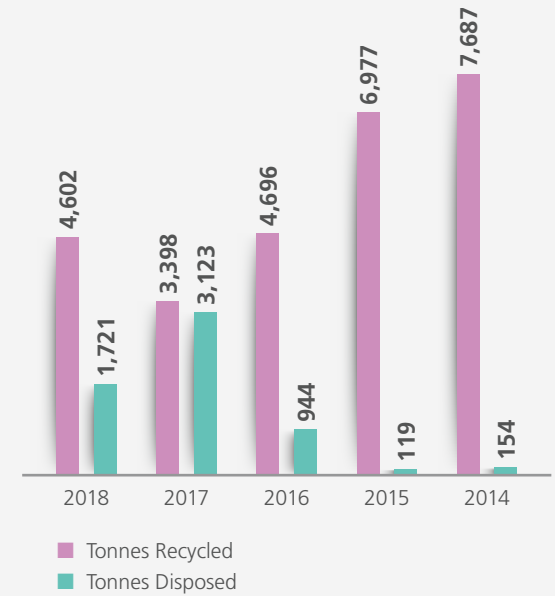
In terms of waste generated per million barrels, we observed substantial improvements for MTA 2018 when compared to the previous MTA in 2015. Waste generation from the MTA decreased by 7.3 per cent from 209.3 tonnes/mln bbl in 2015 to 194.0 tonnes/mln bbl in 2018.



Our recycling performance in 2018 saw consistent improvement as a result of the Company's appointment of a cement company in the fourth quarter of 2017 to recycle spent catalyst as raw feedstock for cement production.

It is important that our vendors and suppliers have stringent measures in place for safe and efficient waste management just as we do. Prior to their engagement, we conducted a site visit to the cement company to ensure that adequate procedures are in place for the hazardous component from the spent catalyst to be fully combusted in their kiln without leaving any residue. In addition, the cement company had also put in place a scrubber to ensure that any release of hazardous gas from the process is treated before release to the atmosphere.

#### Recycled and Disposed Hazardous Waste



#### Target

Consistently look for other ways to reduce, recycle or recover generated waste

#### 2018 Activities

Conducted regular reviews of the performance of the recovery and treatment facilities to ensure that all waste generated by HRC is managed in a responsible manner with minimal or no impact to the environment and in accordance to the relevant laws and regulations.

 **Gas Emissions**

HRC acknowledges the urgency and necessity for global efforts to mitigate climate change. GHG has been identified as the most significant contributor to climate change over the last few decades. Key GHG include carbon dioxide (CO<sub>2</sub>), methane and nitrous oxides. Among these gases, CO<sub>2</sub> is by far the most prevalent and the major contributor to current worldwide GHG emissions. CO<sub>2</sub> is released as a result of chemical reactions, in particular, from the burning of fossil fuels for energy generation and transportation. We are committed to manage our GHG emissions by improving energy efficiency and integrating GHG emissions management into our business activities.

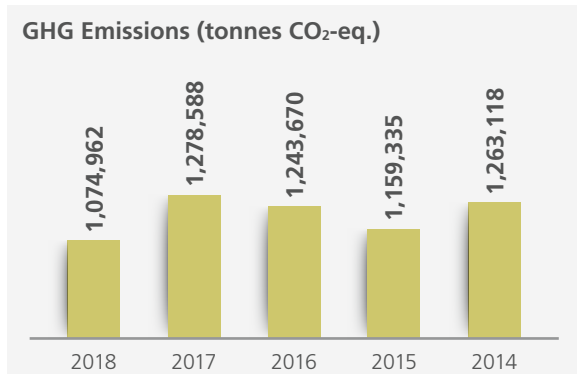
Our team continuously works to reduce and control gas emissions and promote activities to reduce major environment pollution. Further, we maintain and report emission inventories, undertake projects to manage operating emissions and apply innovative technologies to improve the energy efficiency of our operations.

We use the methodology outlined in the API Compendium of Greenhouse Gas Emission Methodologies for the Oil and Natural Gas Industry 2009 and ISO 14064-1 to calculate our gas emissions. HRC’s GHG emissions include direct GHG emissions from stationary combustions, flaring, process and fugitive emissions together with indirect emissions arising from the use of imported electricity. Indirect emissions from the use of imported electricity are measured as CO<sub>2</sub> equivalent emissions.

**KEY HIGHLIGHTS**

In 2018, we saw an overall reduction in gas emissions, the lowest since 2012 due to a decrease in refinery operations during MTA 2018 which occurred between August to October 2018.

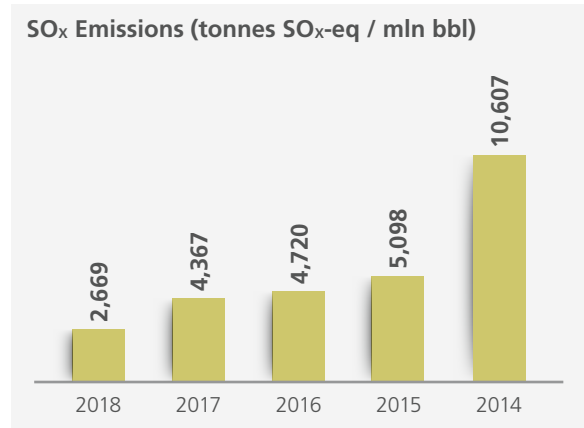
GHG emissions in 2018 were reduced by 23.0 per cent (1,074,962 tonnes CO<sub>2</sub>-eq) when compared to 2017 (1,278,588 tonnes CO<sub>2</sub>-eq). Our GHG emissions per million barrel produced showed a 2.0 per cent increase in GHG emission per million bbl compared to 2017, at 32,974 tonnes CO<sub>2</sub>-eq. / mln bbl in 2018 due to changes in Global Warming Potential and Electrical Grid Factors.



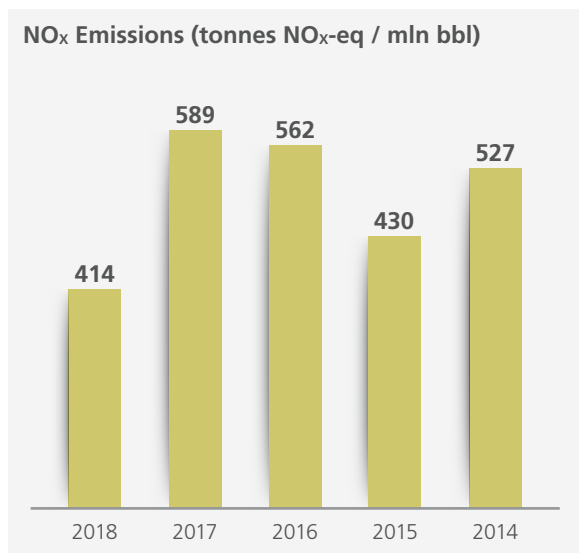
As a progressive step forward, HRC undertook an independent assessment conducted by SIRIM QAS International Sdn Bhd in February 2019 to verify the Company’s GHG emissions in 2018. The audit was successfully completed as per ISO 14064, with many positive observations highlighted, including the use of consistent GHG methodology, appropriate calculation methods, reliable raw data source and secured documentation.

HRC’s sulphur oxides (SO<sub>x</sub>) emissions, which result from the combustion of Sulphur components, are caused mainly by fuel oil used in burners, LRCCU catalyst regeneration (where coke is burnt off for removal from the catalyst and re-used within the process) and the burning of any remaining traces of Hydrogen Sulphide (H<sub>2</sub>S) from the Hydro De-Sulphurisation unit that are unrecovered at the Sulphur Recovery Unit incinerator.

In 2018, SO<sub>x</sub> emissions decreased by 38.9 per cent at 2,669 tonnes SO<sub>x</sub>-eq. as compared to 4,367 tonnes SO<sub>x</sub>-eq. in 2017. Additionally, SO<sub>x</sub> emissions per million barrels produced showed a 26.0 per cent increase in SO<sub>x</sub> efficiency when compared to 81.9 tonnes SO<sub>x</sub>-eq. / mln bbl in 2017 mainly as a result of lower sulphur crudes being processed in 2018.



Our nitrogen oxides (NO<sub>x</sub>) emissions of 414 tonnes in 2018 were 29.7 per cent less than 2017's emissions of 589 tonnes. The NO<sub>x</sub> emissions per million barrel produced showed a 14.4 per cent improvement in NO<sub>x</sub> efficiency when compared to emissions of 12.7 tonnes NO<sub>x</sub>-eq. / mln bbl in 2017, due to a lower LRCCU throughput in 2018.



The successful MTA 2018 resulted in an improvement of the refinery's Energy Intensity Index.

**Targets**

**2018-2019 Activities**

Improve and monitor emission from refinery sources in accordance with the Environment Quality (Clean Air) Regulation 2014

In 2018, HRC made a Final Investment Decision (FID) on the CAR project and commenced construction. When completed, the CAR project will enhance our ability to monitor air quality emissions from our fired heater stacks as well as improve the quality of air emissions from the LRCCU stack and Platformer regenerator.

Produce cleaner fuels and help create a cleaner living environment for Malaysians

HRC is a strong supporter of cleaner fuels (in respect of petrol and diesel) which will result in cleaner air emissions when used. We are currently undertaking the Euro 4M Mogas project, which allow us to produce Euro 4M specification petrol that is cleaner than the current Euro 2M quality by January 2020. We are also in the design stage for the Euro 5 Gasoil Project, which is intended to allow HRC to produce cleaner Euro 5 specification diesel by 2020.

Reduce carbon footprint by minimising GHG emissions from our operations

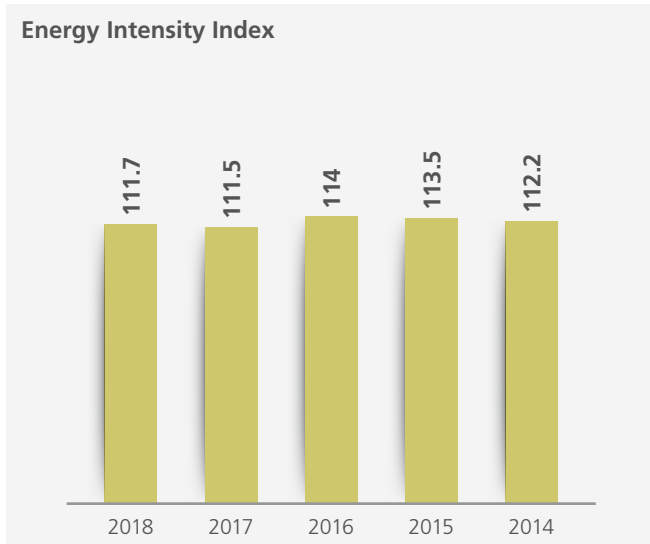
Continuous efforts are made on a daily basis to manage energy efficiently and reduce flaring through the review of the operations energy board. All plant activities are monitored daily and opportunities for energy optimisation are identified for execution where possible. Regular inspection programs for storage and equipment are also in place to ensure that GHG emissions from storage and fugitive emissions are minimised.



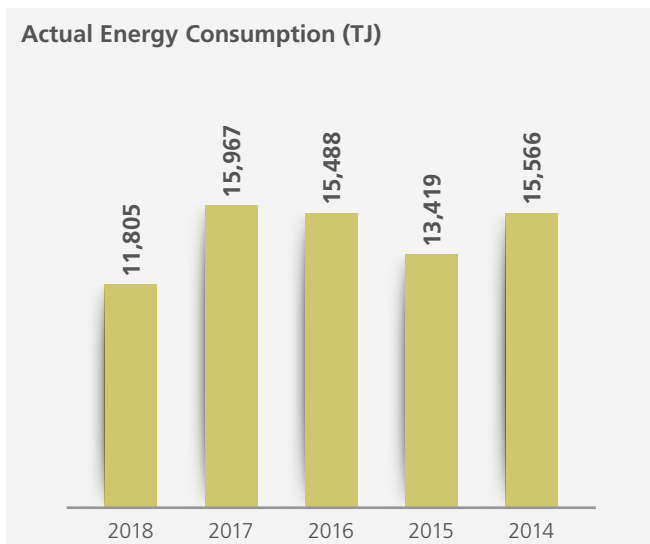
 **Energy**

HRC makes every effort to reduce carbon emissions and operating costs through effective energy management.

We use the Solomon Associates Energy Intensity Index (EII), to actively measure and rank our refinery energy performance by comparing actual consumption against standard consumption. The EII target is set annually and monitored regularly to ensure high overall utilisations, minimum use of fuel oil for power generation and drive EII energy reducing tactics. Our overall aim is to reduce our CO<sub>2</sub> emissions and improve energy efficiency over time.




HRC's energy consumption for the past five years is as follows:



**KEY HIGHLIGHTS**

- Our overall energy efficiency improved tremendously post-MTA 2018, maintaining an average EII of 111.7 for 2018 and registering a four point improvement compared to pre-turnaround. This constitutes energy savings of approximately 45 TJ per month.
- Other projects that contributed to our energy management include the Mega Volt-Ampere Reactive Project for operational improvements, where we identified ways to run the refinery more efficiently by adjusting operational modes to maximise power generation.
- Average fuel gas flaring in 2018 (125.5 tonnes per month) was significantly higher than 2017 (47.1 tonnes per month) due to plant trips, excess fuel gas during the utility boiler statutory inspection and plant startup and shutdown for MTA 2018. Significant efforts were made to identify and arrest sources of fugitive flaring in the refinery to limit wastage.

Target 	2018 Activities
To reduce energy usage and continue to find alternatives to effectively manage energy.	<ul style="list-style-type: none"> <li>• Upgrading of the LRCCU wet gas compressor control scheme to reduce usage of high pressure steam</li> <li>• Reduction of deaerator operating pressure to minimise low pressure steam usage</li> <li>• Cleaned a large number of equipment during MTA 2018 to improve energy efficiency</li> </ul>

## LEARNING FROM INCIDENTS (LFI) – ENVIRONMENTAL – HOW WE ADDRESS, MITIGATE AND PREVENT REPEATS

All environmental incidents are captured and included in our internal LFI process. LFI sessions are conducted to increase the awareness of our people on environmental incidents and implement actions to prevent recurrence. Examples of LFI sessions conducted in 2018 are set out below:

Incident	Immediate Actions Taken	Outcome
1. Hydrocarbon oil seepage detected in soil within Section 5 of the refinery.	<ul style="list-style-type: none"> <li>• Tier-2 Emergency Response Team was mobilised to isolate and recover the spilled hydrocarbon.</li> <li>• Soil and ground experts were engaged to investigate potential causes of hydrocarbon seepage and recommend ways to prevent recurrence of such incident.</li> </ul>	Experts recommended that we upgrade the product recovery facility at the area.
2. Three effluent water parameters of chemical oxygen demand (COD), biological oxygen demand (BOD) and total suspended solids (TSS) were reported to have exceeded the compliance limit during MTA 2018.	<ul style="list-style-type: none"> <li>• Screw pump discharges to sea were isolated and an investigation was conducted to identify the potential source of excursion.</li> <li>• Corrective actions were taken to ensure that proper draining and frequent maintenance were conducted throughout the MTA 2018.</li> <li>• Discharge sample was sent to an external DOE accredited lab for testing.</li> <li>• Daily robust maintenance and close assurance programmes were installed to ensure legal compliance of effluent limits.</li> </ul>	<p>The actions taken resulted in the following week's effluent test results having parameters far below the regulatory limit.</p> <p>The DOE acknowledged the immediate actions taken by HRC.</p>
3. Effluent water monitoring parameters recorded a high COD reading due to abnormally high water level from crude tank draining.	<ul style="list-style-type: none"> <li>• Water was transferred to a subsequent tank to isolate the contaminated water.</li> <li>• Effective draining was performed with an additional monitoring point for effluent put in place.</li> </ul>	Effluent water quality improved in the next two days and was well below the regulatory limit.
4. Effluent water recorded high TSS for the sample collected on 17 December 2018, with a reading of 142 mg / L exceeding the DOE limit of 100 mg / L.	<ul style="list-style-type: none"> <li>• Although there was no direct cause linked to the incident and internal monitoring results consistently showed a low TSS, additional improvements, such as effluent parameter monitoring and revision of procedures to include specific actions and responsibilities of all relevant parties, were made.</li> </ul>	<ul style="list-style-type: none"> <li>• The state DOE was informed and updated on HRC's improvement efforts on all other probable causes for the sudden spike on TSS reading.</li> <li>• The following week's result recorded the TSS reading of 6 mg / L, which was within the normal baseline of below 20 mg / L.</li> </ul>



## CASE STUDY

### IMPROVING DOE COMPLIANCE

We incurred a fine of RM6,000 imposed by the DOE over housekeeping items found during an audit. It is significant to note there was no environmental impact and all items were closed within one week.

We launched a proactive environmental assurance programme in 2018 with a more robust and sustainable framework to cover all relevant DOE requirements, including the EIA Conditional Approval Conditions and Written Approvals.

### RESPONDING TO PUBLIC GRIEVANCES

- We received several complaints from residents living near the refinery in relation to the intermittent release of dark smoke from HRC's LRCCU flare unit. The dark smoke was caused by a process upset and dysfunctional control valves, leading to a LRCCU boiler trip. Key members of the community as well as DOE officers were briefed by HRC's Public Information Officer (PIO) on the unplanned incident and its root causes. The whole unit was normalised later on the same day with no further complaints recorded.
- During the 3-month MTA in 2018, public complaints were also received by HRC's PIO on duty in relation to the increased number of cars parked within the residential area near the refinery. We immediately issued multiple notices to contractor vehicles to direct them to the HRC designated parking area. The contractor management team also conducted periodic random checks to ensure that cars are parked at the appropriate places.

### ADDITIONAL ENVIRONMENTAL HIGHLIGHTS

The year 2018 was a milestone year for HRC on many fronts. Here are some key highlights showcasing our progress as we reinforce our commitment to safeguard asset integrity and deliver continuous and sustainable QHSSE excellence.

- HRC undertook a major turnaround (MTA) exercise from 6 August to 21 October 2018, as part of the DOSH statutory requirement. The activity is a structured integrity and assurance programme to assess process integrity and equipment safety. The MTA activity was successfully completed two days ahead of schedule and USD4.46 million below budget. MTA 2018 is the largest MTA ever undertaken by the Company.
- The Company was successfully re-certified to ISO 14001: 2015 (Environmental Management System) with no non-conformances and zero opportunities for improvement (OFI).
- We received an appreciation certificate from the DOE for active participation in support of the recent National Environment Day where we hosted our first ever Public Speaking Competition on a national level.
- Our Euro 4M Project construction site hosted two auditors for the Environmental Audit. The audit feedback for February 2018 received 8 positive observations, 2 OFI's and zero NC findings. During the August 2018 audit, HRC achieved zero NCs and zero observations. In addition, the auditors found 14 Best Practices that were being adopted by the Company.



## SPREADING FESTIVE CHEER

Every year, HRC takes the opportunity to celebrate with the local community during the festive seasons. Management and staff make a personal commitment to spread joy and cheer, especially to the underprivileged members of community. 2018's activities range from giving away mandarin oranges to senior citizens in Kampung Teck Lin to distributing 'bubur lambuk' to the public and breaking fast with underprivileged families during Ramadhan. The Company also provided groceries to low-income households in conjunction with Deepavali.

**"It has become a part of our festive tradition to meet and connect with our Port Dickson neighbours."**

David Ronald Keat, CEO, HRC





## SOCIAL SUSTAINABILITY

We care deeply about our employees and the local community, whose support over the years contributed significantly to the refinery’s continued operations. We endeavour to address their concerns, meet their expectations and generate positive social impacts where possible. For our people, who are the foundation of our organisation, we aim to promote an improved quality of life through competitive remuneration, equal opportunity and a conducive working environment. For our fellow Port Dickson residents, we continue to aid the local community through various initiatives and programmes and social project investments.

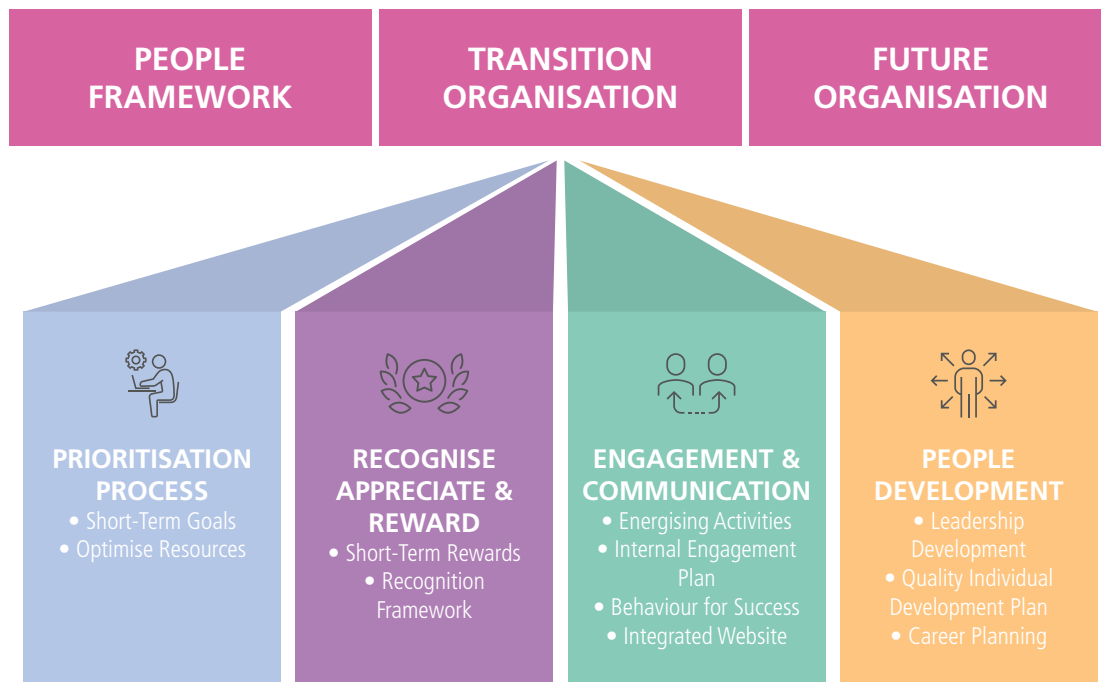
### Employees

The success and sustainability of every organisation depends on its workforce. As such, we work hard to motivate, train and retain our people. Our People Strategy is premised on our core values of Honesty, Integrity and Respect for People.

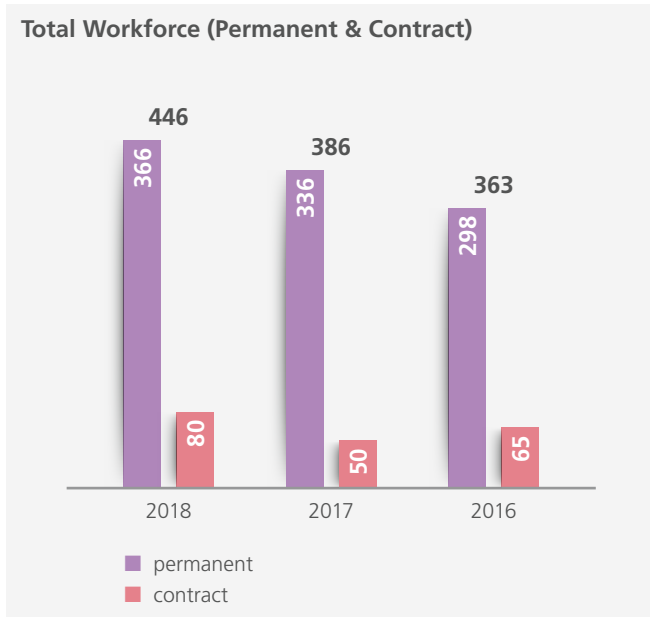
The Deputy Chief Executive Officer provides overall leadership to the Human Resources (HR) department to implement the People Strategy through HRC’s policies and processes.

In 2015, we developed an IPP to focus on developing passionate people, caring leaders and high-trust partnerships. The programme is ongoing. The Management team is responsible for finding ways to implement the IPP work streams and successfully deliver the IPP.

The three IPP core work streams and its four supporting pillars are set out below:



**General Workforce Statistics for HRC**



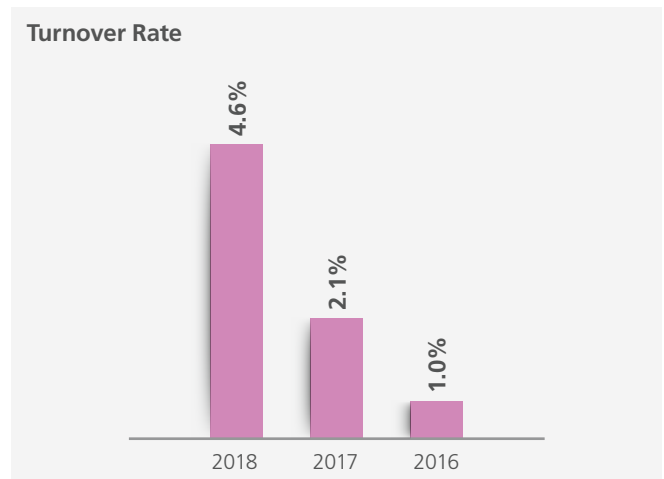
At HRC, we take our responsibility to respect, support and uphold fundamental human rights as expressed in the Universal Declaration for Human Rights and the United Nations Guiding Principles on Business and Human Rights seriously.

As a responsible employer, we strive to adhere to Malaysian employment laws and regulations to ensure that our employees are protected by, amongst others, meeting minimum wages, proper working hours and prevention of child or forced labour.

We are a member of the Malaysian Employers Federation (MEF), the central organisation of private sector employers in Malaysia, which organises consultation and discussion among its members and seeks the adoption of sound principles and practices of human resource and industrial relations.

HRC has a headcount of 446 Company staff and contract employees as at 31 December 2018. Throughout the year, we continued to recruit new employees to fill positions in various departments to cater for business growth and replacement of roles as part of succession planning and project execution.

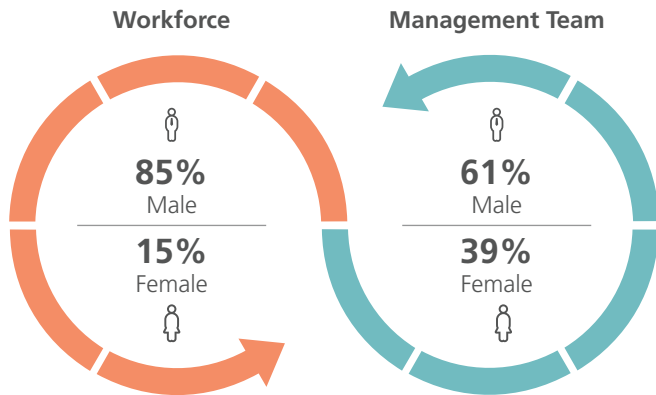
Details of our new hire and turnover rates for 2018 are as follows:



### Diversity and Equal Opportunities

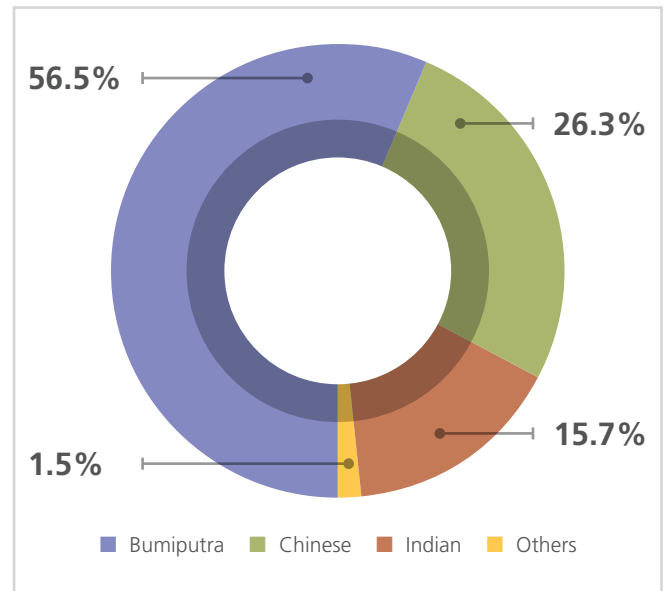
HRC aspires to build a diverse workforce and does not discriminate employees based on race, ethnicity, religion, gender or political beliefs.

The gender diversity in our workforce as at 31 December 2018, is reflected as follows:

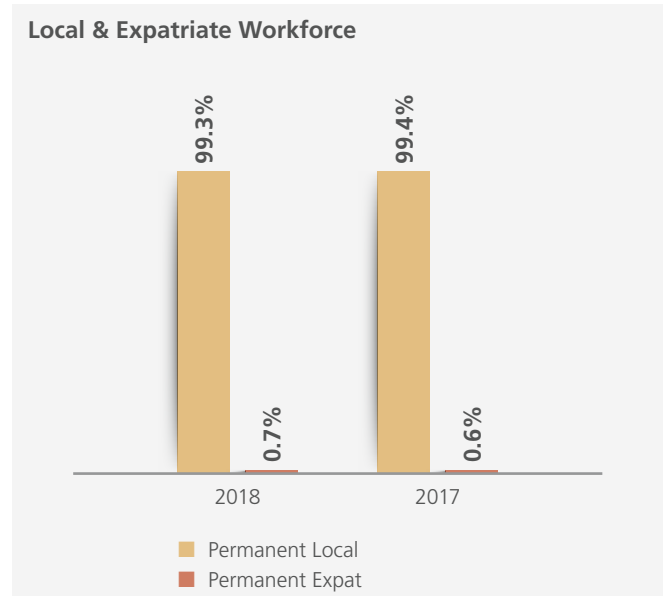


Despite plant operations which are traditionally male-centric, we continue to strive for gender diversity at all levels of the organisation. At present, our workforce comprises 85 per cent male and 15 per cent female employees. At the Management Team level, five out of 13, or 39 per cent, are female.

### Ethnic Diversity 2018

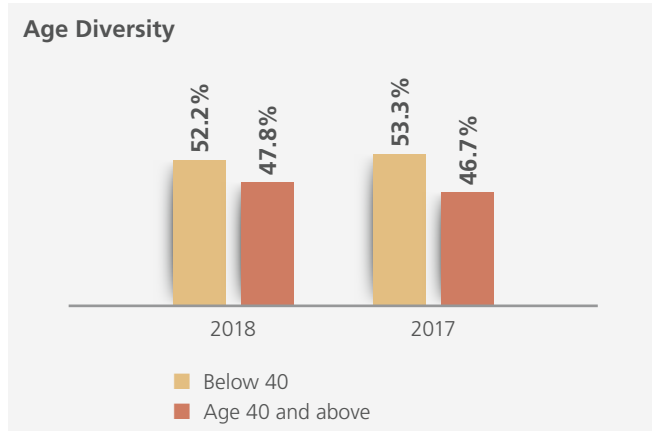


We are proud to say that HRC is built and sustained mainly on local Malaysian talent, who have been nurtured and trained over the years. All major Malaysian ethnicities are represented in our workforce, which is in line with the national demographic statistics. In 2018, we appointed 3 expatriate employees for their extensive skills and experience.





In terms of age demographics, our workforce is well-balanced with 52.2 per cent of our employees under 40 years old. We continue to focus on the training and development of our workforce to build talent for long-term sustainability.




**Recruitment and Retention**

As we grow, our priority to attract and retain talented people remains an essential part of our business performance and long-term strategy. We introduce the Company to the next generation of employees as early as possible through various approaches:

- **HRC Graduates Programme**  
Site specific graduate programmes to support hiring and development of local talent
- **Internship Programme**  
In 2018, we offered 125 trainees practical experience across 11 departments in the Company for a period of six to nine months.

We value our employees by providing competitive remuneration and benefits, that are constantly reviewed in comparison to the industry. Long-service awards are given to reward employees’ commitment and loyalty. Teams or individuals stand to be formally recognised in a weekly “Pride Moment” for their contribution to the Company’s business performance. We also practise a transparent annual performance appraisal process to evaluate work performance.

**Training and Development**

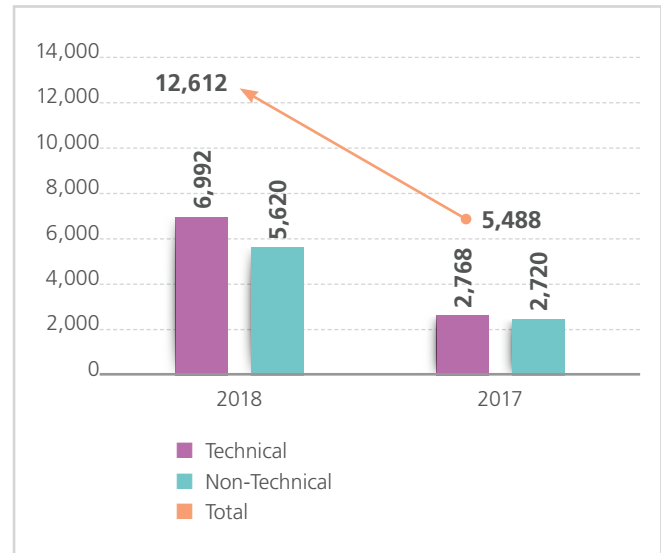
Target 	2018 Activities
To develop and retain a talented workforce	<ul style="list-style-type: none"> <li>• Graduate Program</li> <li>• Identification of critical positions / critical talent</li> <li>• Review of Employee Value Proposition (EVP)</li> </ul>

HRC’s Talent Management team is tasked with attracting, developing and retaining talented employees across our organisation. We invest in people development by providing opportunities for employees to enhance their skills on the job, attend formal training programmes and grow within the organisation.

Training that covers technical issues as well as leadership and personal effectiveness is provided to employees as part of their individual development plan.

The total refinery training hours are as follows:

**Refinery Training Hours**



- The average training hours per employee for 2018 is 35 hours versus 16 hours (stretch goal)
- Technical average training hours per employee is 19 hours
- Softskills average training hours per employee is 16 hours

**Employee Engagement**

**Trade Union**

Under the existing Collective Bargaining Agreement with the Trade Union, the Management and the Trade Union meet on a quarterly basis to discuss and amicably resolve any concerns. The Trade Union consists of 150 HRC employees. In the year 2018, both parties commenced negotiations for the next 3-year-cycle of the Collective Bargaining Agreement which is due to expire in February 2019.

In 2018, the main issues discussed with the Trade Union were:

- conversion of working hours for staff in operations from an 8 hours shift to a 12 hours shift
- the general terms and conditions of employment

**Employee Grievance Mechanism**

We have in place a formal grievance mechanism to address any difficulties and dissatisfaction faced by employees in the course of their employment. Discussions can be addressed formally / informally through line managers or, if unresolved, escalated to the HR Manager, Chief Executive Officer, or both. Our Whistleblowing policy also provides an avenue for employees to raise any complaints against breaches of policies and procedures.

**Harassment**

HRC does not support any form of workplace harassment. Employees are encouraged to report any improper conduct through the employee grievance mechanism described above.

**Employee Engagement Activities in 2018**

We believe in fostering a close working environment in the Company. In 2018, we organised various activities that involved all levels of Management staff and employees, including the HRC Run 2018, team retreats, annual dinners, festive gatherings and MTA 2018 Energiser events described below. These events provide a platform for our management team and employees to bond and interact with each other in informal settings.

The key employee engagement activities organised in 2018 are as follows:

**MTA 2018 Energiser**

As an extension of MTA 2018, the Energiser Team consisted of a group of employees who volunteered to energise and motivate the workforce during MTA 2018. The aim of the Energiser Team was to extend care to all levels of workers involved in the turnaround through activities that focused on:

- **HEALTH, SAFETY AND SECURITY**  
The team partnered with the HSSE department to conduct health and security checks for issues such as fatigue management and abnormal blood pressure.
- **MOTIVATE AND INSPIRE**  
The team embarked on visual encouragement through updates to notice boards and distribution of small rewards such as snacks.
- **FOOD AND BEVERAGE**  
Celebratory meals were held as a reward for achieving MTA 2018 milestones.

**Festive Celebrations - Staff Gatherings**

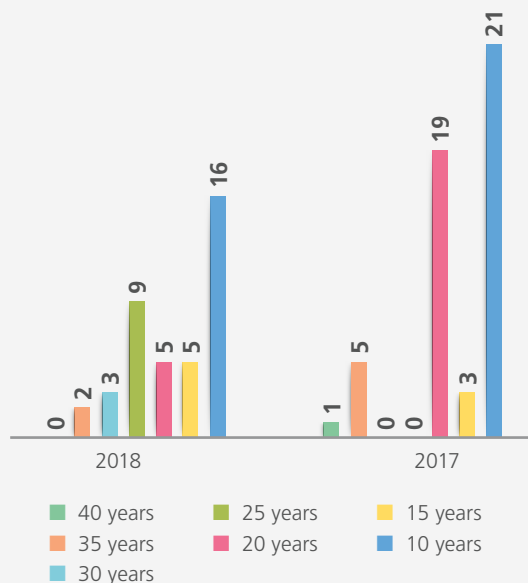
Every year, HRC celebrates cultural festivities with our employees and this has become a consistent opportunity to foster the interaction between management and staff. We organised three festive gatherings in 2018 to celebrate with our employees: festivities for Chinese New Year was held on 2 March 2018, Hari Raya was held on 27 July 2018 and Deepavali was held on 6 December 2018.

**Past, Present and Future**

Our history as a refinery which has been operating in the same location since 1963 embeds us deeply within the local society and we are proud to have employed up to three generations of Port Dickson resident families. A good number of our employees retire after working with HRC for over two decades.

In addition, we have the pleasure of rewarding long-time staff who have been with the Company for more than 10 to 35 years in our annual dinner. In 2018, we honoured a long-term employee who has been with us for 40 years.

**Long-Term Service**



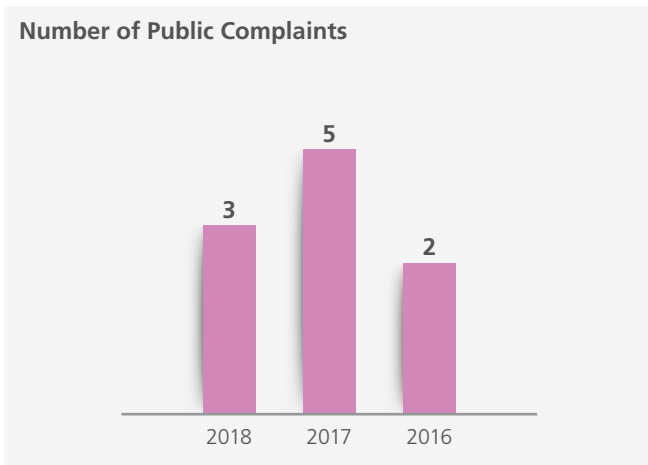
We wish to continue our legacy as a good, responsible and long-term employer to our people and endeavour to improve employment practices wherever possible.



**Local Community**

HRC has always been actively engaged in corporate social responsibility (CSR) programmes to give back to the community impacted by our business.

We have a strong community feedback mechanism to ensure that we address concerns from our neighbours. All complaints received by the Company are fully investigated to ensure that concerns are promptly and properly addressed and mitigated. We commit to attend to complaints within 48 hours after receiving it. Our PIOs on duty, with the support of our Corporate Affairs team, keep in close communication with complainants until a satisfactory feedback has been received and the record can be closed. An example of our practice of responding to public grievances in 2018 can be found in page 41 of this Report.



HRC sponsored various outreach programmes in 2018 to support environmental, social and educational causes in the community we serve. These included contributions towards the Port Dickson Library, Kg Sunggala Children Library, local secondary schools, NGOs, local council outreach activities and expenses for festival celebrations with the community.



A summary of our CSR activities in 2018 is set out in the next page.

# COMMUNITY ENGAGEMENT ACTIVITIES



## Environment

### i) Community Park Cleaning with Chung Hua High School Port Dickson

On 12 August 2018, HRC partnered with 30 students and representatives from Chung Hua High school to clean a community park which is a widely used recreational spot in Port Dickson. HRC sponsored food and beverages for the participants. The event provided an opportunity for students to participate positively in community services and build environmental awareness.

### ii) Beach Cleaning at Blue Lagoon Beach, Port Dickson

HRC and Majlis Perbandaran Port Dickson (MPPD) jointly organised a beach cleaning activity on 26 August 2018 at the Blue Lagoon Beach, Port Dickson. The event was officiated by the Chief Minister of Negeri Sembilan, YAB Tuan Aminuddin Harun. HRC staff as well as 100 community members participated in the cleaning activities. HRC sponsored the expenses for caps and food provided throughout the day. The event aimed at fostering a stronger relationship with the local authority and assisted our efforts to protect the Port Dickson environment.

### iii) Pasar Besar Port Dickson Cleaning Activities

To promote a cleaner environment in the local wet market, HRC collaborated with MPPD to sponsor cleaning tools, such as mops, detergents, brooms and aprons, to help market vendors at the Pasar Besar Port Dickson clean up their premises. Representatives from HRC's Corporate Affairs team attended the one-day event on 7 December 2018.



Students from Chung Hua High School Port Dickson participated in the community park clearing.



## Social

### i) Port Dickson Women's Association (PDWA) – Orang Asli Library

As part of HRC's long-term CSR programme, we have been working alongside the PDWA to provide support for the Kampung Sunggala families. The Company set up a library in 2014 for the children to provide access to learning and reading materials. The facilities have also been used as classrooms and study areas. We provide support and maintenance for the facilities to ensure a safe and comfortable environment for the children. On 19 May 2018, HRC, PDWA and the children participated in clean-up activities for the surrounding areas and witnessed the installation of a new air-conditioner in the library.

### ii) Annual Contribution to Yayasan Munarah Negeri Sembilan (Munarah Foundation)

HRC has been supporting the Yayasan Munarah Foundation for many years and continued to do so in 2018 during a cheque presentation in the presence of the Duli Yang Maha Mulia Yang Di-Pertuan Besar Negeri Sembilan on 27 November 2018. We continue to foster good relationship with officials in the state of Negeri Sembilan, where our refinery operations are based. HRC's CEO and government officials attended the cheque presentation ceremony.

### iii) Festive Celebrations

As part of HRC's annual CSR initiative to spread festive joy to the community, HRC organised the following events:

#### Mandarin Oranges Distribution to Senior Citizens in Kampung Teck Lin

HRC partnered with its fenceline community, Kampung Teck Lin to send Chinese New Year greeting and wishes to the senior citizens of the village together with mandarin oranges and peanuts. HRC's representatives from Corporate Affairs, Finance and QHSSE were involved in the gifting, which benefited more than 20 households in the village.



30 children and their families were invited to a 'Buka Puasa' event during the fasting month. HRC also distributed household essentials to the families.

**Bubur Lambuk distribution**

On 1 June 2018, in conjunction with the month of Ramadhan, HRC collaborated with a state-owned television Islamic channel in Malaysia to distribute over 600 packs of Bubur Lambuk to the Port Dickson residents at several stations.

The event received overwhelming support and help from the Company's employees in the food distribution and the gesture was well received by the local communities.

**Buka Puasa with Families in Need**

HRC hosted its annual breaking-fast dinner, also known locally as 'Buka Puasa', with underprivileged families in Port Dickson. This year, the Buka Puasa gathered around 30 children from six families together with the fenceline community leaders and representatives of local authorities, HRC's management team members and staff to join the event.

**Deepavali Food Distribution to Low-Income Households**

As part of its annual festive celebration events, HRC organised a food care pack distribution to underprivileged Indian families in Port Dickson to aid their Deepavali preparation. The items included rice, sugar, daily necessities and monetary support for each family. Our staff, led by the Management team, formed into four groups to visit and distribute food to more than 10 families.



**Education**

**i) Academic Excellence Award sponsorship in Kampung Gelam**

HRC contributed to the Village Development and Security Committee fund of Kampung Gelam to recognise and reward outstanding students from its village who received excellent results for their PT3 and SPM examinations.

**ii) Pertandingan Pidato Alam Sekitar**

In conjunction with the DOE's Hari Alam Sekitar Malaysia, HRC sponsored the "Pertandingan Pidato Alam Sekitar", a national public speaking competition, on 21 October 2018. Officiated by the Deputy Minister of the Ministry of Energy, Science, Technology, Environment and Climate Change (MESTECC), the event was attended by over 200 attendees including MESTECC officials and participants from different states across Malaysia.



Students from across Malaysia participated at the national public speaking competition sponsored by HRC.

## WE VALUE YOUR FEEDBACK



By integrating sustainability elements into our business operations and management, and linking our sustainable goals into our strategic plans, we seek to realise a holistic approach to our long term sustainability and work towards being acknowledged as a sustainable brand.

The viewpoints and insights presented in this Report are based on internal evaluations which may vary from other analysis, as well as trending reports available on the various disciplines relevant to our industry. The information presented is nevertheless provided in the best interests of our various stakeholders and every possible effort is made towards achieving the highest level of accuracy.

We aim to develop our sustainability goals and strategies further with the benefit of collaborative discussions and engagements with our stakeholders. We appreciate your feedback and welcome all comments and suggestions on our sustainability practices and reporting.

Write to us:

**Corporate Affairs Department**  
Hengyuan Refining Company Berhad  
Batu 1, Jalan Pantai,  
71000 Port Dickson  
Negeri Sembilan, Malaysia

Alternatively, email us at  
[hrcpd-corporate-affairs@hrc.com.my](mailto:hrcpd-corporate-affairs@hrc.com.my)

## ACRONYMS & ABBREVIATION

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<b>ABC</b>	Anti-bribery and corruption	<b>LFI</b>	Learning from Incident
<b>AIA</b>	Asset Integrity Assessment	<b>LOD</b>	Line of Defence
<b>APEC</b>	Asia-Pacific Economic Conference	<b>LPG</b>	Liquefied Petroleum Gas
<b>APIC</b>	Asia Petrochemical Industry Conference	<b>LRCCU</b>	Long-Residue Catalytic Cracking Unit
<b>API</b>	American Petroleum Institute	<b>LTI</b>	Lost-Time Injury
<b>bbbl</b>	Barrel	<b>mln</b>	Million
<b>Code</b>	Code of Conduct	<b>MPPD</b>	Majlis Perbandaran Port Dickson (Port Dickson Municipal Council)
<b>CO<sub>2</sub></b>	Carbon Dioxide	<b>MTA 2018</b>	Major Turnaround 2018
<b>DOE</b>	Department of Environment	<b>NC</b>	Non-Conformance
<b>DOSH</b>	Department of Occupational Safety & Health	<b>NMPI</b>	Near Miss and Potential Incident
<b>EII</b>	Energy Intensity Index	<b>NO<sub>x</sub></b>	Nitrogen oxides
<b>EHS</b>	Environmental, Health and Social	<b>OHSAS</b>	Organisational Health and Safety Assurance Standard
<b>EMT</b>	Emergency Management Team	<b>PIMMAG</b>	Petroleum Industry of Malaysia Mutual Aid Group
<b>ER</b>	Emergency Response	<b>PIO</b>	Public Information Officer
<b>ESG</b>	Environmental, Social and Governance	<b>PPE</b>	Personal Protective Equipment
<b>FiRM</b>	Fire, Rescue and Medical Team	<b>PQ</b>	Product Quality
<b>GHG</b>	GreenHouse Gas	<b>PQI</b>	Product Quality Incident
<b>GRI</b>	Global Reporting Initiative	<b>PS9F</b>	Process Safety 9 Fundamentals
<b>GSR</b>	Guided Self-Regulation	<b>PSE</b>	Process Safety Event
<b>HGBP</b>	Hengyuan General Business Principles	<b>PTIE</b>	Proactive Threats Identification Elimination
<b>HR</b>	Human Resources	<b>QHSSE</b>	Quality, Health, Safety, Security and Environment
<b>HRC</b>	Hengyuan Refining Company Bhd	<b>SoHELP</b>	Systematic Occupational Health Enhancement Level Programme
<b>HSSE</b>	Health, Safety, Security and Environment	<b>SO<sub>x</sub></b>	Sulphur oxides
<b>HSSE &amp; SP</b>	Health, Security, Safety, Environment and Social Performance	<b>TRCF</b>	Total Recordable Case Frequency
<b>ICS</b>	Incident Command System		
<b>IPP</b>	Integrated People Plan		
<b>ISO</b>	International Standards Organisation		
<b>KPIs</b>	Key Performance Indicators		

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