

HERE TO STAY HERE TO GROW



2019 SUSTAINABILITY REPORT

Hengyuan Refining Company Berhad

Registration No. 196001000259 (3926-U)

WHAT WE DO



Set up in 1960 and operational since 1963, Hengyuan Refining Company Berhad (HRC or the Company) operates as one of the most established and reliable refiners in Malaysia. Our oil refinery in Port Dickson, Negeri Sembilan has played an integral role in the nation's oil and gas industry. Every day, we process crude oil from Malaysia and all over the world to deliver up to 156,000 barrels of petroleum products to customers in Malaysia and within Southeast Asia.

Our main business activities are focused around operating and maintaining our refinery and supplying our customers through three channels: the multi-product pipeline to the Klang Valley and KLIA, our truck loading gantry for local customers (Negeri Sembilan) and exporting products to vessels through our jetty.

Our comprehensive range of petroleum products includes liquefied petroleum gas (LPG), petrol, jet fuel, diesel, fuel oil components, sulphur and chemical feedstocks (such as light naphtha and propylene).



This is HRC's third Sustainability Report (Report).

The Report focuses on our sustainability performance, the various challenges we faced in 2019 and strategies we have put in place to support the economic, environmental and social (EES) values that impact our people, stakeholders, the community around us and the environment. We are committed to provide clear and transparent disclosures on key activities carried out at our refining operations in Port Dickson from 1 January 2019 to 31 December 2019.

This Report is 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 (UN) Sustainable Development Goals (SDGs).

This Report should be read together with HRC's Annual Report 2019 (AR2019) for a comprehensive overview of the Company's overall financial and non-financial performance for the year under review.

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We Value Your Feedback Glossary

HRC BOARD SUSTAINABILITY STATEMENT 2019

Here to Stay and Here to Grow

Hengyuan Refining Company Berhad is committed to shaping a sustainable future as an energy and petrochemical company and fulfil our purpose 'To Power Human Connections'. This purpose permeates our commitment to sustainability and cascades through the way we operate, work and build relationships within the community and with our stakeholders.

As an iconic landmark in Port Dickson, our refinery is embedded in the economic and social fabric of the district. We work very hard to be a responsible corporation with the smallest possible environmental footprint while making positive contributions to the state and national economy. At all times, we hold ourselves to the highest ethical and governance standards. We commit to be a workplace of choice, where employees feel safe, fulfilled and are empowered to build skills and grow their careers. We give back to the community through employing local employees and engaging local vendors where possible, and provide social investments to the Port Dickson community via our Corporate Social Responsibility programmes.

Our business model is built around creating and delivering long-term value for:



We are aware that our sustainability journey is an on-going effort and we are committed to deepening and extending our sustainability roots while pursuing our vision to be a leading global energy and petrochemical company, pioneering sustainable solutions.

THE BOARD

Hengyuan Refining Company Berhad

2019 KEY SUSTAINABILITY HIGHLIGHTS



ECONOMIC

- First oil and gas and chemical plant in Malaysia to be certified for ISO 37001: 2016 Anti-Bribery Management Systems.
- Migration of ISO 17025: 2017 Testing and Calibration Laboratories to the new 2017 certification.
- Awarded 92 per cent of contracts to local suppliers, a 5 per cent increase from 2018.
- Successfully hosted Exercise Merbok VII – a large scale Tier-3 emergency response event – in collaboration with the Port Dickson District Office with joint participation of 10 agencies from across Malaysia.
- Established a Mutual Aid Agreement with a local oil and gas company.
- Zero fatalities track record for over 26 years.
- Achieved 10.1 million manhours without a Lost Time Injury (LTI) by the end of 2019.
- Winner of the National Council of Occupational Safety & Health (NCOSH) Award 2019, a prestigious national level award in the category of Major Industries – Petroleum / Gas / Chemicals.



ENVIRONMENT

- Successfully completed the Clean Air Regulations (CAR) project to become the first refinery in Malaysia to comply with Environmental Quality (Clean Air) Regulations 2014 (CAR 2014).
- Waste generation decreased by 1.43% compared to 2018.
- Recycled and recovered 99.7 per cent of total hazardous waste.
- Disposal rate reduced by 98.7 per cent, from 1,721 tonnes in 2018 to 22 tonnes in 2019.
- Greenhouse Gas (GHG) emissions per million barrels produced in 2019 showed 8.5 per cent improvement in carbon efficiency.



SOCIAL

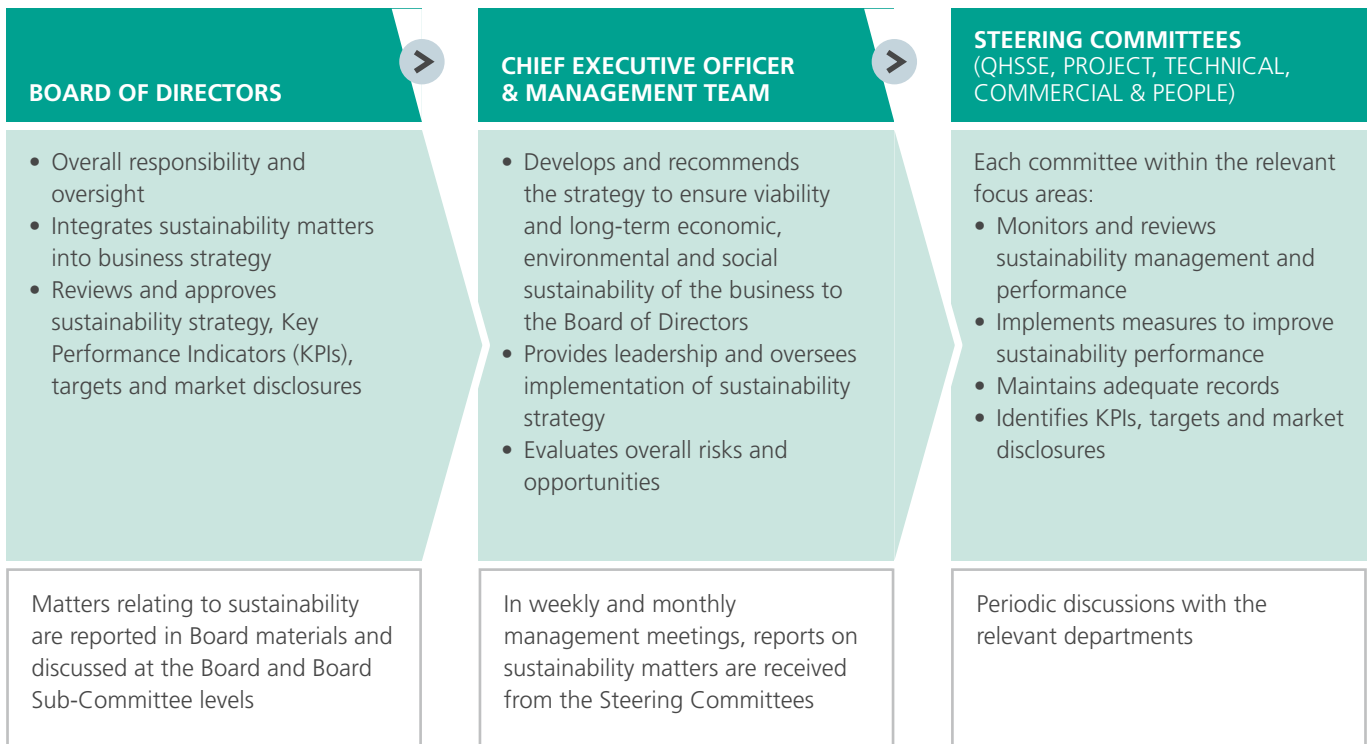
- Finalist for the 'Be Well Program 2018' in the Corporate Wellness category at the HR Excellence Award held in Kuala Lumpur in October 2019.
- Achieved a record high 90 per cent participation in the HRC Employee Engagement Survey.
- Renegotiated and signed a three-year Collective Agreement with the Trade Union in June 2019 towards enhancing employee work / life balance and on-site maintenance productivity.
- Received the Workplace Promotion (WPP) Health Award during the Malaysian Society for Occupational Safety & Health (MSOSH) Award Program 2019.

OUR GOVERNANCE FRAMEWORK

Our approach to strengthen our sustainability governance framework is by integrating HRC’s overall business strategy with our responsibilities to our various stakeholders. We do so with a defined framework structure, well developed policies, procedures and processes in line with adequate systems to manage risk and compliance.

The Board of Directors has strategic influence and oversight over all sustainability matters which are effectively managed across various levels in the Company.

How Sustainability is Managed and Governed



Risk Management

Risk is a strong driver on how we operate our refinery in Port Dickson in a safe, efficient and economical manner. With a transparent governance culture and sound internal controls, our Company is better positioned to manage risks and opportunities arising from EES impacts.

Sustainability risks and opportunities are identified, assessed and managed through HRC’s Enterprise Management processes and HRC’s Control Framework which form part of our risk management framework. Potential risks are tracked in HRC’s risk register and reviewed on a quarterly basis, to assess their severity and the actions required to be taken.

The Board has oversight and reviews the effectiveness of HRC’s risk management and internal control processes. The Board Audit Committee (BAC) and the Board Risk Management Committee (BRMC) support the Board to ensure adequate internal controls, risk identification and mitigation plans are in place. Respective functions in the Company also play a key role in ensuring risks are managed in their area of business.

▶ Further details on HRC’s risk management framework are in the Company’s Statement on Risk Management and Internal Control in page 63 of the AR2019.

STAKEHOLDER ENGAGEMENT

Maintaining responsive channels with our stakeholders is key to our sustainability strategy. We communicate and collaborate with our stakeholders regularly through various arrangements to better identify and assess material sustainability issues. This process also enables the Company to prioritise strategic decisions and the direction of the business to manage the reasonable expectations and interests of our stakeholders.

Our key stakeholders are identified as individuals or entities who are expected to be affected by or whose actions can influence our business and activities.



STAKEHOLDER ENGAGEMENT

Summary of On-going Engagement Methods and Outcomes

Stakeholders	Engagement Channel	Frequency	Purpose
 Employees	<ul style="list-style-type: none"> • Town Halls • Employee Information • Intranet • Development Discussions • Events and Campaigns • Training • Team Meetings • Informal Meetings 	Quarterly On-going On-going Annually On-going On-going On-going On-going	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
 Union	<ul style="list-style-type: none"> • Meetings 	Quarterly and as required	Build and sustain relationship, obtain feedback on concerns and provide update on current issues
 Customers	<ul style="list-style-type: none"> • Survey • Email Communication • Supply and delivery meetings • Site visits • Conferences 	Annually As required Quarterly As required On-going	Offer high quality products and service offerings
 Suppliers	<ul style="list-style-type: none"> • Vendor registration • Bid / Tender Process • Meetings • Audit • Conferences 	On-going On-going As required Annually On-going	Set clear expectations to maintain high standards for delivery of products or services to the Company
 Shareholders and Investors	<ul style="list-style-type: none"> • Annual General Meeting • Annual Report • Announcement 	Annually Annually As required	Disseminate timely and material information on the Company's activities and financial performance to facilitate decision-making by investors
 Community	<ul style="list-style-type: none"> • Community Events and Campaigns • Dialogue 	On-going On-going & as required	Build and maintain good relationships while being a 'Good Neighbour' i.e. carrying out our corporate social responsibilities to the local communities
 Regulators	<ul style="list-style-type: none"> • Consultation and Dialogue • Email Communication • Inspection 	On-going On-going As required	Strict compliance with all laws and regulations to maintain operating licences Participation in discussions and knowledge sharing for improvements in industry best practices
 Government Agencies	<ul style="list-style-type: none"> • Face-to-face meetings 	On-going	Provide business familiarity and sustain efficient business operations

OUR MATERIAL ISSUES

For long-term sustainability and success, we focus on the EES issues that are not only material today but will be material in the future.




We consider material issues through our governance and risk management frameworks and from continuous stakeholder dialogues and engagement activities during the year. Our material assessment process helps us identify and prioritise EES topics that present risks and opportunities to the Company and our various stakeholder base.



Selection and prioritisation of material sustainability issues are also guided by the core principles of the GRI Sustainability Reporting Guidelines and relevant UN SDGs.

Core Principles of the GRI Sustainability Reporting Guidelines

The following material issues are identified as priorities for our Company:







CATEGORY	SUSTAINABILITY TOPICS	GLOBAL REPORTING INITIATIVE (GRI)
 Economic	<ul style="list-style-type: none"> • Ethics and Integrity • Economic Performance • Customer Management • Supply Chain Management • Product Quality • Reliability and Production • Quality, Health, Safety, Security and Environment (QHSSE) Management and Performance 	<ul style="list-style-type: none"> • GRI 205 • GRI 201 • Non-GRI • GRI 204 • Non-GRI • Non-GRI • Non-GRI • GRI 403
 Environment	<ul style="list-style-type: none"> • Water and Effluents • Waste Management • Emissions • Energy 	<ul style="list-style-type: none"> • GRI 303 • GRI 306 • GRI 305 • GRI 302
 Social	<ul style="list-style-type: none"> • Employment • Local Community 	<ul style="list-style-type: none"> • GRI 401 • GRI 413













OUR MATERIAL ISSUES

UN Sustainability Development Goals

We continue to promote the UN SDGs through our existing business activities to contribute to the global sustainable development agenda.

A summary of actions taken in 2019 in support of the following SDGs is set out below:

 UN SDG Goal 3 Ensure healthy lives and promote well-being for all at all ages	
MATERIAL ISSUES	ACTION
 Social	HRC encourages all employees and business partners to practice a healthy lifestyle through company-initiated health improvement programmes and various sports activities. <ul style="list-style-type: none"> • The Company continues to hold its 'Be Well' campaign in 2019 and actively organises various sporting and social activities through its Sports Club.
 UN SDG Goal 4 Ensure inclusive and quality education for all and promote lifelong learning opportunities for all	
MATERIAL ISSUES	ACTION
 Social	HRC advocates excellence in education and continues to focus on the training and development of our employees to build talent for long-term sustainability. <ul style="list-style-type: none"> • Graduate Programme continues to receive overwhelming response from local talent which helps develop succession planning for the next generation of employees. • HRC continues to support the Kampung Sunggala library for Orang Asli children (native community). • In-house training programmes for employees in technical and soft skills. • Policies to support continued education assistance for employees. • Collaboration with local universities to provide internship opportunities for university students to gain practical training and hands-on experience at an oil refinery.
 UN SDG Goal 5 Achieve gender equality and empower all women and girls	
MATERIAL ISSUES	ACTION
 Social	HRC offers equal opportunities to everyone and promotes individuals based on their skills, knowledge, experience and performance, regardless of their gender, age, ethnicity, and cultural background. <ul style="list-style-type: none"> • HRC's Site Woman Action Network (SWAN), a women-specific programme in the Company, serves as a platform that enables female workers to develop and grow both personally and professionally.

 UN SDG Goal 7 Ensure access to affordable, reliable, sustainable and modern energy for all		
MATERIAL ISSUES		ACTION
 Economic	With operations since 1963, HRC, as the third largest refinery in Malaysia, has significantly contributed to the country's oil and fuel needs. <ul style="list-style-type: none"> • HRC has successfully completed the CAR project in 2019; while its other major projects, Euro 5 Gasoil (Euro 5G), Hydrogen Generation (H2GEN) and Euro 4 Malaysia (Euro 4M) are on-going to be completed in 2020. The CAR project significantly reduces emissions for the Port Dickson's refinery. The Euro 4M and Euro 5G projects will also help reduce emissions in the country and the region through the production of cleaner quality fuels. 	
 Environment		
 UN SDG Goal 8 Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all		
MATERIAL ISSUES		ACTION
 Economic	Being one of the largest economic contributors to the state of Negeri Sembilan, HRC has provided employment for up to three generations of the surrounding community. HRC also provides a significant source of revenue for the State and Federal Governments in tax and duties.	
 Social		
 UN SDG Goal 12 Ensure sustainable consumption and production patterns		
MATERIAL ISSUES		ACTION
 Economic	As a responsible operator, HRC consistently contributes to the economic, educational, environmental, safety, social and welfare initiatives in the country.	
 Environment		
 Social		
 UN SDG Goal 13 Take urgent action to combat climate change and its impacts		
MATERIAL ISSUES		ACTION
 Environment	HRC acknowledges the urgency for global efforts in mitigating climate change issues as well as environmental protection and is committed to manage our GHG emissions by improving energy efficiency and integrating GHG emissions management into our business activities.	

The next sections of the Report provide a more detailed analysis on how we approach each of the identified material aspects. The material sustainability issues will be reviewed and reassessed from time to time for continued relevance in our business.

ECONOMIC SUSTAINABILITY

As HRC aspires to grow from a leading refinery to a global energy and petrochemical company, it will continue to optimise long-term stakeholder value in this on-going journey. It is vital for us to achieve sustainable economic excellence by operating in a safe and environmentally sustainable manner with integrity and transparent business practices within a challenging business landscape.



ETHICS AND INTEGRITY

Whilst profitability drives economic growth, HRC recognises that we will not sustain if we do not operate in a responsible and ethical manner. It is also fundamental to our business principles that we continue to operate in compliance with the laws to remain a trusted company to our people, business partners and the community around us.

Our commitment to conduct business at the highest level of integrity is highlighted in the policies, procedures and practices adopted throughout our value chain to support our ethical business culture.

Our core values of 'Integrity', 'Collaboration', 'Accountability', 'Respect', and 'Entrepreneurial' are reflected in HRC's General Business Principles (HGBP), described in page 10 of our AR2019, supported by the Company's Code of Conduct (Code), Anti-Bribery & Corruption Policy (ABC Policy), Anti-Bribery & Corruption and Anti-Money Laundering Manual (ABC & AML Manual) and the Whistleblowing Policy. All employees, officers, directors, suppliers and business partners of HRC are expected to comply with these policies and procedures that set out the ethical behaviour standards expected from them. The HGBP, Code, ABC Policy, ABC & AML Manual and the Whistleblowing Policy are published on the Company's website at www.hrc.com.my.


The Board has oversight over the ethical performance of the Company based on quarterly reports received from periodic tracking of any non-compliance or breach of ethical practices which is part of the Company's scorecard.

Prior to November 2019, the BAC was responsible for overseeing the implementation of the Whistleblowing Policy (Policy). Disclosures received via whistleblowing channels were reported by the CIA for the BAC's notation on a quarterly basis.

With the establishment of the Board Whistleblowing Committee (BWC) on 27 November 2019, the responsibility to oversee and implement the Policy had been handed over to the BWC and all disclosures shall be received directly by the BWC members independently via various whistleblowing channel. This is to assist the Board to further strengthen the Company's corporate governance culture by ensuring the highest standards of integrity, openness and accountability in the conduct of our businesses and operations are met.

From 1 January to 26 November 2019, the BAC received four whistleblowing disclosures via various whistleblowing channels. Two of the reports were deliberated by the BAC and the remaining two reports were presented and deliberated at the Board Whistleblowing Committee (BWC) meeting.

In addition, no major non-compliance cases or breach of ethical business culture practices were recorded during the year.

 Full details are outlined in HRC's Statement on Risk Management and Internal Control (SORMIC) page 63 of the AR2019 and the Audit Committee Report in page 68 of the AR2019.



HIGHLIGHTS IN 2019

- First oil and gas and chemical plant in Malaysia, and first company in Negeri Sembilan to be certified for ISO 37001: 2016 Anti-Bribery Management Systems. This demonstrates HRC's readiness to combat unethical business practices and uphold integrity.
- Dedicated set-up of an independent and direct channel for whistleblowing submissions at the Board level (via the BWC).

TARGET	2019 ACTIVITIES
<p>Create awareness and build necessary capacity on anti-corruption and anti-bribery policies and procedures to combat corruption</p>	<ul style="list-style-type: none"> • Refresher training for existing employees and business partners. • On-boarding training programmes for new employees. • Declaration of commitment required from all employees and business partners to comply with the ABC & AML Manual and to disclose any conflict of interest via HRC’s annual declaration process. • “Business Integrity Week” held in September 2019 focused on “Integrity” in the redefined Mission and Values of the Company to strengthen the business integrity culture by creating awareness on values, business principles and risks.
<p>Obtain ISO 37001: 2016 Anti-Bribery Management Systems</p>	<ul style="list-style-type: none"> • The auditors from SIRIM QAS International Sdn Bhd (SIRIM QAS International) conducted two phases of audits from April 2019 to review the adequacy of HRC’s Anti-Bribery Management Systems (ABMS) plans and documentations in accordance with ISO 37001 standards. <p>The auditors provided 15 recommendations as Opportunities For Improvements (OFI) while nearly half of the OFIs were already captured internally. The stage 2 audit was completed with no non-conformances recorded, and HRC was successfully certified for ISO 37001: 2016 Anti-Bribery Management Systems in July 2019.</p> <p>HRC was among the first few private organisations, and the first oil and gas and chemical plant in Malaysia as well as the first company in Negeri Sembilan to receive the ISO 37001: 2016 Anti-Bribery Management Systems.</p>



Staff participation in HRC Business Integrity Week 2019.

ECONOMIC SUSTAINABILITY

AT A GLANCE

How HRC's Core Values and HGBP support an ethical business culture

INTEGRITY & ACCOUNTABILITY

Anti-Money Laundering (AML)

We trust our business dealings are not used for money-laundering purposes and that customers whom we deal with do not indulge in such practices. The AML Policy in the ABC & AML Manual addresses best practices on anti-money laundering activities.

Anti-Bribery and Corruption (ABC)

HRC does not tolerate any corruption and bribery practices.

The ABC Policy and the ABC & AML Manual addresses countering relevant forms of bribery and anti-corruption activities in our business dealings. These include but are not limited to not accepting or paying any bribes or facilitating any payments of such bribes. We discourage our employees from accepting or giving out gifts and hospitality to business partners. Where the gift or hospitality is unavoidable due to local culture, it must be declared following the procedures set out in the ABC & AML Manual and Code.

HRC is certified with ISO 37001: 2016 Anti-Bribery Management Systems.

Whistleblowing Policy

HRC's Whistleblowing Policy facilitates the disclosure of genuine and legitimate improper conduct raised by HRC's employees, employees of HRC's business partners, vendors, customers and members of the public of any improper conduct within the Company. A whistleblower will be accorded (to the extent reasonably practicable) with protection of confidentiality of identity.

Prior to November 2019, the BAC was responsible for overseeing the implementation of the Whistleblowing Policy. With the establishment of the BWC, responsibility to oversee and implement the Policy has now been handed over to the BWC. The BWC members will receive all complaints directly via various whistleblowing channels as part of HRC's aim to strengthen its corporate governance and ensuring greater integrity, accountability and confidentiality in the whistleblowing process.

Conflict of Interest

To avoid any potential conflict of interest situations, employees 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 or interest during the tendering process.

Compliance

Compliance with all applicable laws and regulations in places where we operate and have commercial dealings.

RESPECT

Human Rights

We are committed 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 that, amongst other requirements, ensures fair minimum wages, fair working hours and prevention of child or forced labour.

Human Rights issues are embedded into HRC's corporate practices, manuals and policies and include key areas covering, social performance, safety, human resources and contracting and procurement.

The Board of Directors has the oversight responsibility of ensuring that these practices are adhered to for the upholding of human rights.

The Company commits to remedy affected parties where it has been identified that it has caused or has impacted human rights.

Political Activity

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 is able to do so as long as it does not conflict with the Company's interests.

COLLABORATION & ENTREPRENEURIAL

Anti-Trust

HRC supports free enterprise and fair competition in the industry. We do not engage in price-fixing or market manipulation activities with competitors.



ECONOMIC PERFORMANCE


HRC continues to monitor its economic performance by having annual budget process and financial performance targets in place. In 2019, HRC recorded revenues of RM12.6 billion, while profit after tax amounted to RM35.0 million and total comprehensive expense of RM9.2 million. Revenue for the year was comparably higher due to higher sales volume but was dragged down by lower market quoted product prices in 2019. The Company recorded higher operating expenditure, other operating losses and taxation whilst being offset by lower depreciation and amortisation and finance costs.

HRC's economic values generated, retained and distributed by the Company for the year ended 31 December 2019 are as follows:

Economic Value Generated^(a)	RM12.6 billion
Economic Value Distributed^(b)	RM12.4 billion
Economic Value Retained^(c)	RM225.5 million

Notes:

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

 Further details of our financial performance can be found under the Management Discussion & Analysis (MD&A) section in page 39 of the AR2019.



KEY INVESTMENT PROJECTS IN 2019

HRC has invested in the following major projects from 2017 to 2019 which are critical for HRC's business continuity and long-term sustainability:

CAR. To install Air Pollution Control Systems (APCS) and Predictive Emission Monitoring System (PEMS) in order to comply with the monitoring requirements and regulatory emission limits.

EURO 4M. To install a Petrol Sulphur removal unit for statutory compliance with Euro 4M specifications by January 2020.

EURO 5G. To comply with Euro 5 diesel specifications by September 2020.

H2GEN. To supplement hydrogen shortages post Euro 4M and Euro 5G projects, with implementation in 2020.

The CAR project was successfully commissioned in September 2019, making HRC the first refinery in Malaysia to successfully complete the project.

Both the Euro 5G and the H2GEN projects are on track. The Euro 4M has been delayed after construction quality issues were identified. The project is currently working towards completion as per the new planned timeline and to ensure the quality and safety standards of the project are met.

* Further information on the above stated major projects are in the AR2019 under 2019 Performance Review.



CUSTOMER MANAGEMENT

Keeping our customers satisfied with our products and services is critical to our reputation, financial performance and overall success.

HRC's principal market is the domestic Malaysian market, where over 90 per cent (by volume) of our refined products are sold. The remaining 10 per cent of our production, including propylene and surplus petrol, jet fuel and diesel is exported within Southeast Asia. We are committed to supplying the needs of the domestic market and hold a long-term Product Offtake Agreement (POA) with a large retail distributor in Malaysia. We continue to actively develop new customers and supply channels, both within Malaysia and in the wider region. Further expansion is focused on the best commercial opportunities and financial viability.

We continue to obtain feedback from our customers through an annual customer survey and from focal contacts within the Company to measure customer satisfaction and opportunities to identify areas for improvements.

ECONOMIC SUSTAINABILITY

HRC Customer Satisfaction Survey

Results from the 2019 customer survey indicate improvements in overall customer satisfaction in the areas of reliability responsiveness, communication and cost.

A summary of our customer survey results over five years is set out below:



SUPPLY CHAIN MANAGEMENT

It is vital for us to work with suppliers and business partners who commit to responsible practices and share the same values and principles for our Company's long-term success. Having suitable, qualified and competitive partners will enable us to provide quality products and services at the best rates available in the market.

Suppliers and business partners are selected only through the supply chain process set out in the Contracting Policies and Procedures Manual. International best practices are applied in the contracting and procurement processes at HRC to support fair and equal treatment of all suppliers and business partners and separation of technical and commercial assessments.

Suppliers are selected based on their manpower, experience, price, feedback from market survey, evaluation criteria and screening results. The contracting process provides additional criteria to ensure that the right suppliers and partners are selected.



HIGHLIGHTS IN 2019

- Completed implementation of hydrocarbon hedging by adding inventory hedging to HRC's portfolio and improved measurement and calculation of hydrocarbon balances to improve Oil Losses to well below target, with more improvements in progress.
- Improved new ventures for gantry sales with a fully automated gantry system. The gantry system has been upgraded to have seamless data transfer between multiple business systems and is scalable for future growth.
- Focused on on-going diversification of supplier and customer base to drive down costs and secure new markets.



All contractors and workers commit to upholding HRC's Safety Standards and Culture.

TARGET	2019 ACTIVITIES
Seek new avenues to supply products in order to strengthen and diversify customer base	HRC has onboarded one new local customer and began positive trials with another. In addition, the Company has signed commercially attractive deals with customers for three new product cuts and have optimised our supply into the new post International Maritime Organisation (IMO) 2020 low sulphur fuel oil markets.

Contracts with our Suppliers and Business Partners

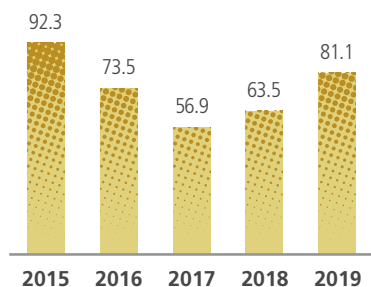
In 2019, a total of 37 contracts worth RM261.5 million were awarded to suppliers and business partners through our selection process.

Thirty contracts valued at RM252.7 million were awarded through the competitive bidding process and seven contracts valued at RM8.8 million were awarded through sole sourcing and previous engagements.

Contracts awarded via Competitive Bidding

81.1 per cent of our contracts were awarded based on competitive bidding, which is an increase of 17.6 per cent from 2018.

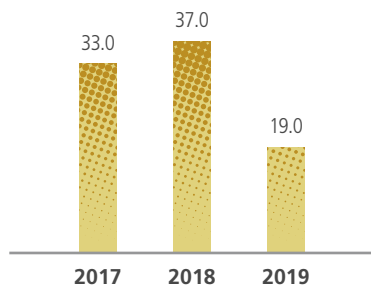
Contracts via Competitive Bidding Process (%)



Contracts Awarded via Sole Source and through Previous Engagement

In 2019, only 19 per cent of total contracts were awarded without competitive bidding, a reduction by 18 per cent from 2018. These include contracts with original parts manufacturers and specific vendors to ensure consistency in plant configuration and specification.

Contracts via Sole Source and Through Previous Engagement (%)

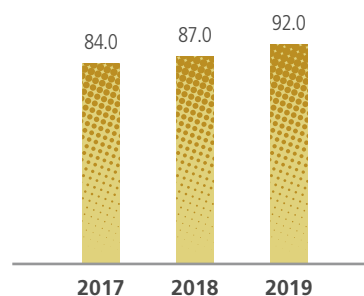


Contracts awarded to Malaysian companies

Overall, HRC has been able to award 92 per cent of contracts valued at RM256.9 million to local suppliers in 2019, a five per cent increase from 2018.

HRC engages local vendors, where possible, to support the Malaysian economy and maintain community relationships.

Contracts Awarded to Malaysian Companies (%)



Supplier performance is reviewed on a regular basis based on the nature, value, and risks of the contracts. Five contract reviews were conducted in 2019. Results of the review were shared, discussed internally and directly with the relevant vendors.

HIGHLIGHTS IN 2019

- HRC's procurement team has embarked on a new optimisation process to improve efficiency and enable improvements on turnaround of contracts and purchasing in shorter lead times. This will provide a leaner and robust decision-making process for procurement activities, allowing the team to focus on more high value commodities.

ECONOMIC SUSTAINABILITY

TARGET	2019 ACTIVITIES
Enhance competition and leverage on the best quality, delivery time and prices by expanding supplier base	81 per cent of contracts in 2019 were awarded through competitive bidding. This is a result of the Company's phase one process improvement which strengthened controls on awards based on single sourcing.
Minimise procurement costs	<ul style="list-style-type: none"> • Significant cost reductions were achieved when three major contracts were reviewed and negotiated in 2019 for plant and tank maintenance services and one with a solutions provider. One of the services purchased for in-house use has generated significant savings. • Replacement of Human Resource (HR) applications in October 2019 with a new customised in-house office automation (OA) platform for business process productivity improvements. The platform is intended to be used in the future for further improvements on productivity for most business processes of the Company. • Development of internal talent to take over previous external party services for HR and contract and procurement services.
Identify and manage risks in supply chain management	As part of the risk evaluation process, new contracts where rapid service is essential to the business, were assessed. Several contracts were found to have a split scope, and where required, more than one supplier was awarded the scope to reduce the risk of untimely service delivery due to contractor issues.



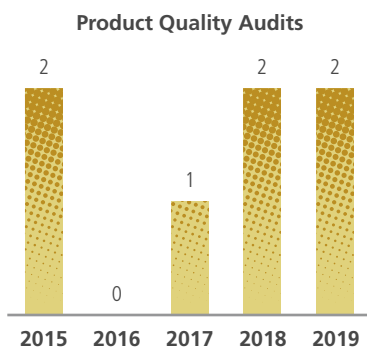
PRODUCT QUALITY

We take pride in the quality of our products. We are committed in ensuring all our products meet our QHSSE standards to enable us to deliver and cater to all our customers' expectations at the highest level of quality.

Our products are systematically verified for quality along the production chain in our laboratory. The 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 quality specifications.

PQ Audits

Summary of PQ Audits over the last five years:



HIGHLIGHTS IN 2019

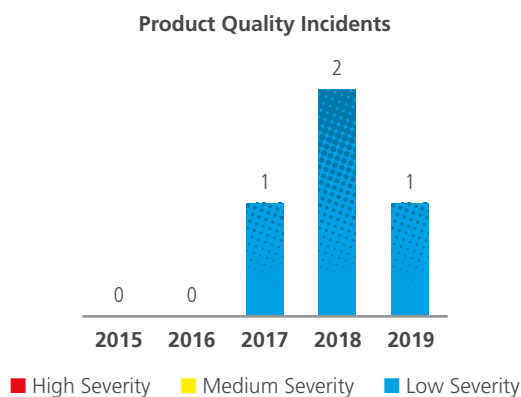
- Our efforts to improve standards and quality of HRC's laboratory resulted with the successful migration of ISO 17025: 2017 Testing and Calibration Laboratories to the new 2017 certification by the Department of Standards Malaysia and the re-certification for ISO 9001: 2015 Quality Management Systems by SIRIM QAS International to ensure the refinery meets prescribed product quality standards.
- Commenced a successful trial run of a PQ health check structure to strengthen and enable continuous improvement of the PQ work process in HRC. This structure will form the basis of the PQ health check framework for 2020 onwards.
- The PQ team completed the Euro 4M transition / flushing plan on time without any Product Quality Incidents (PQIs). The refinery is now completely converted to the new Euro 4M specification. A multi-disciplinary team in HRC was set up in 2019 to plan for the transition to Euro 5 quality diesel by September 2020.
- Completed an assessment of requirements to release 95 octane grade petrol with zero giveaway on octane or vapour pressure using an online analyser.

PQ Incidents (PQI)

There were no significant PQI issues during 2019. All products were delivered to customers on specification.

There was however one minor incident impacting our product and delivery. Gasoil product was found contaminated with water in our customer's road tankers. There was an intermittent supply disruption to our customers for one and half days during this incident. The source was identified from import gasoil hence immediate corrective and precautionary measures were put in place to resolve this issue. This included more structured surveillance via water cut activity, increased settling time in tanks and flushing and draining of low points within the product transfer pipeline system.

Summary of PQIs over the last five years:



TARGET	2019 ACTIVITIES
Achieve zero high and medium PQI	No high and medium PQI or Product Quality Reliability Incidents (PQRI) were recorded in 2019.
Enhance PQ competencies in refinery	A comprehensive PQ training was conducted in 2019 for HRC personnel with support from a reputable Oil Major.



RELIABILITY AND PRODUCTION

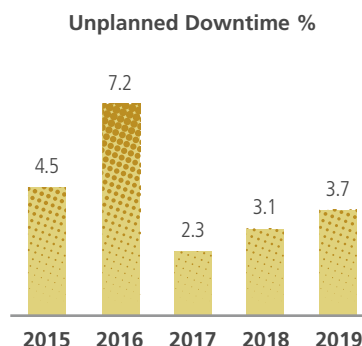
For our production to run efficiently, our equipment must be reliable to perform at its optimal level.

HRC's 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.

We instill a "Reliability Mindset" culture in our people to promote individual accountability and excellence in every phase of asset management to encourage our people to participate proactively in our asset integrity management.

Our efforts in enhancing our Reliability Management framework and reinforcing the "Reliability Mindset" resulted in the substantial improvement of our plant reliability in 2019.

Summary of HRC's Unplanned Downtime (UPDT) over the last five years is as follows:



HIGHLIGHTS IN 2019

- For the first three quarters, the refinery achieved extremely high availability and low unplanned downtime with a high number of crude barrels processed as a result. Cumulative UPDT at the end of the third quarter was almost world class at 0.4 per cent. However, the unexpected underwater Pipeline End Manifold (PLEM) leak in September 2019 reduced our crude processing in the fourth quarter and brought the annual result down to previous levels.

Details of the PLEM incident are further discussed on page 36 of this Report.

- The Long Residue Catalyst Cracking Unit (LRCCU), achieved an all-time record run of seven months without outages.
- We continue to consider measures to extend operational life of current equipment and maximise operational reliability.

ECONOMIC SUSTAINABILITY

Product Yields

HRC’s comprehensive range of petroleum products are set out below.

PRODUCTS	2019 (%)	2018 (%)
Petrol	31.0	33.1
Jet Fuel	8.0	8.1
Diesel	45.0	46.8
Fuel Oil Components	3.0	1.5
Light Naphtha	1.0	2.7
LPG	7.0	4.3
Reformate	2.0	0.6
Propylene	3.0	2.9
Sulphur	-	-
Grand Total	100%	100%



2019 PRODUCTION REVIEW

- Total production in 2019 was 38.8 million barrels, slightly below the crude processing target for 2019, and higher than 2018 production by 6.3 million barrels. The production in 2019 was higher than 2018 due to the Major Turnaround (MTA) activities in 2018.
- Petrol production was 12.3 million barrels, 16 per cent higher than in 2018. This was to support the higher value tier sales secured in the second half of 2019, and compensate 2018’s lower petrol production due to MTA activities. However, the unexpected underwater PLEM incident in the fourth quarter of 2019 halted further petrol production growth for the year.
- Kerosene / jet production was 3.2 million barrels, 18 per cent higher than in 2018. This was supported by the strong Middle Distillate crack, and pushed the refinery to process more Middle Distillate rich slate throughout 2019.
- Gasoil production was 17.4 million barrels, 20 per cent higher than in 2018. High gasoil production in 2019 was also supported by strong Middle Distillate cracks.
- LPG and propylene production were 4.2 million barrels, 33 per cent higher than in 2018. LPG and propylene production were primarily attributed to the ZSM5 additive injection in late April which boosted up propylene yield from catalytic cracked petrol.

TARGET	2019 ACTIVITIES
Plant Availability (>96.6 per cent)	Achieved 96.3 per cent
Plant Utilisation (>87.3 per cent)	Achieved 81.5 per cent
Unplanned Downtime (UPDT) <2 per cent	Achieved 3.7 per cent



QHSSE MANAGEMENT AND PERFORMANCE

The nature of our business mandates that the health, safety and security of all our employees, business partners and the surrounding communities impacted by our operations come first. We prioritise our responsibility to provide a safe working environment to remain a trusted and reputable employer in Port Dickson and a sustainable refinery in the oil and gas industry.

(i) QHSSE Governance

We manage our QHSSE performance through a well-established governance structure and stringent standards, including those set out in the Health, Safety, Security, Environment and Social Performance (HSSE & SP) Commitment and Policy as well as our Quality Policy, which all support the QHSSE framework.

HRC’s QHSSE governance is a three-tier structure, with several Committees responsible for reviewing the QHSSE performance, implementing corrective and preventive actions and disseminating QHSSE information of general interest on a monthly basis.

The QHSSE framework

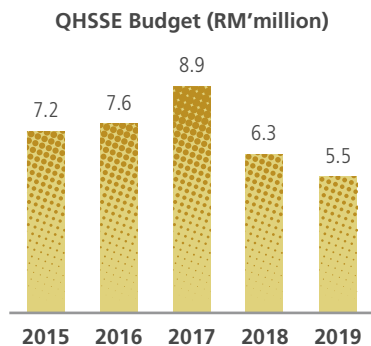
COMMITTEES	ROLES
HSSE Tier 1 (All departments)	<ul style="list-style-type: none"> • Addresses HSSE issues raised by employees and business partners from the ground level.
HSSE Tier 2 (Production unit managers, area owners and representatives from all other disciplines and business partners)	<ul style="list-style-type: none"> • Reviews 10 HSSE-related work processes and escalations from HSSE Tier 1 Committee. • Management Team monitors HSSE performance on a weekly basis.

COMMITTEES	ROLES
HSSE Tier 3 (“Steering Committee” or “Environmental Regulatory Compliance Monitoring Committee” – refinery employees, Management Team, asset owners and discipline representatives)	<ul style="list-style-type: none"> • Discusses and identifies critical HSSE issues and implements QHSE programmes. • Attends to escalations from the HSSE Tier 2 Committee. • Meets on monthly basis to cover standing agendas and on a quarterly basis to review the Company’s environmental performance and compliance, as required by the Department of Environment (DOE) directive for Guided Self-Regulation (GSR) initiative. • Reviews performance and results of internal and external audit programmes. • Conducts annual HSSE Management Systems review.

Improving our QHSE remains a top priority for us. In 2019, RM5.5 million was allocated for HSSE purposes. The amount was slightly reduced as 2019 was a non-major turnaround year and a large part of the HSSE trainings and project requirements were covered under the project management budget allocation.

We continue to invest in development and training, campaigns and emergency response exercises to create more awareness and improve QHSE performance.

QHSE Budget allocation over last five years



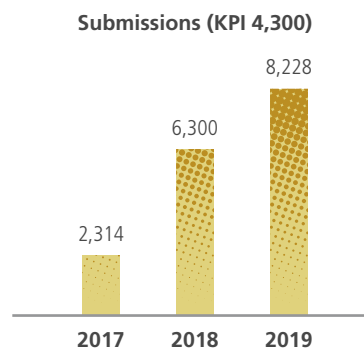
(ii) QHSE Management

In 2019, we continued our efforts to improve key areas of Personal Safety, Process Safety and Emergency Preparedness to safeguard our employees, surrounding community, and the business partners we work with from any potential danger or risks.

HRC’s Annual Plan details QHSE KPIs, targets and an action plan for the year ahead. HRC maintains a QHSE indicator as part of its KPIs, one of which is the submission of weak signals by both employees and business partners through the Near Miss and Potential Incident (NMPI) submissions.

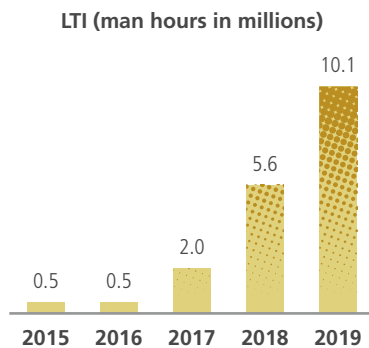
In 2019 alone, the total submission of NMPIs was more than 8,000, far exceeding the yearly target of 4,300. High volume of workers on-site contributed to this healthy registry which indirectly indicates a sustained positive reporting culture from our employees and business partners to ensure gaps are attended and escalated accordingly. Efforts taken to improve the reporting culture includes the establishment of CREST, an accessible reporting platform encouraging timely and handy reporting; and HRC’s ‘Just Intervene’ Committee’s rewarding mechanism of identifying quality NMPI via monthly “NMPI Heroes”.

Near Miss and Potential Incidents



ECONOMIC SUSTAINABILITY

We continued to make good progress on the safety front with an achievement of 10.1 million manhours without a Lost Time Injury (LTI) by the end of the fourth quarter of 2019.



HRC Safety Day 2019.



HIGHLIGHTS IN 2019

- The CREST online portal was established and launched on 15 May 2019 as part of our QHSSE digitalisation efforts in capturing, consolidating and analysing findings from all types of walk-about activities and interventions done on site. Themes from these findings are then shared in multiple forums to drive improvements on QHSSE, essentially making information available at everyone's fingertips. This project aims to improve efficiency of some of our QHSSE processes and, eventually streamline all QHSSE records into one centralised webtool that will benefit both employees and contractor partners.
- HRC was declared the Winner of the NCOSH Award 2019, a prestigious national level award in the category of Major Industries – Petroleum / Gas / Chemicals. This prestigious annual award instituted by NCOSH, which includes the Department of Occupational Safety and Health (DOSH) as the Secretariat, is considered as a benchmark in setting standards in Occupational Safety Health (OSH). HRC won this accolade in our very first participation at national level for OSH, making it a truly remarkable achievement to be proud of. This award is a testament of our commitment and focus in complying with HSSE standards, and also a recognition of the tremendous effort and dedication that our HRC employees have put in through inter-departmental collaboration.
- HRC was also one of the selected finalists for the NCOSH Chief Executive Officer (CEO) award under the private sector banner. The auditors were impressed with the safety leadership, profile and performance of our CEO, David Keat in leading the Company in OSH management throughout 2019.
- The "Be Well" programme also elevated HRC as a finalist for the HR Excellence Award on 17 October 2019 held in Kuala Lumpur. HRC was selected for the final round on Corporate Wellness category, on par with other corporations who were seasoned participants in this competition.
- At the MSOSH Award Program 2019 for the WPP Health Award, HRC was the only participating company to receive a "Level 3" (the highest level for this year) recognition, as a company with well-equipped and structured WPP programmes. HRC aspires to achieve the Level 5 (highest) award at the next round of competition through its refreshed "Be Well 2.0" campaign launched in late 2019. The award was newly introduced in 2019 by MSOSH and Pertubuhan Keselamatan Sosial (PERKESO) and is open to all companies in Malaysia.
- Our systems have been certified with the following:
 - ISO 9001: 2015 Quality Management Systems
 - ISO 45001: 2018 Occupational Health and Safety Management Systems
 - ISO 14001: 2015 Environmental Management Systems
 - ISO 17025: 2017 Testing and Calibration Laboratories
 - ISO/IEC 27001: 2013 Information Security Management Systems
 - ISO 37001: 2016 Anti-Bribery Management Systems

Audits

All eleven external audits carried out in 2019 on HRC were successfully completed with ZERO fines. Below are the key audits conducted at our facilities.

Third Party Environmental Audit of Euro 4M / H2GEN site	This is HRC's third audit on environmental compliance on the Euro 4M site project, conducted by the DOE-approved external auditors. The audit outcomes were positive with no compounds issued.
DOSH multiple audits on Euro 4M site and refinery operations	Representatives from the DOSH Headquarters and Negeri Sembilan state enforcement officers conducted a series of audits at HRC's Euro 4M site, and our other operations throughout the year to observe HRC's overall OSH controls implementation on site.
Surveillance audits on ISO 9001: Quality Management Systems, ISO 14001: Environment Management Systems and ISO 45001: OSH Management Systems	SIRIM QAS International conducted surveillance audits on ISO 9001: Quality Management Systems, ISO 14001: Environment Management Systems and ISO 45001: OSH Management Systems in June 2019. Only one OFI finding was raised, relating to forklift operation. All other related management systems were in place and well-implemented. Auditors recommended recertification of the systems.

TARGET	2019 ACTIVITIES
NMPI target of 4,300	The NMPI reporting submissions surpassed the 2019 target at 8,228 reports, with a closure rate of 91 per cent.
Zero LTIs	Achieved 10.1 million manhours without a LTI by the end of the fourth quarter of 2019.

(iii) Personal Safety

It is crucial for us to take care of the safety of all employees and business partners with appropriate measures in place to stay safe.

We drive the "Chronic Unease Mindset" into all our employees, business partners 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 be responsible for their part to uphold safety requirements on site.



HRC's
GOAL ZERO

vision states our aim to operate without any fatalities or significant incidents.

ECONOMIC SUSTAINABILITY

The 12 Life Saving Rules support our Goal ZERO vision.

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

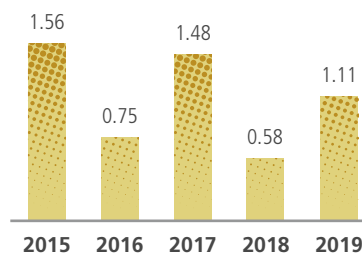
HRC's safety performance in 2019, as compared over a five-year period:

Fatalities

0	0	0	0	0
2015	2016	2017	2018	2019

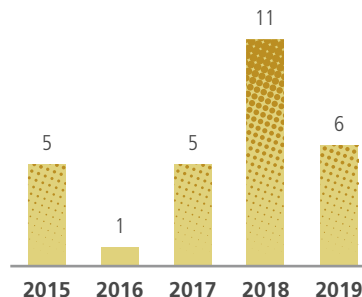
In 2019, there were no fatalities, keeping in line with our zero fatalities record for more than 26 years.

Total Recordable Case Frequency (TRCF)



Our total TRCF in 2019 increased as compared to the previous year due to a substantial increase in the manhours at site.

First Aid Cases



Minor personal safety incidents constituting first aid cases were recorded throughout the year.



INCIDENTS IN 2019

Despite all the safety measures in place, several minor safety violations and incidents were recorded in 2019:

- (a) **Restricted Work Case.** Two Restricted Work Case incidents reported in 2019 related to Tools and Equipment Safety. Quick action and necessary measures were taken to attend to the respective injured persons. The learning outcomes from the reported incidents were shared with all site personnel through the HSSE alert sharing processes and the first quarter HSSE Campaign.
- (b) **Medical Treatment Case.** Three Medical Treatment Case incidents reported in 2019 were related to slip, trip and fall, hazards while working with live equipment and Line of Fire. Quick action and necessary measures were taken to attend to the respective injured persons. The learning outcomes from the reported incidents were shared with all site personnel through the HSSE alert sharing and Safety Stand Down sessions.
- (c) **First-aid cases.** First-aid cases reduced from 11 cases in 2018 to six cases in 2019. All incidents were immediately addressed followed by incident and reminder sharing in daily toolbox sessions with the work crew.
- (d) **Fire Incidents.** Five minor fire incidents occurred in 2019, due to fuel gas leaks, human error, defective equipment, high temperature conditions of pipes, improper cable connection to a portable electrical distribution panel and improper placement of welding machines. Quick action was taken by the ground team to immediately disconnect power supply, where required, and extinguish the fires. Maintenance works have also been carried out to rectify the problem areas and Safety Stand Down sessions were performed to share quick learnings captured during the incidents with the relevant teams and business partners.

TARGET	2019 ACTIVITIES
Educate all new employees, business partners or visitors on potential risks and dangers at site	All parties were required to attend a mandatory safety induction programme.
Reinforce the “Keep in Mind” and “Chronic Unease” mindset on potential risks and dangers in the workplace	On-going campaigns and programmes were held to support Goal Zero.
“Goal Zero” Vision	As at 31 December 2019, 10.1 million man hours were achieved without LTI.

(iv) Process Safety

Process Safety aims to address issues to prevent and manage hazardous materials and the unplanned release of the same, which could result in undesired incidents such as personal injury, fire, equipment damage or regulatory non-compliant environmental release. At HRC, process safety is upheld by putting in place appropriate measures to ensure proper design, operation maintenance and inspection of our facilities.

Process Safety improvement strategy focuses on three main areas:

MEASURES	SCOPE
Preventive	Implement structured operations and maintenance programmes which includes training, governance, documentation and communication to prevent spills and releases. Focus is on understanding and identifying key factors that may impact safe and proper operations. We also strengthen our asset integrity inspections and monitoring activities.
Design	Design processes to avoid process safety events or provide systems to mitigate and contain any release. Existing facilities are reviewed every five years via a structured Process Safety Review process to identify opportunities to improve its design and operations.
Crisis management	To strengthen our emergency and spill response capability and comprehensive mitigation measures.

ECONOMIC SUSTAINABILITY

Process Safety 9 Fundamentals

PROCESS SAFETY 9 FUNDAMENTALS (PS9F)

The PS9F lays down the minimum requirements of process safety in HRC, which must be adhered to at all times. They remind our employees of the most critical points in terms of behaviour and procedures. The PS9F also support our Goal Zero vision.

- Always Use Two Barriers**: Icon showing two overlapping circles with numbers 1 and 2.
- Do Not Leave Open Drain Unattended**: Icon showing a red drain pipe with a red prohibition sign.
- Take Interim Measures for Safety Critical Equipment Failure**: Icon showing a warning sign and a document with 'INVESTIGATION SYMBOLS'.
- Follow Startup and Shutdown Procedures**: Icon showing a document with 'S/U S/D'.
- Walk The Line**: Icon showing a valve symbol.
- Do Not Change Without Management of Change**: Icon showing a document with 'CHANGE?' and 'MOC'.
- Verify Tightness**: Icon showing a valve symbol and a document with 'CHECK TIGHTNESS'.
- Provide Safe Isolation**: Icon showing a valve symbol and a document with 'VERIFY ISOLATION'.
- Install Backflow Protection**: Icon showing a valve symbol and a document with 'UTILITIES'.

Process Safety Reviews

We continued in our efforts to carry out Process Safety Reviews on the existing plant to assess our process safety risks and identify control barriers against unwanted process safety consequences.

In 2019, HRC completed four process safety reviews which identified opportunities that would reduce site exposure to major process safety risks to As Low As Reasonably Practicable (ALARP).

Hazards and Effects Management Process (HEMP) requires HRC to conduct a 5-Yearly Process Safety Review cycle for all systems within HRC. Three years into the HEMP cycle, the team has completed total 14 out of 22 systems throughout the refinery. Improvement opportunities are being tracked systematically.

Incidents in 2019

HRC tracks and monitors its Process Safety performance based on the American Petroleum Institute's (API) Recommended Practice (RP) 754.

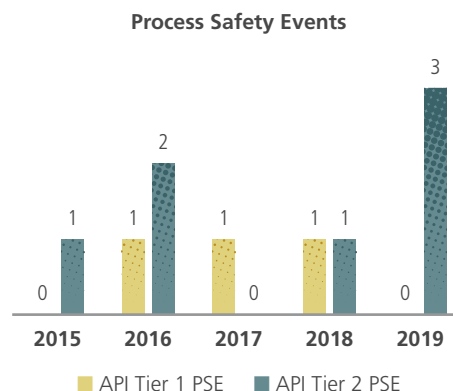
API Tier 1 Process Safety Event (PSE)

There were no API Tier 1 Loss of Primary Containment (LOPC) incidences recorded in 2019.

API Tier 2 PSE

Three API Tier 2 LOPC incidents were recorded, investigated and mitigated during the year. Details of the API Tier 2 PSE are found in page 32 of the AR2019.

API Tier 1 PSE and API Tier 2 PSE as compared over the last five years:



Non-Tiered Loss of Primary Containment (LOPC) >10 kg events. In 2019, six non-tiered API LOPC >10 kg events were recorded (Four incidents were recorded in 2018 and two incidents recorded in 2017).

All of the investigations on the incidents have been completed and shared in the site’s weekly incident review session. The agreed actions have been completed or are in progress and are being followed-through.

Learning from Incidents (LFI) Review

To improve our process safety protocols, it is crucial for us to review all reported HSSE incidents, near misses and other unplanned events. Critical incidents are analysed through a causal learning investigation protocol to uncover the root causes. Recommendations are translated into action items and subsequently included in learning / action packs to be distributed to all concerned parties. The working teams meet on a monthly basis to jointly review the HSSE incidents from internal and external sources.

In 2019, HRC LFI Committees reviewed a total of eight PSE’s worldwide and they were shared refinery-wide through the monthly HSSE pack.

TARGET	2019 ACTIVITIES
Improve Process Safety performance	Strengthening asset integrity management and enhancing maintenance execution on corrective inspection requests. Some repeated LOPCs have gained traction over the management of the Corrective Action Inspection Request (CAIR) process that resulted in the need to strengthen the execution of CAIR process and closing the overdues. Considerable focus and effort have been put in place by various internal departments in closing the CAIR overdues. There were regular updates and tracking of the progress of CAIR Overdue shared by the maintenance team and where deferrals are required, proper risk assessment with mitigation measures were put in place to ensure the refinery plant remains safe and operationally sustainable. As of 31 December 2019, all of the CAIR (legacy) overdues have been attended and closed based on strong inter-department collaboration between maintenance, inspection and operations teams.

ECONOMIC SUSTAINABILITY

Causal Learning (CL) Process for Incident Investigation

CL LEVEL 1

- To identify physical / direct causes
- By personnel or department where the incident occurred
- Awareness of CL Protocol
- Completed within 4 weeks (or earlier for straightforward cases)

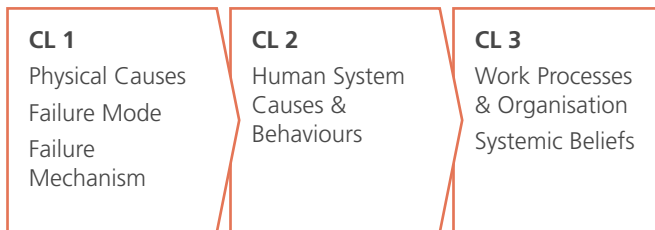
CL LEVEL 2

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

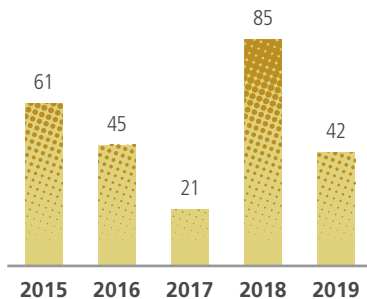
CL LEVEL 3

- 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

We have in place a robust emergency preparedness and response system to support the safety measures used to safeguard our people and business based on the site's available resources for timely and effective deployment during emergency.

The Emergency Response Plan (ERP) and Oil Spill Response Plan (OSRP) have always been subjected to the site's robust assurance and regular review process based on the established standards and best industrial practices.

The Emergency Response (ER) and Security section maintain a close working relationship with the 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). At site, the HRC medical support and facility is managed by a qualified Occupational Health Nurse during working hours to deal with any medical emergencies and the well-being of the employees.



HIGHLIGHTS IN 2019

- HRC secured the Statement of Compliance (SoC) licence renewal from the Marine Department of Malaysia in May 2019, fulfilling a key compliance requirement for HRC's jetty operations. Renewal of the SoC licence is done every five years. This licence is also in compliance with the International Code for the Security of Ships (ISPS) and Port Facilities.
- In April 2019, HRC hosted a large scale, three-day Tier-3 emergency response event named, Exercise Merbok VII, in collaboration with the Port Dickson District Office and joint participation of 10 agencies from across Malaysia. The objective of this exercise was to create awareness, develop a joint response plan and check on HRC management's capacity and understanding of ICS-300 learnings. The scenario used for the event was a jetty incident with escalating complications. All the involved parties shared their views, findings and recommendations for both Table-Top and Asset Deployment Exercises. More than 400 people participated in the event. Exercise Merbok VII was successfully concluded with positive feedback from the participants.
- HRC hosted a series of pre-Exercise Merbok VII training and workshop sessions in March and April 2019 with the participating Government agencies to agree on the scope, resources, scenarios and commitment for assets and logistics deployment by the respective parties.
- Following Exercise Merbok VII, the Mutual Aid Agreement between HRC and a local oil and gas company on "Emergency Response" was signed in September 2019.

TARGET	2019 ACTIVITIES
Replacement / Refurbishment of ER facilities	Commenced rejuvenation plans to improve HRC's Firefighting System. A study was conducted with the support of fire expert consultants that identified facility weaknesses. Action points will be progressively carried out over four years.
Sustaining the Emergency Readiness Awareness	<p>Conducted nine training sessions on Fire-fighting and Medical Aid involving 186 employees and business partners. In 2019, the Company has 129 Emergency Management Team (EMT) members who are trained in executing the Incident Command System to effectively manage and mitigate any emergency. This shows an increase of 21 newly trained members in 2019 from 2018.</p> <p>Tier-3 Exercise Merbok VII was carried out in April 2019, in collaboration with the Port Dickson District Office and 10 government agencies.</p> <p><i>Further details of Exercise Merbok VII are discussed on page 26 of this Report.</i></p>
Testing the emergency readiness strategies	<p>16 Tier-1 drills were conducted in 2019 involving fire-fighting, gas leak and confined space rescue scenarios. Feedback from these drills enabled the site's Pre-Incident Plans (PIPs) to be reviewed and maintained at its highest applicability.</p> <p>In addition, one Tier-3 drill (Exercise Merbok VII) was executed in collaboration with the Port Dickson District Office and 10 government agencies.</p>
Increase external stakeholders engagement	HRC was represented for the first time at the World Fire Fighters Day celebration held in July 2019 at Dataran Merdeka, Kuala Lumpur. HRC demonstrated its mobile fleets on Emergency Response with the aim to showcase its high level of preparedness of asset deployment at a national level event. HRC showcased its HRC Quick Attack Vehicles (QAV) and demonstrated its portability during the parade. HRC's participation in this event was a good sign of collaboration between HRC and government agencies on ER matters.

QHSE Training in 2019

Our people are constantly reminded about the importance of quality and HSSE through our continuous training programmes. Training needs are assessed between multidisciplinary teams on a needs analysis basis to identify required training sessions for the year. Specific HSSE training are mandatory for identified personnel as may be required for legal compliance. The effectiveness of each training programme will be evaluated based on employee feedback.

Regular drill exercises 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.

HRC's QHSE team conducted 25 training sessions during the year covering various topics. The following significant training programmes were made available in 2019:

- Work Process Methodology Training.** HRC's first internal training on Work Process Methodology was held in August 2019, attended by all Site Process Owners, Process Focal Persons and Process Performers. The training emphasised on work processes, site process roles, mapping and metrics, audits and process effectiveness review through a two-way discussion between process performers and owners.
- Causal Learning Facilitation.** 19 employees from various departments participated in the incident investigation course held in December 2019. This programme aimed to highlight HRC's Causal Learning methodology as part of HRC's journey to be a learning company that learns from incidents and shortcomings.
- Verification of Competency (VOC).** One of HRC's in-house contractor officially launched its VOC Campaign in November 2019. The VOC programme focused on how to check and verify the competency of the Run & Maintain working crew of the in-house contractor partners in HRC. This programme covers both training and assessment programmes that were customised to suit specific skill sets and nature of skilled workers amongst the crew on site. The four work categories prioritised are Grinding, Line First Cut, Circular Saw and Torque Wrench activities. The VOC is valid for two years before a refresher course is needed.

HRC also conducted other specific qualifications and structured training programmes. To name a few, they are:

- The Permit to Work (PTW) Levels 1 & 2 for supervisors - to ensure employees are clear on their responsibilities while performing hazardous activities on site; and
- First Aid and Confined Space competency training courses – to provide qualifications to Authorised Entry and Standby Person (AESP), Authorised Gas Tester and Entry Supervisor (AGTES).

WHAT WE DID IN 2019

CASE STUDIES

HRC is constantly finding ways to raise awareness on HSSE issues in cultivating individual ownership and responsibility for QHSSE matters among HRC's employees and business partners as all employees and business partners must comply with HRC's HSSE framework.

During the year, Leadership Team (LT) 'Turun Padang' and daily Goal Zero Walks contributed to a significant input in NMPI identifications and resolutions. Moving forward, HRC will be investing in improving these initiatives through a 'Now, Everyone Can Intervene!' campaign to sharpen the intervention culture within HRC.

LT 'Turun Padang': LT 'Turun Padang' is a weekly QHSSE walkabout that promotes visible safety leadership and serves as a pulse check on the current health of our HSSE standards implementation on site. It also creates an opportunity for leaders to engage with employees and business partners on HSSE matters, identify potential hazards and proactively mitigate them before the accidents occur.

Goal Zero Walk: Daily Goal Zero Walks, centered on different themes of key process assurance, are arranged for each day of the week. The themes are Process Safety Field Observation, PTW & HSSE, Ensure Safe Production or Process Isolation and Reliability.

We increased the number of campaigns and programmes in 2019 to address key themes identified from NMPI in 2018:

Tools / Equipment Safety & Preventing Personal Injury -

HRC conducted a 5-day campaign on "Tools / Equipment Safety & Preventing Personal Injury" to deliver a "learning through a demonstration" method on selected topics. The 30 minute daily sessions provided an avenue for employees and business partners to creatively present how to deal with common wrongful acts and emphasise the right ways of utilising powered tools, manual tools and maintaining a safe and clean working environment through 5S practices while they perform their work.

Bicycle Safety - "STOP, CHECK, GO!" -

During Phase 1 of this programme, participants were taught to perform self-checks before each ride, and 644 bicycles were inspected on-site before being awarded "Bicycle Safe For Use" stickers. In Phase 2, 130 bicycles were removed from the bike-stand areas for refurbishment and for HRC's future use, leaving more space for all cyclists to park their bicycles properly.

Segregation of Waste Is As Simple As ABC -

HRC's HSSE department, in collaboration with various other departments and with our in-house business partners, hosted this waste segregation campaign. The campaign aimed to improve waste segregation awareness through site-wide information sharing. Simultaneously, procedural and physical improvement efforts were carried out on waste management processes and facilities on-site. A series of fun and engaging roadshows were held in December 2019.



SAFETY DAY

Various events were organised to highlight HRC's Safety Day in November 2019.

Pre-Safety Day

- A Safety Day campaign was held to emphasise safety messages through creative performance. The event ended with an announcement of four finalists to participate in the Grand Finale during HRC Safety Day on November 2019.
- HRC organised a Master Chef Challenge 2019. The event attracted 18 groups of contestants competing to prepare healthy dishes based on food ingredients that were revealed just three hours before the challenge began. The competition invited four external dieticians and fitness instructors to judge and assess the menu based on calorie counts and balanced dietary requirements.



Staff and contractor partners prepare for HRC Pre-Safety Day 2019.

Safety Day

- HRC Safety Day 2019 was launched with the theme "Safety. Together. Forever". The event aimed to provide deeper reflection of past incidents through a Reflective Learning session, led by the HRC's LT, sharing their realisation on what they could have done better to prevent incidents on site.
- Fun games and tokens were awarded to attendees as appreciation for HRC's achievement of 9 million manhours without LTI in October 2019. The "Safety Got Talent" Champion for outstanding and creative performance in broadcasting the message of "Do Not Work Under Suspended Load" was also announced at this event. Awards for Safety Icon 2019 were given out and a personnel from Inspection won the title for his continuous efforts and good behaviour on safety.



Safety Awareness booth and activities prepared by HRC staff and contractor partners in Safety Day 2019.

MANAGEMENT REVIEW

HRC conducted an annual Management Review on HSSE and Environment Management Systems in May 2019 covering the period from May 2018 to May 2019. The HSSE Management Systems addresses the overall manner by which HRC manages HSSE & SP activities for all employees of the Company. The two-hour session brought the LT, Production Unit Manager (PUM) together with representatives from both HSSE and Process Safety teams. The main objectives and scope of the review included assessing the effectiveness, adequacy and sustainability of the site HSSE Management Systems, apart from meeting the requirements of ISO14001: 2015 Environmental Management Systems and ISO 45001: Occupational, Health and Safety Management Systems standards. The review was successfully carried out with some key improvement action items identified moving forward.

ENVIRONMENTAL SUSTAINABILITY

We are fully conscious of the need to utilise resources and energy more efficiently to minimise environmental impacts throughout our operations. Internal policies and Malaysia's environmental legislations provide a robust framework with stringent standards for environmental sustainability of HRC's refinery and the community around us.

Our Board of Directors places high importance in our agenda to mitigate environmental and climate change impacts. In 2019, HRC's Board of Directors endorsed the Environmental Policy and approved strategies to implement the ISO 14001: 2015 Environmental Management Systems audit, which was successfully approved for recertification, to ensure the standards and internal measures are on par with industry best practices in tackling such issues.

We actively manage our environmental footprint, including verification of our Greenhouse Gases according to ISO 14064-1 and successfully complied with the stringent limits under CAR 2014.



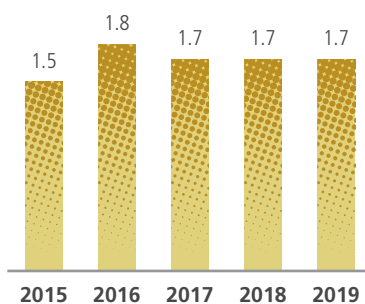
WATER AND EFFLUENTS

Water

We need to utilise water to generate steam and for cooling and cleaning purposes in our plant, a crucial part of our operations.

We take all necessary measures to ensure 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 boiler feed water. The amount that is recovered will vary depending on the process conditions, crude type and other factors.

Refinery Raw Water Consumption (Million m³)



Our raw water consumption has been consistent over the past five years, with slight fluctuations due to overall refinery processing requirements. Raw water is sourced from the state water utility company, Syarikat Air Negeri Sembilan (SAINS).

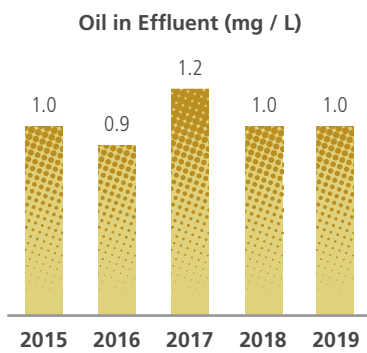
Our Business Continuity Plan (BCP) and procedures have been put in place to manage any disruptions to the refinery. We are ready to keep the plant running even after critical water supply failure. BCP will be triggered for uncontrollable incidents involving external / state infrastructure failure, natural disasters, internal asset failure or Information Technology (IT) system failure or 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 collaboration with Indah Water Konsortium (IWK), HRC has embarked on a feasibility study to improve the wider Port Dickson's area water consumption through the usage of recycled treated sewage water in the refinery process. If the findings of the study are positive, HRC may consider implementation of the project in 2020.

Effluents

Our Effluent Monitoring Programme provides measures to closely monitor treated effluent water (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 Malaysia Marine Water Quality Criteria and Standards (MMWQCS) respectively. The details of the findings are disclosed to DOE on a quarterly basis.



The combined treated and sea water quality levels in 2019 were found to be well within the prescribed regulatory and quality standards limits.

TARGET	2019 ACTIVITIES
Improve the overall treated effluent and water quality levels	<ul style="list-style-type: none"> Development of the Waste Water Masterplan (WWMP) to set out short and long-term efforts to improve site waste water facilities and provide comfortable margins in processing the amount of waste water released as effluent. Example of a short-term plan includes replacing site-wide Corrugated Plate Packs to improve oil / water separation efficiency. Long-term efforts involve review of the refinery drainage system capacity and evaluation of effluent treatment adequacy and efficiency to ensure quality of waste water specifications are continuously met. To date, Phase 1A (Development Stage) of the WWMP is completed. Planning work for installation of pH adjuster upstream of the effluent water treatment system, to improve compliance to regulatory pH specifications.

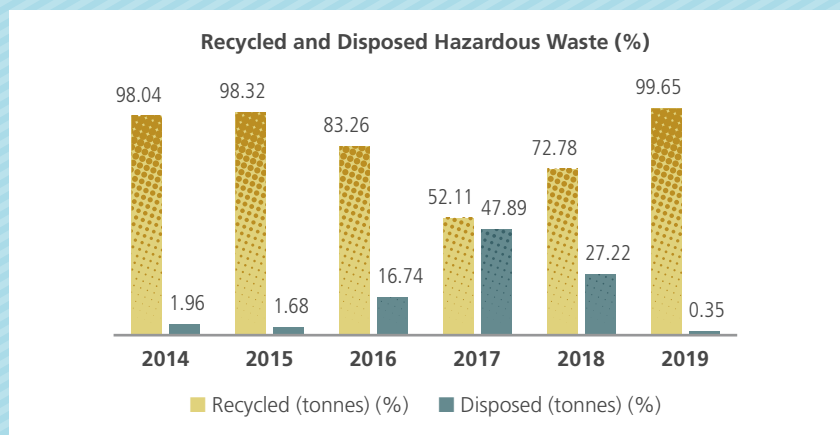
 **WASTE MANAGEMENT**

HRC aims to reduce or eliminate the discharge of waste materials that negatively impact the environment. Hence, we administer our waste management responsibly. All our waste is managed in accordance with Malaysian regulatory requirements.

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

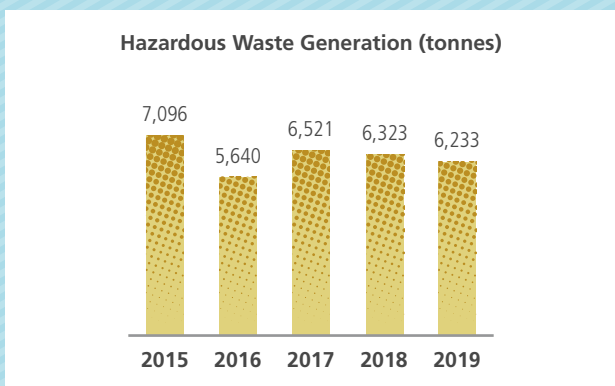
 **HIGHLIGHTS IN 2019**

Our Company strives to reduce the disposal of hazardous waste materials that negatively impact the environment receptors.

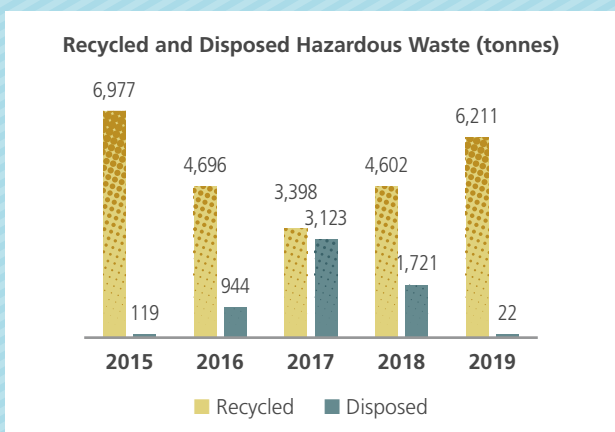


ENVIRONMENTAL SUSTAINABILITY

In our efforts to minimise disposal, we consistently look for ways to reduce, recycle or recover generated waste. HRC has observed a substantial improvement in its waste generation rate. In 2019, HRC generated a total of 6,233 tonnes of hazardous wastes, a reduction of 1.4 per cent as compared to 2018. When considering the waste generated by million barrels, it decreased by 21.4 per cent, from 194 tonnes / mln bbl in 2018 to 152.4 tonnes / mln bbl in 2019.



Our recycling rate increased from 72.8 per cent in 2018 to 99.7 per cent in 2019. The remaining 0.4 per cent was disposed at approved facilities. The improvement was a result of the appointment of a DOE approved scheduled waste collection company to recycle spent catalysts as raw feedstock for cement production. This initiative has helped HRC to reduce its disposal rate successfully by 98.7 per cent, from 1,721 tonnes in 2018 to 22 tonnes in 2019.



TARGET	2019 ACTIVITIES
Consistently look for other ways to reduce, recycle or recover generated waste	The waste segregation campaign, 'Segregation of Waste Is As Simple As ABC' was held in December 2019 to strengthen waste segregation awareness through site-wide informative sharing sessions.

EMISSIONS

In line with global and local efforts to reduce GHG emissions that significantly contribute to climate change, HRC is committed to taking steps to improve its operations to be more energy efficient and by keeping our emissions within prescribed limits at all times. This in turn will enable us to preserve our finite natural resources, lower our energy costs and reduce carbon emissions.

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

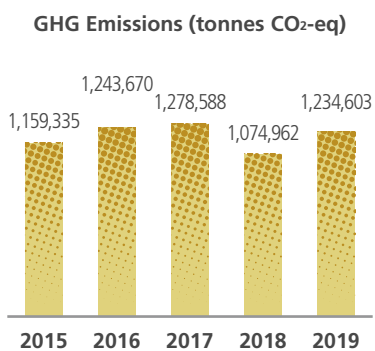
We use the methodology outlined in the API Compendium of Greenhouse Gas Emission Methodologies for the Oil and Natural Gas Industry 2009, Intergovernmental Panel on Climate Change (IPCC) and ISO 14064-1 to calculate our emissions in line with international best practices. HRC's GHG emissions include direct GHG emissions from stationary combustion, flaring, process and fugitive emissions together with indirect emissions from the use of imported electricity are measured as CO₂ equivalent emissions.

HRC has successfully undertaken an independent verification of our GHG emissions in 2019 by SIRIM QAS International in accordance with ISO 14064-1 and in line with international best practices.

GHG Emissions (tonnes CO₂-eq)

Total GHG emissions in 2019, which includes both Scope 1 and Scope 2 emission, increased by 3 per cent compared to the baseline year 2007 (1,196,250 tonnes CO₂-eq), and increased by 15 per cent compared to 2018 (1,074,962 tonnes CO₂-eq). This increase in GHG emissions was due to the rise in the overall refinery throughput in 2019 as this was the highest since 2013. The GHG emission in 2019 (1,234,603 tonnes CO₂-eq) showed slight decrease in comparison to 2017 (1,278,588 tonnes CO₂-eq) for normal operations despite having higher throughput mainly due to the newly updated electricity emission factor in accordance with the 2017 Electricity Baseline published by Malaysia Green Technology Corporation.

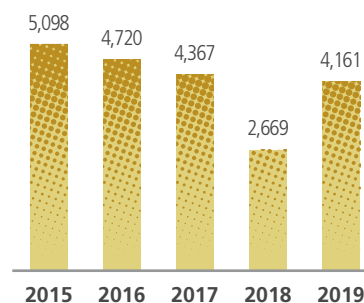
Nevertheless, our GHG emissions per million barrels produced in 2019 has shown a 8.5 per cent improvement in carbon efficiency from 2018, at 30,186 tonnes CO₂-eq. / mln bbl in 2019 as compared to 32,974 tonnes CO₂-eq. / mln bbl in 2018 and stand at HRC's lowest GHG emission ever since 2013. This improvement in GHG emission is also aligned with the enhanced overall energy efficiency due to implementation of energy tactics in 2018, increased plant utilisation coupled with more efficient and cleaner equipment post MTA in 2018.



SOx Emission (tonnes Sox-eq / million per barrel)

Our SOx emissions increased by 56 per cent, at 4,161 tonnes SOx-eq. in 2019 as compared to 2,669 tonnes SOx-eq. in 2018 aligned with the increase in refinery throughput. SOx emissions in 2019 decreased by 7.5 per cent in comparison to 2017 at normal operation despite higher throughput in 2019 due to the installation of Wet Gas Scrubber (WGS) as part of the CAR project. The main objectives of the flue gas scrubbing unit (FGSU) or WGS is to control SOx and PM emission from the LRCCU in compliance with CAR 2014.

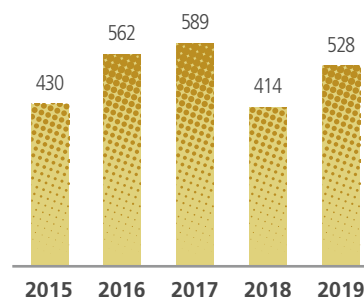
SOx Emission (tonnes Sox-eq / million per barrel)



NOx Emissions (tonnes NOx-eq / million barrel)

Our NOx emissions increased by 27.7 per cent compared to 2018, with 528 tonnes NOx-eq. Additionally, our NOx emissions per million barrels produced showed only 1.7 per cent reduction in NOx efficiency compared to 2018, at 12.9 tonnes NOx-eq. / mln bbl notwithstanding the 25 per cent rise in refinery throughput due to implementation of energy tactics and more efficient operations.

NOx Emissions (tonnes NOx-eq / million barrel)



ENVIRONMENTAL SUSTAINABILITY

TARGET	2019 ACTIVITIES
Improve and monitor emission from refinery sources in accordance with CAR 2014	Successful completion of the CAR project with the commissioning of scrubber stacks and safely emitting fluffy white plumes containing mostly water vapour in compliance with CAR 2014.
Produce cleaner fuels and help create a cleaner living environment for Malaysians	HRC is on track to carry out the action plan to comply with the Government’s mandate that all refineries in Malaysia must comply with Euro 5 specifications by 1 September 2020. Euro 5G project is intended to allow HRC to produce cleaner Euro 5 specification diesel by 2020.
Reduce carbon footprint by minimising GHG emissions from our operations	<p>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 programmes for storage and equipment are also in place to ensure that GHG emissions from storage and fugitive emissions are minimised.</p> <p>Implementation of energy tactics such as reduction of steam in feed preheating, optimisation of excess oxygen to save fuel in Crude Distiller Unit (CDU) furnaces and boilers, fuel gas firing reduction in Hydro Desulfurization Unit 2 (HDS2) furnace through logic change and minimisation of fuel oil firing also lead to better energy efficiency.</p>



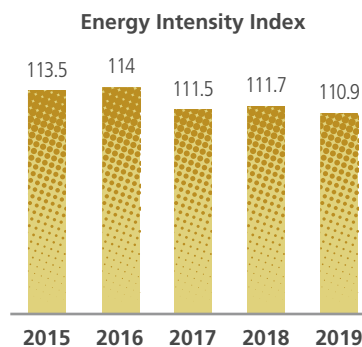
ENERGY

We continue to find ways to improve the overall energy efficiency of our refinery while ensuring minimal impact on the environment.

We use the Solomon Associates Energy Intensity Index (EII) to measure our refinery energy performance by comparing actual consumption against standard consumption. The Solomon Associates’ approach takes into account plant load, feed quality, plant complexity and severity of the major process units and utilities. The EII target is set annually and monitored regularly to ensure process units are operated at an optimum level in terms of energy efficiency for any given unit throughput, thereby optimising the use of valuable fuels and minimising unnecessary flaring. Our overall aim is to cut down on energy costs and reduce CO₂ emissions to the environment.

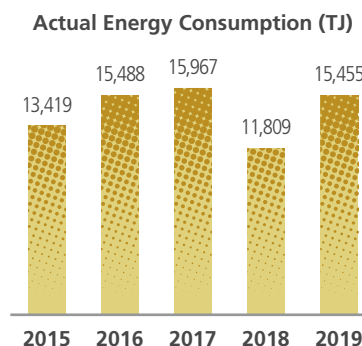
Energy Intensity Index

HRC’s Energy Intensity Index for the past five years is as follows:



Actual Energy Consumption

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





HIGHLIGHTS IN 2019

- Our overall energy efficiency for 2019 improved as compared to the previous years predominantly due to increased plant utilisation coupled with more efficient and cleaner equipment after the MTA activity in 2018. Implementation of energy tactics such as reduction of steam in feed preheating, optimisation of excess oxygen to save fuel in CDU furnaces and boilers, fuel gas firing reduction in HDS2 furnace through logic change and minimisation of fuel oil firing also lead to better energy efficiency.
- There has been a significant rise in the monthly average fuel gas flaring in 2019 relative to 2018 and 2017. This is mainly attributable to the heavy fuel gas flaring in October 2019, where there was a lack of fuel gas users due to the shut down of the utility boiler (UTB) and the CDU process units. The flaring numbers were compounded when LRCCU experienced a trip in November 2019.
- A 2019 Energy Improvement Plan was designed to facilitate our refinery towards achieving its energy goals for 2019.

The plan consisted of five key strategies:

- 1) Rejuvenate and localise the CO₂ and Energy Management (CEM) framework;
- 2) Preempt future energy challenges;
- 3) Catch low hanging fruits;
- 4) Leverage on energy tools for monitoring and gap analysis; and
- 5) Improve energy efficiency of boilers and furnaces.

These strategies contain specific tactics which have been implemented in 2019 - review and revamp of energy dashboard to enable more effective collaboration among operation shift teams, energy gap tracker update and housekeeping, energy predictor model update, day-to-day fuel optimisation and flaring reduction, improvement of excess oxygen in furnaces and boilers, completion of process effective review (PER) for CEM to identify gaps and develop sub-action plans, and completion of flare gas recovery unit feasibility study.

Responding to Public Grievances

Public Concerns & Complaints

HRC received five public concerns and complaints in 2019 related to Noise, Flaring, Plume and Security.

BRIEF DESCRIPTION OF COMPLAINT	ACTION TAKEN
<p>Four complaints received about whining noise from refinery</p>	<p>Thorough noise checks were performed upon receiving complaints from the community. Noise mapping was conducted by a multidisciplinary team on a few spotted high noise areas.</p> <p>Drones were deployed to monitor flare stack / structure.</p> <p>Immediate engagement and clarification were provided to the complainant.</p> <p>After investigations were completed, root cause was identified and issue was resolved.</p> <p>A face-to-face engagement session with the residents was held at the complainant's house. HRC's Chief Operation officer attended the session to provide updates, information and mitigation actions to the residents.</p>
<p>Complaint received about thick white plumes from WGS</p>	<p>An engagement session with Kampung Arab Committee and residents was held in October 2019 together with representatives from the local authorities. The misunderstanding was clarified with residents who now have a better understanding on the new cleaner white plumes which was actually just largely water vapour, as HRC complies to the new requirements of CAR 2014.</p>

TARGET	2019 ACTIVITIES
<p>To improve refinery overall energy efficiency and strive to achieve the annual EII target of 108.86</p>	<p>EII index of 110.9 in 2019</p>
<p>To optimise fuel consumption and minimise flaring</p>	<p>Implementation of Energy Improvement Plan</p>

LEARNING FROM INCIDENTS (LFI)

HOW WE ADDRESS, MITIGATE AND PREVENT REPEATS

INCIDENT	IMMEDIATE ACTION TAKEN	OUTCOMES
1. Underwater PLEM sustained damage to an underwater valve reported in September 2019.	<ul style="list-style-type: none"> • Repair works carried out to swap the defective valve with a bellow spool. • Completion of the hydrotest at the end of October 2019. 	Process units started up progressively and the first crude vessel berthed at the jetty for crude discharge at the end of October 2019.
2. Effluent water from jetty sampling point recorded high pH reading of more than 9.0, exceeding the regulatory limit (June 2019).	<ul style="list-style-type: none"> • The screw pumps to jetty were immediately stopped. • The pH mapping from all probable sources was also conducted and has resulted in readings within limit, except for Holding Basin B. 	<ul style="list-style-type: none"> • Effluent water quality improved. • Technology team initiated a study to see the relationship of pH, effluent water with scum and temperature (due to recent hot weather).
3. Effluent water sample from Jetty discharge (June 2019) high Total Iron (8.0 mg / L against limit of 5.0 mg / L) and Zinc (2.1 mg / L against limit of 2.0 mg / L), exceeding the regulatory limit.	<ul style="list-style-type: none"> • Immediate investigation found that the sudden increase was due to excavation work for one of the project sites within our refinery. • Potentially the naturally occurring elements in the soil entered our effluent system. 	<ul style="list-style-type: none"> • Upon maintenance of the project site and removal of the earth stockpile, the effluent reading has improved to be within the limit. • Effluent water quality improved based on sample taken in June 2019, which tested below the regulatory limit.

ADDITIONAL ENVIRONMENTAL HIGHLIGHTS

- In September 2019, HRC's SBM (a loading buoy anchored offshore, that serves as a mooring point and interconnection for offloading of crude oil) located at HRC's jetty in Port Dickson, sustained damage to its PLEM valve and had to undergo repairs. The SBM returned to normal operations by early November 2019 after repair works were carried out successfully with no environmental pollution despite difficult working conditions. The refinery intake was reduced by approximately 50 per cent as a result of the incident. However, the Company immediately put in place mitigating measures to ensure there were no disruptions of production supplies to its customers. There was no environmental impact and relevant government authorities were informed of the incident.
- In 2019, HRC adopted a new Environmental Policy (endorsed by the Board of Directors) in line with HRC's commitment to protect the environment and minimise environmental footprint. The Environmental Policy was communicated to all employees and business partners in June 2019 via electronic mail and made available at HRC's website under the HSSE's Policies section. The Policy is also displayed at various strategic locations on site.
- Euro 4M construction site hosted its fourth and fifth environmental compliance audit for the project in May and August 2019, conducted by DOE approved external auditors. Findings were favourable with zero fines issues. However, minor findings were raised on soil erosion protection and sediment control on site for the audit in May, and dust suppression control and general housekeeping improvement for the audit in August. All the issues were rectified immediately by the Euro 4M contractor.
- In line with HRC's commitment to continually improve our environmental practices, a site environmental assurance programme called Green Walk has been enhanced and re-introduced in August 2019. This monthly walk by members from various departments covers a few environment hot-spot locations. The audit scope covers both site verification and desktop checks to ensure full compliance to all regulatory requirements as per the Environmental Quality Act (EQA) 1974.

SOCIAL SUSTAINABILITY

We deeply value our people and are closely connected with the local community who might be impacted by the work that we do. We continue to find ways to provide a safe and secure working environment, learning culture and opportunities through fair working practices to build a sustainable workforce for the future. It is vital for us to uphold our social responsibility by uplifting the lives of our neighbours through environmental, social and educational causes that matter to us all.

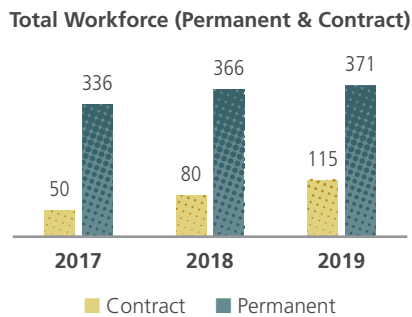


EMPLOYMENT

Our people are an integral part of HRC's success and sustainability. HRC has established policies, including the HR Benefits Policy, that cover its employment practices including recruitment, promotion, dismissal, working hours, leaves, insurance, compensation, training and development and benefits.

Our workforce comprises of a diverse group of people from various races and age group.

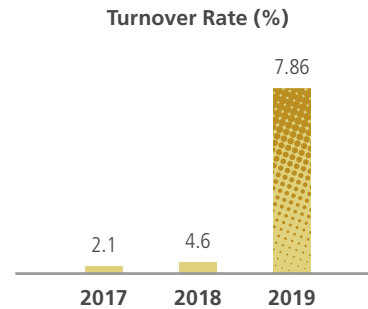
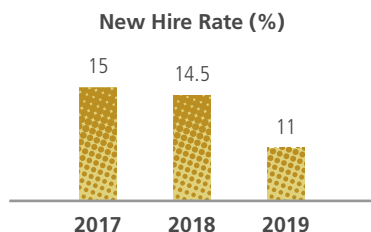
General Workforce Statistics for HRC



As at 31 December 2019, the total headcount for permanent and contract employees is 486. HRC continues to hire and fill positions in various departments to cater for operational requirements and business growth.

Turnover was higher at the beginning of the year as there were a lot of opportunities available in the market due to the start up of a new refinery and business expansions of refineries in Malaysia and within the region. These offered opportunities to talents who wished to take up new challenges and experience new working environments.

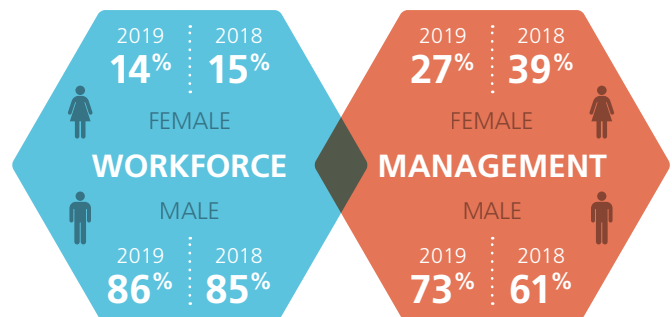
The Company actively responded to the increased turnover by launching a Talent Retention programme in June 2019 to ensure that our people are continuously motivated and loyal to the organisation. Details of our new hire and turnover rates for 2019 are as follows:



Diversity and Equal Opportunities

We aim to be a company with a diverse workforce that does not discriminate employees based on race, ethnicity, religion, age, disabilities, gender or political beliefs.

The gender diversity in our workforce as at 31 December 2019 comprises of 14 per cent female and 86 per cent male employees. At the management level, 3 out of 11, which is 27 per cent, are female.

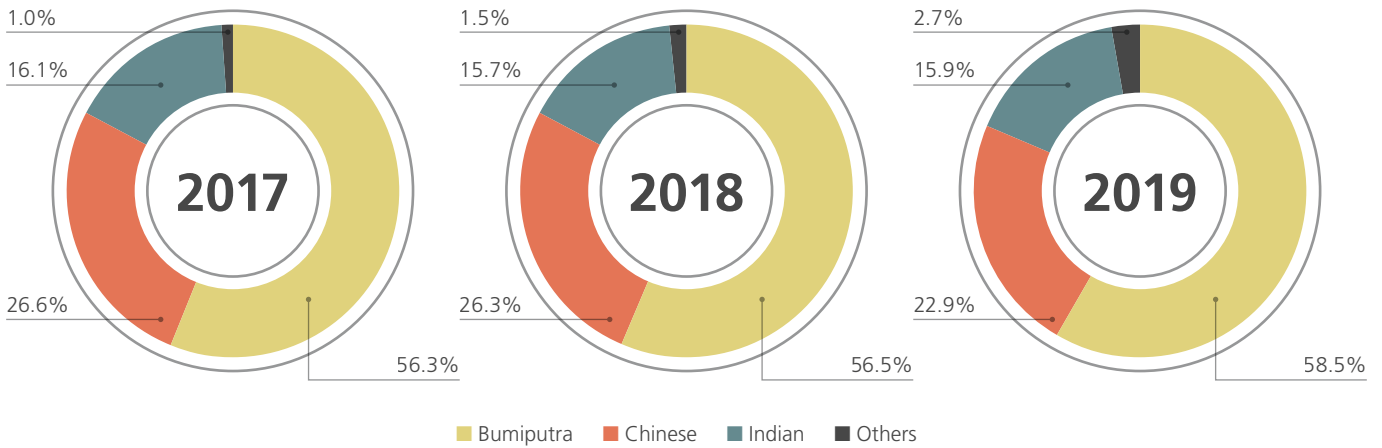


We remain committed to find ways of addressing a gender balanced workforce at all levels of the Company. HRC's SWAN programme, serves as a platform that enables female workers to develop and grow both personally and professionally.

SOCIAL SUSTAINABILITY

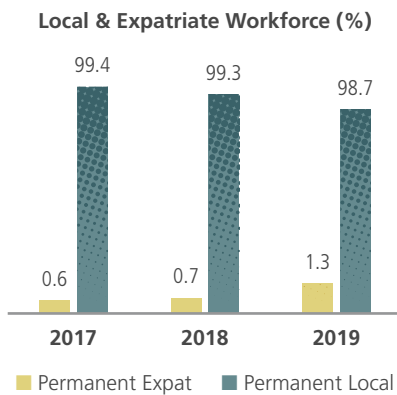
Ethnic Diversity in 2019

The ethnic diversity in our workforce as at 31 December 2019 comprises of 58.5 per cent Bumiputra, 22.9 per cent Chinese, 15.9 per cent Indian and others forming 2.7 per cent of the employees.



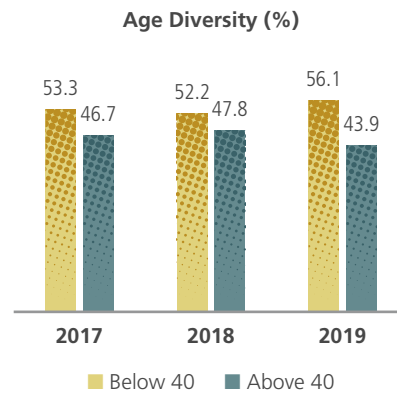
Local & Expatriate Workforce

Our workforce is built mainly on local Malaysian talent, comprising of all major ethnic groups. This is in line with the national demographic statistics. In 2019, we had five expatriates in our employment. They were hired for their extensive skills and experience.



Although we strive to maintain a balanced workforce in terms of age diversity, we have seen a slight increase in the number of employees below 40 in 2019 as compared to 2018 after several employees retired in 2019. We acknowledge that having a balanced age group is a huge factor in ensuring that the Company is able to tackle a wide range of issues due to the varied input and work experiences of employees from different age groups.

We will continue in our efforts to provide a life-long learning and development culture to ensure our employees keep up with the ever-changing business landscape.



Recruitment and Retention

Our people are the most valuable asset for our Company. We constantly find better ways to attract and retain talent and expertise for our long-term success.

We provide various programmes for youth which helps develop succession planning for the next generation of employees:

- **HRC Graduate Programme**

Site specific graduate programmes to support hiring and development of local talent.

- **Internship Programme**

In 2019, we offered 27 trainees practical experience across all departments in the Company for a period of 6 to 9 months.

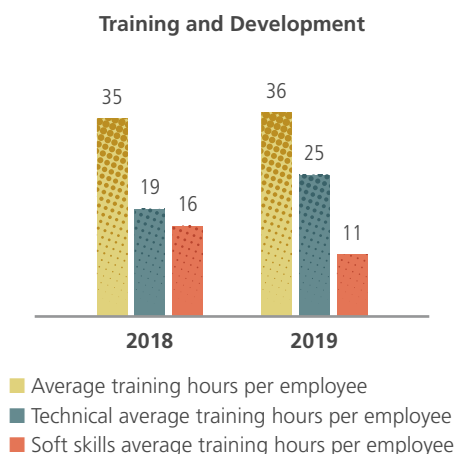
We want to ensure our people stay happy by providing competitive remuneration and benefits driven through our Employee Value Proposition (EVP) initiatives. The EVP is reviewed annually against industry benchmarks to ensure it remains competitive.

Long-service awards are given to reward employees' commitment and loyalty. Teams and individuals continue to be formally recognised in a weekly "Pride Moment" for their contribution to the Company's business performance. We also practice a transparent annual performance appraisal process to evaluate work performance.

Training and Development

We foster personal and professional growth for employees within our Company by providing opportunities for personal development and to enhance their skills on the job. The training provided covers both technical and non-technical areas to enhance technical as well as leadership and personal development skills. HRC also supports its employees to pursue additional training and development under its continued education assistance policies.

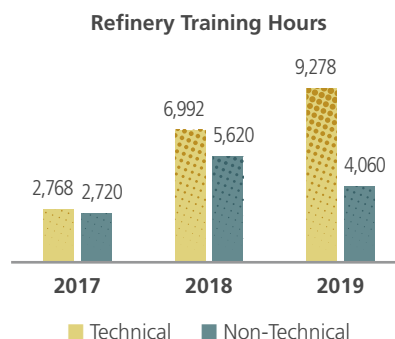
Training Hours



- In 2019, we surpassed our target of 16 hours of training per person per annum, achieving an average of 36 training hours per employee. This was due to a significant increase in technical training programmes provided under QHSSE and higher compliance by the line managers to follow the training as scheduled.

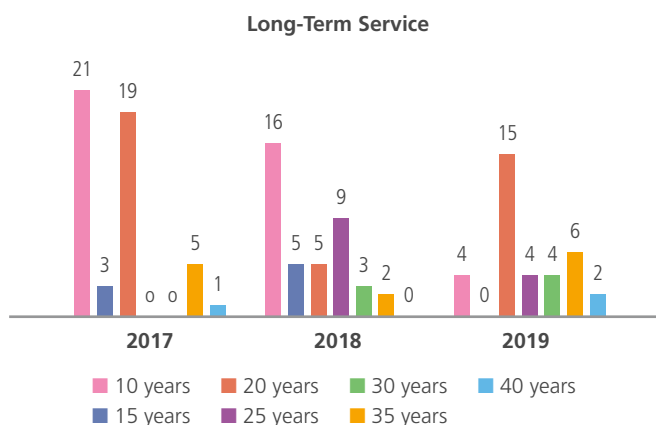
- Technical average training hours per employee is 25 hours.

- Soft skills average training hours per employee is 11 hours.



Long-Term Service Awards

We reward our long-term employees who have been with the Company for more than 10 to 40 years during our annual dinner. In 2019, we honoured two employees who have served over four decades.



Long Service Award Presentation during HRC Annual Dinner 2019.

SOCIAL SUSTAINABILITY

Employee Engagement

Employee Grievance Mechanism

Our grievance mechanism process provides a formal avenue for our employees to raise complaints, difficulties or any dissatisfaction faced by our employees. There are opportunities for confidential discussions in a formal or informal manner through line managers or, if escalated, through the HR manager, Chief Executive Office or both, if issues cannot be resolved. Our Whistleblowing Policy and the newly set up BWC also provides a channel for employees to raise any potential violation of policies or procedures in a safe and secure framework.

Harassment or Bullying

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

Human Rights

We are serious about how our employees are treated and the fundamental human rights principles expressed in the UN Declaration for Human Rights and the UN Guiding Principles on Business must be upheld at all times.

Fair Wages and Child Labour

We strive to adhere to Malaysian laws and regulations to ensure that our employees are protected by, amongst others, meeting minimum wages, proper working hours and prevention of child and forced labour.

Membership

HRC is a member of Malaysia Employers Federation (MEF), the main organisation of private sector employers in Malaysia, which organises consultation and discussion among its members to seek the adoption of sound principles and practices of human resource industrial relations.



HIGHLIGHTS IN 2019

- Be Well 2.0.** Be Well 2.0 was officially launched at HRC's HR Day on 31 August 2019. This programme consists of three main categories namely 'Eat Well', 'Move Well' and 'Think Well', and is on-going from September 2019 through to August 2020. The programme aims to encourage healthy balanced lifestyles for employees while addressing concerns of non-communicable diseases such as diabetes, hypertension, heart disease, obesity as well as psychological stress.
- HR Excellence Award.** HRC was a finalist for the 'Be Well Program 2018' in the Corporate Wellness category at the HR Excellence Award held in Kuala Lumpur in October 2019. The 'Be Well Program 2018' stood on par with some of the existing corporate giants who were seasoned participants in this competition.
- MSOSH Award.** At the MSOSH Award Program 2019 for the WPP Health Award, HRC was the only participating company to receive a "Level 3" (the highest level for this year) recognition, as a company with well-equipped and structured WPP programmes. HRC aspires to achieve the Level 5 (highest) award at the next round of competition through its refreshed "Be Well 2.0" campaign launched in late 2019.
- HR Day.** This two-day event held on 21 and 22 August 2019 aimed to provide awareness on the Reward and Benefit policies for new employees. It served as an avenue for all employees to clarify their benefits and entitlements. Government agencies such as the Employee Provident Fund (EPF), Social Security Organisation (SOCSO) and the Inland Revenue Board (IRB) were also invited to participate at the event.
- Employee Engagement Survey.** This was the second Employee Engagement Survey conducted post HRC's 2016 transition. The survey attracted a record high of 90 per cent participation. There were altogether 12 dimensions with a total of 54 questions listed. The survey showed that employees viewed the Company as a responsible organisation in matters concerning the environment and with high integrity when dealing with the society / community. The Company scored well on employee engagement matters. However, a few areas for improvements were highlighted on Organisational Leadership and Operational Excellence. A team has been set up to address the issues identified.
- Trade Union.** We work closely with the Trade Union to ensure that employee issues and concerns are dealt with appropriately and amicably. A three-year Collective Agreement was renegotiated and signed with the Trade Union in June 2019. The agreement regulates the relationship between Company and the Trade Union members. One key highlight in the recently signed agreement is the change of the shift structure on the number of rest hours, from an eight-hour basis to a twelve-hour basis. This is a significant milestone for the Company and is aimed to enhance employee work / life balance and on-site maintenance productivity. The Company and the Trade Union are very proud that the Collective Agreement continues to be one of the very few arrangements that adopt the Productivity Link Ways System, a productivity linked wages system, in Malaysia.

As at 31 December 2019, 157 HRC employees are members of the Trade Union.

- Festive Celebrations with Employees.** Every year, HRC celebrates cultural festivities with our employees and this has become a consistent opportunity to foster interaction between management and employees. We organised three festive gatherings in 2019 to celebrate with our employees: Festivities for Chinese New Year was held on 18 February 2019, Hari Raya on 14 June 2019 and Deepavali on 4 November 2019.



Chinese New Year Staff Gathering 2019.



LOCAL COMMUNITY

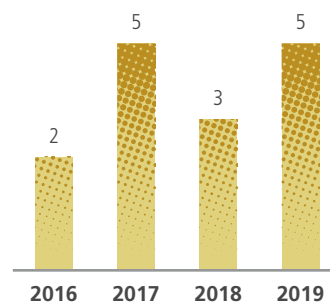
As an employer in Port Dickson since 1963, we have a social responsibility to give back to the people and community impacted by our business. We engage actively in corporate social responsibility (CSR) programmes that benefit the local community in some way or another. We are certain that our efforts contribute to HRC's reputation as a trusted and reputable Company in the area.

We continue to manage concerns from our neighbours through our community feedback mechanism. All complaints received by the Company are fully investigated to ensure that concerns are promptly and properly addressed and mitigated.

We commit to address complaints within 48 hours after receiving it. Our Public Information Officers (PIO) on duty, with the support of our Corporate Affairs team, keep in close communication with the complainants until a satisfactory feedback has been received and the record can be closed. Some examples of how public grievances are dealt with are found in page 35 of this Report.

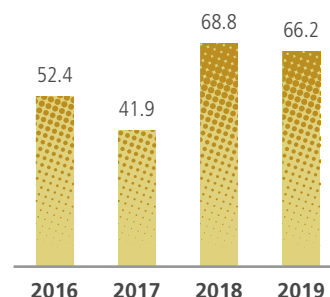
TARGET	2019 ACTIVITIES
Develop and retain talented workforce	<ul style="list-style-type: none"> Graduate Programme Identification of critical positions / critical talent Annual review of EVP Retention Scheme Interdepartmental transfers to refresh and nurture high potential employees and provide career advancement opportunities.
Improve HR operational efficiencies	<p>A new Human Resource system was rolled out in October 2019 to replace the existing HR system, to automate and simplify HR processes and improve productivity across the site.</p> <p><i>Further information on the automated system are also discussed in page 16 of the Report.</i></p>

Number of Public Complaints



We are committed in our investments to various outreach programmes that create value for our community, people and our Company. We focus our investments on three main pillars that represent our values: Education, Environment and Social. A list of the contributions are set out in the next section of this Report.

Social / Community Project Investment (RM'000)



WHAT WE DID IN 2019

COMMUNITY ENGAGEMENT ACTIVITIES



EDUCATION

Kampung Sunggala Children's Library

HRC contributed RM3,000 to the Children's Library in Kampung Sunggala, as part of our long-term CSR programme to ensure sustainable education for native children. We provided support and maintenance to upkeep the facilities, which included the construction of a new fence surrounding the cabin areas to enhance safety.

Back to School Programme

We contributed RM2,000 to the Majlis Pengurusan Komuniti Kampung (MPKK) of Kampung Paya to support children from underprivileged families with school uniforms and other necessities as part of the 2020 Back to School Programme. A total of 42 students were identified for the programme.



ENVIRONMENT

Community Park Cleaning Campaign

HRC partnered with Chung Hua High School and the Port Dickson town council to clean up a community park in Port Dickson and to raise awareness on keeping the environment clean. HRC sponsored RM1,000 for the event including the provision of hand gloves and breakfast. This event also provided students with an opportunity to participate proactively in community service, understand the importance of caring for the environment as well as gain merit points for their academic performance.



Local students participation in the community park cleaning programme.



Local Jetty Cleanup Activity

HRC jointly organised a community cleanup event with the Port Dickson Fisherman Association to cleanup the jetty area in Port Dickson, which is two kilometres from HRC's jetty, and repair the wooden bridge for the local fishermen. The event aimed to raise awareness on safety among the local fishermen and to ensure the jetty environment is clean to prevent dengue mosquitoes breeding.

DOE's World Environmental Day

HRC, as one of DOE's strategic partners, collaborated on a 3R campaign at a local school to encourage and educate local students to reuse and recycle unused materials as part of DOE's World Environmental Day initiative.

 **SOCIAL**

Festive Celebrations

Mandarin Oranges Distribution

In conjunction with Chinese New Year, HRC partnered with MPKK of Kampung Teck Lin to distribute mandarin oranges to senior citizens at Kampung Teck Lin, which is located two kilometres away from HRC's refinery. We contributed 50 boxes of oranges and packets of Shandong peanuts to fifty families. The event was attended by our CEO and MPKK's Ketua Kampung.



Ramadhan Food Distribution

In conjunction with the month of Ramadhan, HRC distributed 350 packets of rice to 25 families. The villages involved were Kampung Gelam, Kampung Air Meleleh, Kampung Arab and Kampung Paya, all located three kilometres away from the refinery. The event was attended by our CEO, the management team and all the Ketua Kampung from the respective villages.



Deepavali Food Hamper Distribution

HRC distributed hampers to 26 families in Port Dickson to prepare for Deepavali. The hampers consisted of daily necessities such as rice, milo powder, flour, sugar and cooking oil. The event was attended by our CEO, management and Company volunteers.





With the integration of sustainability measures into the strategy, management and operations of the Company, we hope that these initiatives will continue to build a sustainable business for the future. We aim to continuously enhance and improve our sustainability efforts.

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

ACRONYMS & ABBREVIATION

ABC	Anti-bribery and corruption	HSSE & SP	Health, Safety, Security, Environment and Social Performance
ABMS	Anti-Bribery Management Systems	ISO	International Standards Organisation
AIA	Asset Integrity Assessment	KPIs	Key Performance Indicators
API	American Petroleum Institute	LFI	Learning from Incident
BAC	Board Audit Committee	LPG	Liquefied Petroleum Gas
bbI	Barrel	LRCCU	Long-Residue Catalytic Cracking Unit
BCP	Business Continuity Plan	LTI	Lost Time Injury
BRMC	Board Risk Management Committee	mln	Million
Bursa	Bursa Malaysia Securities Berhad	MPKK	Majlis Pengurusan Komuniti Kampung
CAIR	Corrective Action Inspection Request	MSOSH	Malaysian Society for Occupational Safety & Health
CAR 2014	Clean Air Regulations 2014	MTA	Major Turnaround
CDU	Crude Distiller Unit	NC	Non-Conformance
CEO	Chief Executive Officer	NCOSH	National Council of Occupational Safety & Health
Code	Code of Conduct	NMPI	Near Miss and Potential Incident
CO₂	Carbon Dioxide	NO_x	Nitrogen oxides
CSR	Corporate Social Responsibility	OHSAS	Organisational Health and Safety Assurance Standard
DOE	Department of Environment	PIO	Public Information Officer
DOSH	Department of Occupational Safety & Health	PPE	Personal Protective Equipment
EES	Economic, Environmental and Social	PQ	Product Quality
EII	Energy Intensity Index	PQI	Product Quality Incident
EMT	Emergency Management Team	PS9F	Process Safety 9 Fundamentals
ER	Emergency Response	PSE	Process Safety Event
ESG	Environmental, Social and Governance	PTIE	Proactive Threats Identification Elimination
EVP	Employee Value Proposition	QHSSE	Quality, Health, Safety, Security and Environment
FGSU	Flue Gas Scrubbing Unit	SDGs	Sustainable Development Goals
FiRM	Fire, Rescue and Medical Team	SO_x	Sulphur oxides
GHG	GreenHouse Gas	SWAN	Site Woman Action Network
GRI	Global Reporting Initiative	TRCF	Total Recordable Case Frequency
GSR	Guided Self-Regulation	UN	United Nations
HDS2	Hydro Desulfurization Unit 2	WGS	Wet Gas Scrubber
HEMP	Hazards and Effects Management Process	WWMP	Waste Water Masterplan
HGBP	Hengyuan General Business Principles		
HR	Human Resources		
HRC	Hengyuan Refining Company Berhad		
HSSE	Health, Safety, Security and Environment		

