

# SUSTAINABILITY REPORT 2017



集永成机构有限公司  
CHIP ENG SENG CORPORATION LTD



# About This Report

This is Chip Eng Seng Corporation Ltd's ("Chip Eng Seng" or the "Group") inaugural Sustainability Report. The report covers Chip Eng Seng's performance on the Group's material Environmental, Social and Governance ("ESG") factors.

## REPORTING PERIOD AND SCOPE

This report covers Chip Eng Seng's ESG performance for the period 1 January 2015 to 31 December 2017. The ESG data included in this report refer to Chip Eng Seng's business operations in Singapore and excludes overseas entities as well as the Group's hospitality division unless stated otherwise. The report mainly covers the Construction Division and the Property Development Division, which together contribute to 94% of the total Group revenue. We plan to include the hospitality business within the scope of reporting in future.

## SUSTAINABILITY REPORTING FRAMEWORK

This report has been prepared in accordance with the GRI Standards: Core option. The Global Reporting Initiative's GRI Standards are the most widely used sustainability reporting standards internationally. The report complies with the SGX-ST Listing Rules (711A and 711B) and the SGX Sustainability Reporting Guide. A GRI Index, as well as an SGX Primary Components Index presented at the end of the report, indicates the location of the relevant disclosures.



CES Centre

## About This Report

For measuring and reporting Chip Eng Seng's carbon footprint, we have applied the Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard.

We have also identified the UN Sustainable Development Goals (SDGs) which align with our material ESG topics and where we see the potential to contribute.

### REPORTING PROCESS

Chip Eng Seng's Board of Directors (the "Board") provides direction to the management in developing sustainability reporting. The Board has the responsibility to determine the material ESG factors and disclosures for sustainability reporting.

A Sustainability Management Committee, headed by the Group's chief executive officer as chairman and the chief financial officer as deputy chairman, assists the Board in identifying material ESG factors as well as stakeholder concerns and expectations. The members of the Committee include senior management executives from key functions and business units. Under guidance from the Board, the Committee oversees the development of sustainability report content and prioritisation of sustainability topics.

A sustainability reporting project team is responsible for collecting and verifying ESG performance data in preparation of the sustainability report.

Chip Eng Seng is committed to publishing its sustainability report on an annual basis.

### REPORT CONTENT AND QUALITY

The content of the report has been determined on the basis of materiality assessment, analysis of stakeholder expectations and potential ESG risks and opportunities arising from our business activities.

We have applied the principles of accuracy, balance, clarity, comparability, reliability and timeliness to help stakeholders assess our sustainability performance.

ESG data provided in the report have mainly been extracted from internal information systems and primary records to ensure accuracy and consistency. International measurement units have been used for presenting the ESG data. Financial figures are in Singaporean dollars unless specified otherwise.

### RESTATEMENTS

As this is our first sustainability report, restatements do not apply.

### ASSURANCE

We did not seek external assurance for this sustainability report. We have relied on internal verification to ensure the accuracy of data. Our ESG performance data are reported in good faith and are accurate to the best of our knowledge.

### AVAILABILITY

This report is available in PDF format for download on our website at [www.chipengseng.com.sg](http://www.chipengseng.com.sg)

### FEEDBACK

Stakeholders are welcome to send their feedback or suggestions regarding this report to us at [sustainability@chipengseng.com.sg](mailto:sustainability@chipengseng.com.sg)

## ESG PERFORMANCE SUMMARY

| MATERIAL ESG FACTORS  | 2015           | 2016           | 2017           |
|---|----------------|----------------|----------------|
| <b>ENVIRONMENTAL</b>  |                |                |                |
| Carbon emissions at construction sites (tCO <sub>2</sub> )                            | 3,499          | 3,837          | 4,084          |
| Carbon emissions intensity at construction sites (KgCO <sub>2</sub> /m <sub>2</sub> ) | 19.6           | 18.4           | 19.0           |
| Electricity used at construction sites (kWh)  | 1,023,091      | 751,481        | 1,155,279      |
| Energy used at construction sites (GJ)  | 48,280         | 53,854         | 56,417         |
| Energy intensity at construction sites (GJ/m <sup>2</sup> )                           | 0.271          | 0.259          | 0.271          |
| Construction waste (tonnes)   | 7,093          | 4,448          | 5,830          |
| Construction waste (kg/m <sup>2</sup> )   | 40             | 21             | 28             |
| Water used at construction sites (m <sup>3</sup> )                                    | 288,459        | 141,541        | 173,964        |
| Water used at construction sites (m <sup>3</sup> /m <sup>2</sup> )                    | 1.62           | 0.68           | 0.83           |
| <b>SOCIAL</b>   |                |                |                |
| <b>Employees</b>  |                |                |                |
| Full-time employees   | 414            | 368            | 361            |
| Female employees (%)  | 29             | 30             | 32             |
| Female managers and supervisors (%)   | 29             | 29             | 31             |
| Average training hours per employee   | 6.5            | 6.9            | 8.6            |
| Training expenditure per employee (\$)  | 194            | 196            | 275            |
| Annual employee turnover rate (%)   | 26.4           | 21.6           | 16.8           |
| New hires   | 62             | 34             | 53             |
| <b>Occupational Health and Safety**</b>   |                |                |                |
| Accident Frequency Rate (AFR)   | 1.3            | 0.2            | 0.3            |
| Workplace Injury Rate (WIR)   | 300.5          | 57.9           | 103.0          |
| Accident Severity Rate (ASR)  | 60.1           | 19             | 14.6           |
| Occupational Disease Rate   | 0              | 0              | 0              |
| Fatal Accidents   | 0              | 0              | 0              |
| <b>Community</b>  |                |                |                |
| Community donations (\$)*   | 1,169,673      | 300,307        | 278,373        |
| <b>ECONOMIC PERFORMANCE (\$'000)</b>  |                |                |                |
| <b>Revenue by segment</b>   |                |                |                |
| Sale of development properties  | 347,498        | 411,727        | 571,682        |
| Construction revenue  | 305,759        | 298,213        | 239,308        |
| Others  | 23,195         | 38,055         | 48,733         |
| <b>Total Revenue</b>  | <b>676,452</b> | <b>747,995</b> | <b>859,723</b> |
| Profit for the year   | 57,246         | 51,724         | 55,774         |
| Employee wages and benefits (including directors)                                     | 60,454         | 56,114         | 62,688         |
| Income taxes paid   | 27,180         | 34,244         | 22,240         |
| Dividends to shareholders   | 37,384         | 24,841         | 24,841         |

Notes:

\*Community donation amount is higher in 2015 due to a one-off donation of \$1 million to ITE Education Fund.

\*\*Calculation formula:

AFR = (No. of Injuries / Total Man Hours) x 1,000,000

WIR = (No. of Injuries / Total Manpower) x 100,000

ASR = (Lost of Man Day / Total Man Hours) x 1,000,000

# Our Stakeholders

We nurture relations with our stakeholders based on trust, ethics and integrity.

We define our stakeholders as individuals or groups who may be impacted by our business activities or who may have the potential to affect our operations. Our approach is to engage our stakeholders to proactively understand their concerns and expectations of us. More importantly, as a responsible business, our goal is to create sustainable value for our stakeholders.

Over the years, we have built trusted relationships with our stakeholders. We reach out and listen carefully to our stakeholders in a variety of ways to learn about and understand their views and opinions.

The frequency of engagement with different stakeholders varies depending on mutual needs and expectations.



Sembawang NIC10

A summary of our primary stakeholder groups, their expectations and concerns, and how we engage them is presented below.

| STAKEHOLDERS                       | EXPECTATIONS  | HOW WE ENGAGE  |
|------------------------------------|---|--|
| Customers                          | <ul style="list-style-type: none"> <li>• Good workmanship</li> <li>• Good quality and design</li> <li>• Prompt repairs</li> <li>• Clear communication</li> <li>• Timely completion of projects</li> <li>• Legal and contractual compliance</li> </ul>               | <ul style="list-style-type: none"> <li>• Regular project updates</li> <li>• Tenancy agreements</li> <li>• Customer service</li> <li>• Website</li> <li>• Submission of performance survey reports</li> </ul>   |
| Employees                          | <ul style="list-style-type: none"> <li>• Workplace safety</li> <li>• Training and development</li> <li>• Career advancement</li> <li>• Fair remuneration and rewards</li> <li>• Employee welfare</li> <li>• Work-life balance</li> </ul>                            | <ul style="list-style-type: none"> <li>• Regular meetings</li> <li>• Internal communication</li> <li>• Training</li> <li>• Performance reviews</li> </ul>  |
| Government agencies and regulators | <ul style="list-style-type: none"> <li>• Compliance with environmental and safety standards</li> <li>• Green buildings</li> <li>• Productivity</li> </ul>   | <ul style="list-style-type: none"> <li>• Compliance updates</li> <li>• Timely data reporting</li> <li>• Attending seminars to understand government policies and regulations</li> </ul>  |
| Investors and shareholders         | <ul style="list-style-type: none"> <li>• Return on investment</li> <li>• Good governance</li> <li>• Sustainable business growth</li> </ul>  | <ul style="list-style-type: none"> <li>• Regular updates through announcements on SGX-Net and Group website</li> <li>• Annual General Meetings</li> <li>• Annual Reports</li> </ul>  |
| Suppliers and sub-contractors      | <ul style="list-style-type: none"> <li>• Clear specifications and instructions</li> <li>• Timely payment according to contractual terms</li> <li>• Technical guidance</li> <li>• Site inspections</li> <li>• Timely provision of materials and equipment</li> </ul> | <ul style="list-style-type: none"> <li>• Tenders/ Request for Proposal Agreements</li> <li>• Interview for tender qualification, clarification and negotiation</li> <li>• Product presentations and seminars</li> <li>• Site Inspections</li> </ul>                              |
| Community                          | <ul style="list-style-type: none"> <li>• Minimal disruptions due to Group's project work</li> <li>• Minimal dust and noise generated due to construction</li> </ul>   | <ul style="list-style-type: none"> <li>• Advance notification of work schedule</li> <li>• Feedback system in place</li> <li>• Regular updates through posting of notices and bulletins</li> <li>• Visit surrounding neighbourhood by project team to solicit feedback</li> </ul> |

### MEMBERSHIP OF ASSOCIATIONS

We engage with relevant industry associations and forums to keep abreast of sector trends and emerging issues. Some of the associations to which our Group contributes as a member are listed below:

- Singapore Chinese Business Association
- Singapore Business Federation
- Singapore China Friendship Association
- Singapore National Employers Federation
- Singapore Institute of Directors
- The Singapore Contractors Association
- Singapore Institute of Surveyors and Valuers
- Singapore Chinese Chamber of Commerce & Industry
- Real Estate Developers' Association of Singapore

# Sustainability Approach

CES is engaged in construction, property development, hospitality and property investment business. The Group's property development segment accounted for 66% of our total revenue in 2017.

## **WE ARE COMMITTED TO SUSTAINABLE BUSINESS GROWTH**

Our approach is to focus on the most significant environmental, social and economic impacts, risks and opportunities arising from our business operations and on the issues that are most important to our stakeholders.

The construction and property development sector has significant positive and negative impacts on the economy, environment and communities. The United Nations Environment Programme's Sustainable Buildings and Climate Initiative estimates that buildings account for 40% of global energy use, 25% of global water consumption, 40% of global resources consumption and nearly one-third of global GHG emissions. At the same time, the sector plays a

crucial role in the social and economic development by creating jobs, catalysing commercial activities, providing housing, and building industrial and business infrastructure for growth.

CES is engaged in construction, property development, hospitality and property investment business. The Group's property development segment accounted for 66% of our total revenue in 2017.

Constructing the Housing Development Board's (HDB) affordable public housing in Singapore constitutes the bulk of our construction business. Our approach is to adhere to the standards set by HDB as well as the Building and Construction Authority (BCA) which include environmental, safety and community parameters.



Bukit Batok NIC13 & N2C23



## Sustainability Approach

We work closely with BCA to adopt and implement green design and construction technologies so as to minimise emissions and promote sustainable living environments. We also work closely with the HDB to develop sustainable HDB homes.

Overall, our approach is to integrate sustainability at all stages of our projects.

### **SUPPORTING SUSTAINABLE DEVELOPMENT GOALS**

We have examined the 17 UN SDGs and believe our business has the potential to support many of these goals. As a start, we have aligned our material ESG factors with the relevant SDGs. Our next step would be to explore ways to integrate the SDGs into our business operations to support sustainable business growth.

### **MITIGATING CLIMATE CHANGE**

We are committed to being part of national and international efforts to mitigate the risks of climate change. In line with the Paris Agreement on climate change, we are supportive of Singapore's commitment to reduce the nation's emissions intensity by 36% from 2005 levels by 2030 and stabilise the country's greenhouse gas emissions with the aim of peaking around 2030.

### **BOARD STATEMENT**

Chip Eng Seng has built its business through a dedication to quality, the environment, health and safety, ethics and integrity. The Group is committed to safeguarding the environment, people and communities while undertaking its business activities.

The Board considers sustainability issues as part of its strategy formulation. The Board endorses the material ESG factors presented in this report. The Board has also provided oversight of the management and monitoring of these material ESG factors, through regular review of performance indicators.

### **MATERIAL FACTORS**

We carried out a comprehensive materiality assessment to determine the most important issues to be covered in this report. Senior management representatives from all business units and functions attended a workshop conducted by an external sustainability expert to review and assess stakeholder concerns and the critical sustainability issues relating to our business activities. The participants identified the environmental, social and economic impacts, risks and opportunities in our value chain.

We considered national and international sustainability trends in the real estate sector, the GRI Standards, GRI's G4 Construction and Real Estate Sector Disclosures, the SGX Sustainability Reporting Guide, and stakeholder expectations when prioritising the material issues for reporting.

## Sustainability Approach

A summary of our material impacts and where they occur is provided below.

### MATERIAL TOPICS

| Material Topics<br>(GRI Standards)  | The Organisation's<br>Involvement | Business Division<br>Where Material   | Corresponding<br>SDGs  |
|-------------------------------------|-----------------------------------|---|--|
| <b>ENVIRONMENT</b>                  |                                   |   |  |
| <b>Energy</b>                       | Direct<br>and Indirect            | <ul style="list-style-type: none"> <li>• Construction</li> <li>• HQ-CES Centre</li> </ul> | 13 Climate Action<br>                                 |
| <b>GHG Emissions</b>                | Direct<br>and Indirect            | <ul style="list-style-type: none"> <li>• Construction</li> <li>• HQ-CES Centre</li> </ul> | 13 Climate Action<br>                               |
| <b>Waste</b>                        | Direct<br>and Indirect            | <ul style="list-style-type: none"> <li>• Construction</li> <li>• HQ-CES Centre</li> </ul> | 11 Sustainable Cities<br>and Communities<br>        |
| <b>Water</b>                        | Direct<br>and Indirect            | <ul style="list-style-type: none"> <li>• Construction</li> <li>• HQ-CES Centre</li> </ul> | 6 Clean Water<br>and Sanitation<br>                 |
| <b>Materials</b>                    | Direct<br>and Indirect            | <ul style="list-style-type: none"> <li>• Construction</li> </ul>                          | 12 Responsible<br>Consumption and<br>Production<br> |
| <b>Environmental<br/>Compliance</b> | Direct<br>and Indirect            | <ul style="list-style-type: none"> <li>• Construction</li> </ul>                          | 16 Peace, Justice and<br>Strong Institutions<br>    |






## Sustainability Approach

### MATERIAL TOPICS

| Material Topics<br>(GRI Standards)       | The Organisation's<br>Involvement | Business Division<br>Where Material   | Corresponding<br>SDGs  |
|--|-----------------------------------|---|--|
| <b>EMPLOYEES</b>                         |                                   |   |  |
| <b>Occupational Health and Safety</b>    | Direct and Indirect               | <ul style="list-style-type: none"> <li>• Construction</li> <li>• Chip Eng Seng Group</li> </ul> | 3 Good Health and Well-Being<br>        |
| <b>Employment</b>                        | Direct and Indirect               | <ul style="list-style-type: none"> <li>• Chip Eng Seng Group</li> </ul>                         | 8 Decent Work and Economic Growth<br> |
| <b>Employee Training and Development</b> | Direct                            | <ul style="list-style-type: none"> <li>• Chip Eng Seng Group</li> </ul>                         | 4 Quality Education<br>               |
| <b>Diversity and Equal Opportunity</b>   | Direct                            | <ul style="list-style-type: none"> <li>• Chip Eng Seng Group</li> </ul>                         | 5 Gender Equality<br>                 |
| <b>Human Rights</b>                      | Direct and Indirect               | <ul style="list-style-type: none"> <li>• Chip Eng Seng Group</li> </ul>                         | 8 Decent Work and Economic Growth<br> |

# Sustainability Approach

## MATERIAL TOPICS

| Material Topics<br>(GRI Standards) | The Organisation's<br>Involvement | Business Division<br>Where Material | Corresponding<br>SDGs   |
|------------------------------------|-----------------------------------|-------------------------------------|---|
| <b>CUSTOMERS</b>                   |                                   |                                     |   |
| <b>Customer Privacy</b>            | Direct                            | • Property Development              | 16 Peace, Justice and Strong Institutions<br>  |
| <b>ECONOMIC</b>                    |                                   |                                     |   |
| <b>Economic Performance</b>        | Direct and Indirect               | • Chip Eng Seng Group               | 9 Industry Innovation and Infrastructure<br><br>11 Sustainable Cities and Communities<br> |
| <b>Anti-corruption</b>             | Direct                            | • Chip Eng Seng Group               | 16 Peace, Justice and Strong Institutions<br>  |
| <b>Socio-economic Compliance</b>   | Direct and Indirect               | • Chip Eng Seng Group               | 16 Peace, Justice and Strong Institutions<br>  |







## Sustainability Approach

### ESG GOALS AND TARGETS

Our approach is to minimise the ESG risks in our operations and maximise value creation for our stakeholders, in order to sustain long-term business growth and profitability.

After identifying our material ESG factors, we started carefully measuring and monitoring our impacts and established broad goals for critical issues. The next step for us is to develop performance targets to achieve our sustainability objectives.

A snap-shot of our ESG goals and targets is presented below.

| SUSTAINABILITY TOPIC  | GOALS AND TARGETS  |
|---|--|
| Regulatory Compliance<br>    | <ul style="list-style-type: none"> <li>• Ensure regulatory compliance across our businesses</li> </ul>   |
| Environment<br>            | <ul style="list-style-type: none"> <li>• Minimise the environmental impact of our business activities by adopting green building practices</li> <li>• Reduce energy consumption at our construction sites and at properties that we directly control or manage</li> <li>• Minimise waste at our construction sites, reusing and recycling materials whenever possible</li> <li>• Adopt practices to save and conserve water</li> <li>• Take measures to reduce noise and dust during construction</li> </ul> |
| Health and Safety<br>      | <ul style="list-style-type: none"> <li>• Implement measures to identify, manage and mitigate workplace health and safety risks</li> <li>• Ensure safe work practices at our construction sites</li> <li>• Provide a safe and healthy work environment for our employees</li> <li>• Protect the health and safety of our tenants, customers and visitors</li> </ul>   |
| Employees<br>              | <ul style="list-style-type: none"> <li>• Promote fair and inclusive employment practices</li> <li>• Invest in cultivating the right skills through employee training and development</li> </ul>  |
| Product Responsibility<br> | <ul style="list-style-type: none"> <li>• Ensure residential and commercial spaces built by us offer high quality materials and workmanship as well as safe living</li> <li>• Maintain high standards of customer service</li> </ul>  |
| Economic Performance<br>   | <ul style="list-style-type: none"> <li>• Ensure sustainable growth and profitability for investors</li> <li>• Create value for all stakeholders</li> </ul>   |

## Sustainability Approach

### SUSTAINABILITY MANAGEMENT

Chip Eng Seng Group's Board of Directors provides strategic direction for determining and implementing sustainability policies. A Sustainability Management Committee (SMC), chaired by the chief executive officer with the chief financial officer as the deputy chairman, oversees sustainability management across the Group. Senior representatives from the construction and property development divisions and the human resources department actively contribute to the sustainability programme.

The SMC provides a regular update to the Board on the implementation of sustainability strategies. The SMC is assisted by a project team with executives drawn from across diverse business functions. The project team is responsible for collecting sustainability performance data for monitoring and reporting. A senior executive acts as project coordinator and works closely with the project team to ensure the necessary ESG performance data is gathered for sustainability reporting.



### BOARD OF DIRECTORS



### SUSTAINABILITY MANAGEMENT COMMITTEE

Chairman: Chief Executive Officer,  
Deputy Chairman: Chief Financial Officer



### SUSTAINABILITY REPORTING PROJECT TEAM

## Sustainability Approach

### WINNING ACCOLADES



#### 2017

|              |   |
|--------------|---|
| Excellent    | BCA Green and Gracious Builder Award awarded to CES Engineering & Construction Pte Ltd        |
| Excellent    | BCA Green and Gracious Builder Award awarded to Chip Eng Seng Contractors (1988) Pte Ltd      |
| Commendation | WSH Culturesafe (Certificate of Commendation) for Bukit Batok N1C13 Skyline 1                 |
| Commendation | WSH Culturesafe (Certificate of Commendation) for Sembawang N1C10 East Crown@Canberra         |
| Gold Plus    | BCA BIM Award (Builder) for CES Engineering & Construction Pte Ltd - Grandeur Park Residences |
| Winner       | HDB Construction Safety Award (Building Category) for Bukit Batok N1C13 & N2C23               |
| Winner       | HDB Construction Safety Award (Building Category) for Jurong West N6C31                       |
| Winner       | WSH SHARP Award for Sembawang N1C10 (East Crown @ Canberra)                                   |
| Winner       | WSH SHARP Award for Bukit Batok N1C13 (Skyline I)   |

## Sustainability Approach

| 2016         |  |
|--------------|--|
| Commendation | WSH Culturesafe (Certificate of Commendation) for Yishun Mixed Development (Junction Nine & Nine Residences) |
| Merit        | SCAL Innovation & Productivity Award to Chip Eng Seng Contractors (1988) Pte Ltd (Woodlands NIC26&27)        |
| Winner       | WSH Award Performance-SHARP Winner for Yishun Mixed Development (Junction Nine & Nine Residences)            |
| Winner       | WSH Award Performance-SHARP Winner for Fulcrum @Fort Road  |
| Gold         | BCA Construction Productivity Awards - Yishun Acacia Breeze  |
| Merit        | HDB Construction Award (Certificate of Merit) for Bukit Panjang N4C15 (Fajar Hills)                          |
| Winner       | HDB Construction Safety Award for Bukit Panjang N4C15  |

| 2015         |   |
|--------------|---|
| Commendation | WSH SHARP Award (Certificate of Commendation) for Jurong West N6C31                               |
| Commendation | WSH SHARP Award (Certificate of Commendation) for Yishun N5C2 (Acacia Breeze)                     |
| Commendation | WSH SHARP Award (Certificate of Commendation) for Bukit Batok N2C23 (Skyline II)                  |
| Commendation | WSH SHARP Award (Certificate of Commendation) for Tampines N4C27                                  |
| Winner       | WSH Award Performance-SHARP Winner for Yishun Mixed Development (Junction Nine & Nine Residences) |
| Merit        | HDB Construction Safety Award (Certificate of Merit) for Tampines N4C27                           |
| Merit        | HDB Construction Safety Award (Certificate of Merit) for Yishun N5C2                              |
| Merit        | HDB Construction Award (Certificate of Merit) for Yishun N5C2 (Acacia Breeze)                     |

Please visit our website [www.chipengseng.com.sg/awards](http://www.chipengseng.com.sg/awards) to see the full listing of our awards and commendations since 1994.



# Environment

We are committed to mitigating our environmental impact by adopting sustainable building designs, materials and technologies.

## GREEN AND GRACIOUS

Green building and sustainable living are important to our customers, tenants, employees, communities and the regulators. Our Green and Gracious policy promotes activities and initiatives to prevent and minimise adverse environmental impacts associated with our building construction work.

Environmental standards and management is a critical part of our Environment, Health and Safety (QEHS) system and we are committed to ensuring effective environmental management. We have obtained ISO 14000 for our environmental management system that reflects our dedication to continuous improvement. We depute Environmental Control Officers to ensure compliance with environmental and public health regulations applicable to the site work.

Our policy is to assess and manage the environmental impacts, risks and opportunities of our business activities to support sustainable building and construction practices. We embed energy efficiency and resource conservation at all stages of our value chain by incorporating sustainable features. Our policies and practices are directed at mitigating our environmental impacts.

We focus on energy use, GHG emission reduction, materials selection, waste management, water conservation, wastewater recycling, and noise and dust containment to minimise our impact on the environment.



Bukit Batok N4C15

## Environment

We measure and monitor our material environmental factors to ensure continuous improvement. We have implemented a process for collecting data for energy, water and waste on a weekly basis. We have also developed goals and targets for these environmental metrics and monitor them regularly.

We seek regular feedback on environmental issues from our employees, building authorities, and relevant stakeholders, in addition to conducting a regular and routine review of our policies, projects and initiatives.

### CLIMATE CHANGE

Globally, buildings account for significant energy use and GHG emissions. Buildings are also at risk from extreme weather conditions caused by climate change. At Chip Eng Seng, we support the global goal of limiting the temperature rise well below 2° Celsius. Green design, energy efficiency and resource conservation are an integral part of our management approach. Managing our carbon emissions is an essential element of our environmental programme.

### ENVIRONMENTAL PERFORMANCE

Our environmental performance data is presented in the sections that follow. The amount of energy and water used, as well as the amount of waste and wastewater generated, depends on the construction phase of a project. Usually, power and water consumption are higher during the middle stages of a project.

### ENERGY

Construction activity consumes a significant amount of energy, including grid electricity and diesel for running power generators. Our energy initiatives focus on minimising consumption of electricity and diesel at construction sites. Lower energy consumption is not only helpful in reducing our carbon footprint, but it also saves costs.

Our total electricity consumption at construction sites was 1,155,279 kWh in 2017 as against 751,481 kWh in the prior year. Diesel consumption was 1,353,843 litres in 2017 compared with 1,325,100 litres in the preceding year. In 2017, energy intensity was 0.271 GJ/m<sup>2</sup> of Gross Floor Area built against 0.259 GJ/m<sup>2</sup> in the previous year.

We monitor electricity consumption in our head office building, including the common area but excluding the tenants' use. We also measure and report the associated carbon emissions.



### ENERGY EFFICIENCY

We have implemented several measures at construction sites to minimise energy consumption. Initiatives include the use of energy-efficient equipment where possible. Examples include:

- Energy-efficient LED Lights.
- Installing 2-tick energy-saving air-conditioning units at site office.
- Power-efficient printers.
- Promoting energy-saving campaigns by placing posters and signs to remind staff to switch off any electrical equipment when not in use and to maintain air-con temperatures at 25°C.
- Use of window blinds to minimise the heat from outside.

## Environment

### GHG EMISSIONS


We measure and monitor GHG emissions from our energy use and regularly review our performance. Our total carbon dioxide (CO<sub>2</sub>) emission in 2017 was 4,084 tonnes compared with 3,837 tonnes in 2016. Emissions intensity for the same period was 19.0 kgCO<sub>2</sub>/m<sup>2</sup> and 18.4 kgCO<sub>2</sub>/m<sup>2</sup> respectively.

### BUILDING MATERIALS

We closely monitor our use of materials to minimise waste and select materials which have a lower impact on the environment. We use pre-cast concrete walls which are more efficient and reduce pollution at the construction site.

In construction, we use a wide variety of sustainable materials with the Singapore Green Label that meets the Green Mark criteria.

Our materials use in the stated period is summarised below:

| Material   | 2017   | 2016   | 2015   |
|--|--------|--------|--------|
| <br>Sand (tonnes)   | 89,173 | 95,182 | 58,872 |
| <br>Cement (tonnes) | 47,751 | 52,631 | 35,424 |
| <br>Steel (tonnes)  | 21,444 | 24,412 | 14,399 |

### WASTE

Our waste is mainly generated from construction activities on-site and are non-hazardous. Our approach is to reduce, reuse and recycle waste where practical. We dispose of waste through licensed contractors in accordance with the applicable regulations. Waste generated at our construction sites in 2017 was 5,830 tonnes as against 4,448 tonnes in the preceding year.

### WATER

Water is a precious resource in Singapore, and we make efforts to conserve it. Our policy is to use water responsibly and implement conservation initiatives. Our measures include collecting rainwater to reduce the demand for fresh water, as well as reusing and recycling water. We install a silty water treatment system at sites to prevent water contamination. We use pre-cast concrete which has significantly reduced the need for the on-site use of water. We use water-efficient taps and fittings that have a 3-tick rating by the Public Utilities Board to conserve water. We install dual flush closets to save water.

We track our water use, including the usage in our head office and CES Centre, and review our consumption regularly. In 2017, our water consumption at construction sites was 173,964 m<sup>3</sup> as against 141,541 m<sup>3</sup> in 2016. Water intensity for the same period was 0.83 m<sup>3</sup>/m<sup>2</sup> and 0.68 m<sup>3</sup>/m<sup>2</sup> respectively.

## Environment

### WASTEWATER

All wastewater generated at our construction sites is collected, treated and disposed of according to environmental regulations. We implement measures to prevent and control contamination from oil, chemical drums and bulk storage tanks.

We implement the required earth control measures to manage silty discharge due to rainwater.

We also monitor our wastewater to find ways to minimise it.

We use wastewater as well as rainwater to wash vehicles before they leave the construction site so as to keep the roads clean.

### POLLUTION

Construction activity, vehicles, heavy equipment and machinery at the construction sites generates noise, dust and vibrations which can be a source of nuisance for workers as well as the neighbouring community. Our policy is to minimise the noise, dust and vibrations pollution by strictly implementing regulatory guidelines and industrial best practices, and constantly monitoring our construction work to keep the noise under permissive levels. We ensure regular maintenance of the equipment and machinery to reduce noise. Our use of pre-cast concrete panels also helps in minimising noise at the construction site.

We closely supervise piling and demolition work to ensure that vibrations caused from such activities do not exceed permitted limits.

Construction sites generate dust from concrete, cement, wood, stone, and silica. We take preventive measures to control the spread of dust. We use screens to stop dust from spreading and place fine mesh screening close to the dust source. We also use water sprays to control dust pollution.

More importantly, we engage with the affected community to keep them informed of our impending construction schedules. We promptly address and resolve any pollution related complaints.

### ENVIRONMENTAL COMPLIANCE

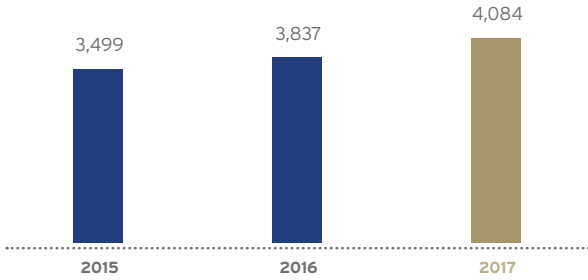
Complying with applicable environmental regulations is a top priority for the Group as non-compliance may result in penalties and loss of reputation. We carefully examine applicable rules, including environmental and public health laws, to put in place the necessary policies and practices to ensure compliance.

In 2017, there were no incidents of stop work orders or demerit points relating to or arising from environmental regulations. Regrettably, there were four incidents of composition fines for vectors-related lapses. We have since taken corrective measures to prevent the recurrence of the problem.

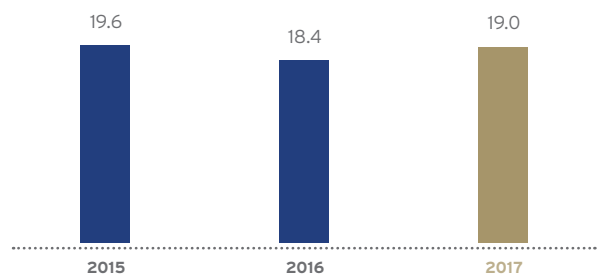
# Environment

## ENVIRONMENTAL PERFORMANCE

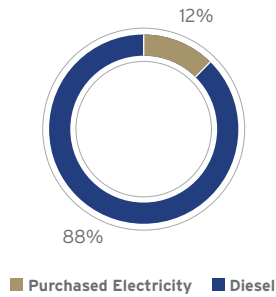
Carbon Emissions - Construction Sites (tCO<sub>2</sub>)



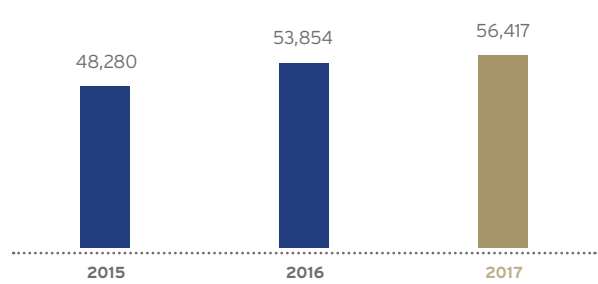
Carbon Emissions Intensity - Construction Sites (kgCO<sub>2</sub>/m<sup>2</sup>)



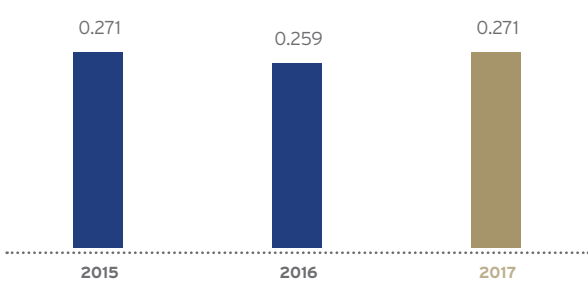
Source of CO<sub>2</sub> Emissions - 2017



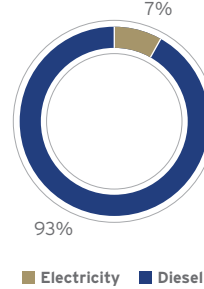
Total Energy Consumption at Construction Sites (GJ)



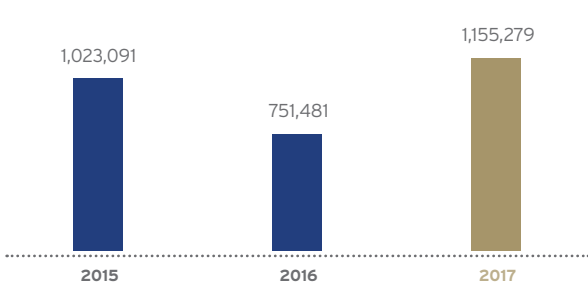
Energy Intensity - Construction Sites (GJ/m<sup>2</sup>)



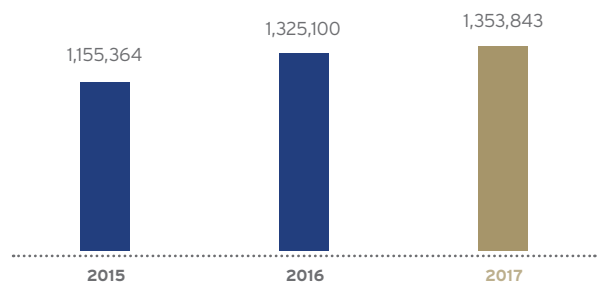
Energy Consumption by Source - 2017 (GJ)



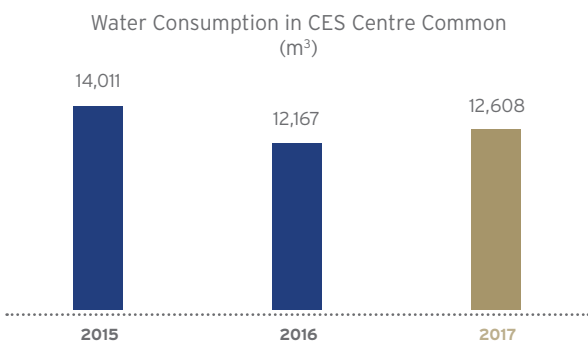
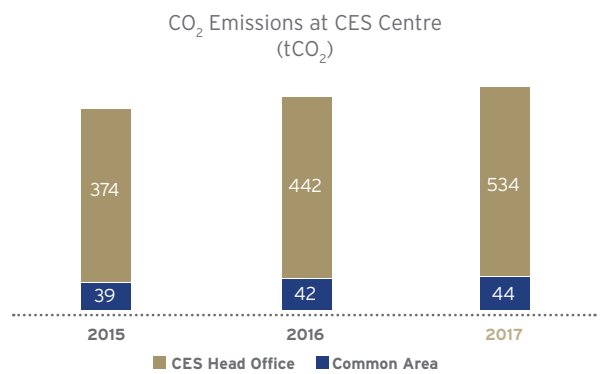
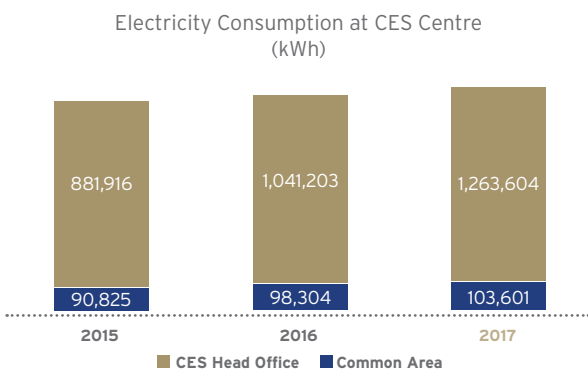
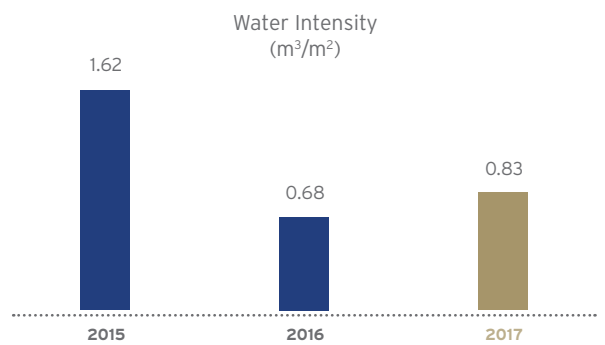
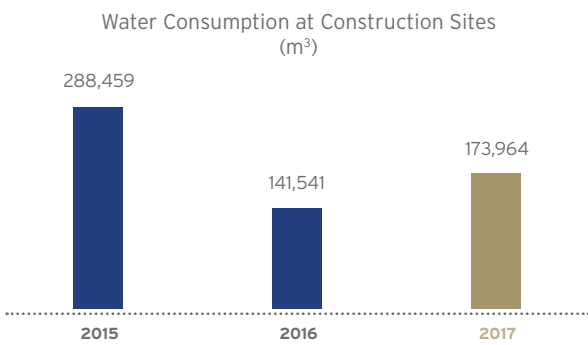
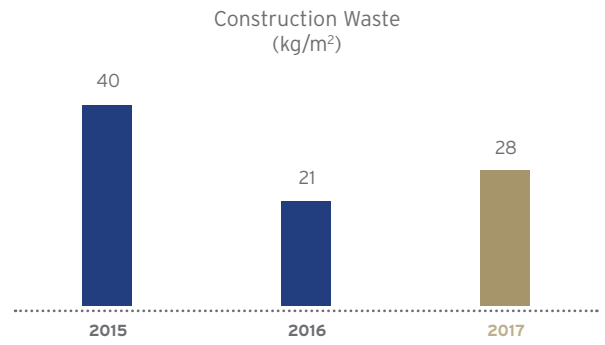
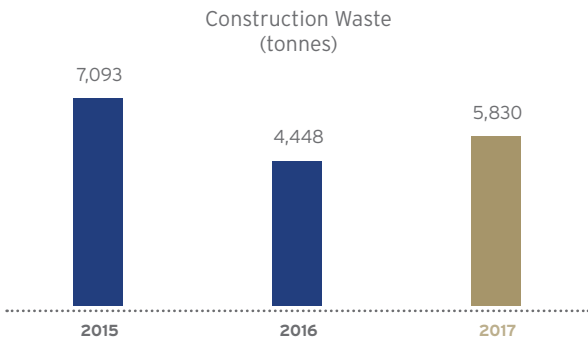
Electricity Consumption at Construction Sites (kWh)



Diesel Consumption at Construction Sites (litres)



# Environment



# People

We are committed to building a workplace where our people can realise their full professional and personal potential. We consider employees as our most important resource. Our human resource policies promote fair employment and overall well-being of our people. Ensuring safety at the workplace is our foremost priority.

## EMPLOYMENT

We employed 361 full-time employees for construction and property development, all of whom were on permanent job contracts, as at the end of 2017. There were only two part-time employees. We hired 53 new employees during the year.

In addition, we employed 399 foreign construction workers. The Ministry of Manpower (MOM) regulates the hiring of foreign construction workers in Singapore.

We have a relatively younger workforce. The average age of our employees is 36.8 years.

## DIVERSITY

We are proud of our diverse workforce comprising different backgrounds. The CES Group is an equal opportunity employer. Maintaining workplace diversity in terms of gender, age, experience and culture is important to us. As such, our workplace policies encourage hiring, rewarding and promoting based on merit.

As at the end of 2017, women represented 32% of our full-time employees. Women held 31% of supervisory and managerial positions. The proportion of women in the new hires was 42%.



Jurong West N6C31

## People

We have an ethnically diverse workforce represented by members of different races. Our people also come from different age groups.

### **TRAINING**

We believe that ongoing training is crucial for retaining and developing talent. We provide regular training opportunities for our people to enhance their professional development.

In 2017, we organised training on more than 70 topics, including: workplace safety, health and environmental management, sustainability reporting, quality and productivity, lean construction, best practices for green and gracious builders, earth control measures, construction regulations, service excellence, virtual design and construction, contract management, and managerial skills development.

### **UPGRADING WORKFORCE SKILLS**

We have implemented a programme to help Basic-Skilled foreign construction workers upgrade to the Higher-Skilled R1 category in accordance with the criteria set out by the MOM. Investing in upgrading skills means higher productivity and a lower levy that we need to pay. Also, Higher-Skilled workers can be employed for an extended period of up to 22 years instead of just 10 years for Basic-Skilled workers.

In 2017, 131 workers were successfully upgraded to the Higher-Skilled category. These workers had received a combined 4,540 hours of training in a variety of trades.

Some of the training topics included: reinforced concrete works, electrical works, gas pipefitting works, plumbing and piping works, construction plant operation (non-lifting), supervisor (structural) and supervisor (architectural).

### **PROMOTING WORKPLACE SAFETY**

Workplace safety is crucial to our success in the construction business. In Singapore, the construction sector continues to be the top contributor of accidents, accounting for 36% of all workplace fatalities, according to the WSH National Statistics Report 2017. We are committed to providing a safe and healthy workplace for our workers and contractors. Safety and health are at the core of our QESH system and our target is to have zero workplace accidents. We are focused on building a culture of safety across the Group.

For each project, we conduct a thorough risk assessment to identify and mitigate safety hazards. We ensure compliance with safety regulations and align our work processes with industry standards for safe construction.

Our employees receive frequent safety briefings and trainings to understand safety risks inherent in various construction activities and to learn safe work practices.









## People

### DRIVING SAFETY THROUGH INNOVATION

We continuously explore new methods to lower the risk of injury in structural installations. For instance, our subsidiary Chip Eng Seng Contractors (1988) Pte Ltd developed the Z-Bracket, which is a lightweight steel hollow section with a pipe socket at one end. This enables the leg of a scaffolding frame to be seamlessly slotted into it. The principal advantage of this simple

yet useful product is that it allows the scaffolding structure to be directly clamped onto the parapet wall, providing added stability and eliminating the need to set up extensive scaffolding at a building's exterior.

We track and regularly review the safety performance at our construction sites against critical indicators. A summary of our safety record is presented below.

|  YEAR |  ACCIDENT FREQUENCY RATE (AFR) |  WORKPLACE INJURY RATE (WIR) |  ACCIDENT SEVERITY RATE (ASR) |  NUMBER OF FATALITIES |  OCCUPATIONAL DISEASE INCIDENCE RATE |
|--|---|---|--|--|---|
| 2015   | 1.3   | 300.5   | 60.1   | 0  | 0   |
| 2016   | 0.2   | 57.9  | 19.0   | 0  | 0   |
| 2017   | 0.3   | 103.0   | 14.6   | 0  | 0   |

Calculation formula:

AFR = (No. of Injuries / Total Man Hours) x 1,000,000

WIR = (No. of Injuries / Total Manpower) x 100,000

ASR = (Lost of Man Day / Total Man Hours) x 1,000,000

# People

## HUMAN RIGHTS

We respect the principles of human rights protected by national laws and enshrined in internationally accepted conventions of the UN and the International Labour Organisation, including:

- a) Non-discrimination: we prohibit discrimination in employment on any grounds, including gender, age, race, ethnicity, religion, marital status, pregnancy and disability;
- b) Child Labour: We prohibit child labour in our operations and expect our suppliers to ensure the same standards;
- c) Forced Labour: We prohibit forced labour in our operations and expect our suppliers to ensure the same standards;
- d) Freedom of Association and Right to Collective Bargaining: We respect our employees' right to freedom of association and collective bargaining in accordance with local laws. Currently, CES does not have a collective bargaining agreement with any union. Our employees, however, have the right and freedom to raise any matter of concern freely with their supervisors, the HR department or the senior management.

There was no incidence of non-compliance relating to non-discrimination, child labour, forced labour and freedom of association in the reported period.

## RETENTION

Hiring and retaining competent and talented employees is vital for us. We provide a professional working environment built on mutual respect and trust. We invest in developing our people through regular training and ensure a fair performance assessment and reward system.

## EMPLOYEE BENEFITS

We offer competitive compensation, bonuses and performance-based wage increments to attract and retain talent. Our employees are eligible for a range of benefits. The leave benefits include annual leave, enhanced child care leave, marriage leave, medical and hospitalisation leave, and compassionate leave. The insurance benefits include Group H&S Insurance, travel

insurance and Work Injury Compensation Insurance. Other staff benefits include the company annual dinner, management recreation, festival gatherings, bereavement donations and wreaths, newborn baby gifts and long service award.

## CARING FOR FOREIGN CONSTRUCTION WORKERS

We employed 399 foreign construction workers as at the end of 2017. We hire foreign construction workers from source countries approved by the MOM. MOM regulates the hiring of foreign construction workers in Singapore and requires all foreign construction workers to attend the Construction Safety Orientation Course or the Apply Workplace Safety and Health in Construction Sites training.

We provide housing facility to our foreign workers in approved dormitories fitted with modern amenities. The facilities and services at the dormitories include dedicated cooking areas, laundry and recreational facilities such as gym and outdoor games courts.

Our construction workers receive welfare benefits which include free Wifi at quarters on construction sites, televisions at the canteen and washing machines.

## WORKER WELFARE

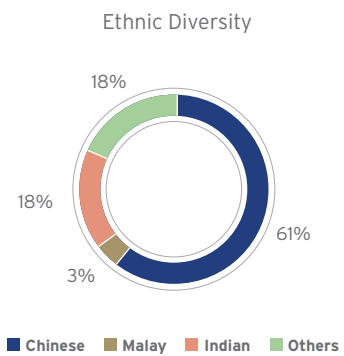
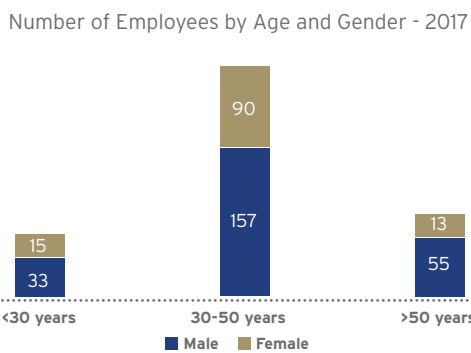
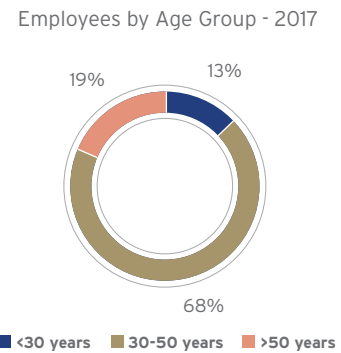
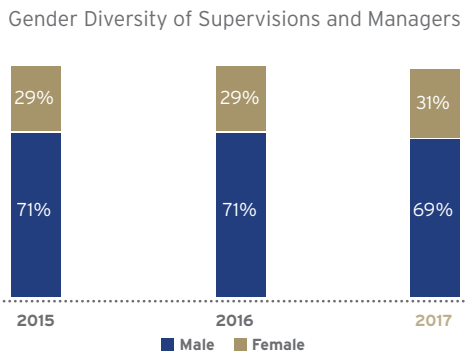
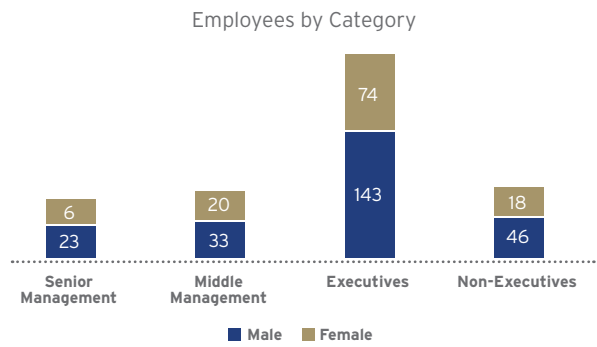
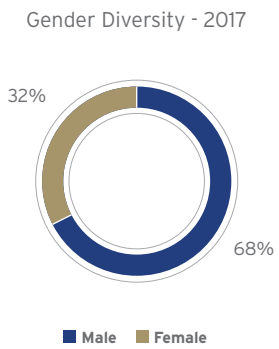
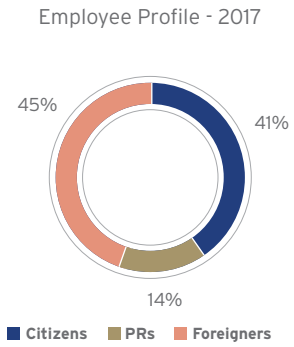
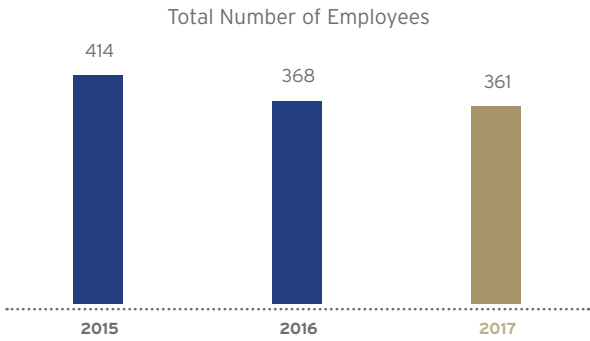
The welfare of our workers is an important aspect of our human resources management. We provide transport facilities to workers to travel between their dormitory and the construction site. The worker dormitories are equipped with entertainment facilities such as television, wireless internet and common areas for leisure activities. We have also provided bicycle parking areas for workers as many of them use bicycles to travel.

We organise a number of recreational activities for the workers which include sports competitions, birthday celebrations, fruit day and barbeque parties during festive periods.

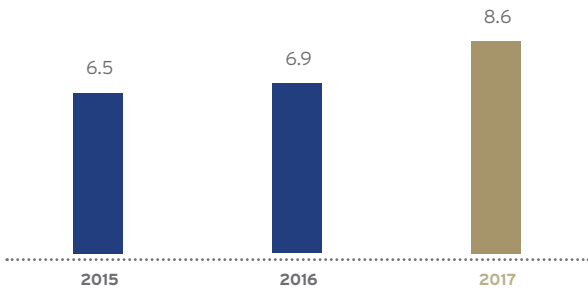
Workers who perform exceptionally well during the month also receive monetary rewards and a certificate of appreciation.

# People

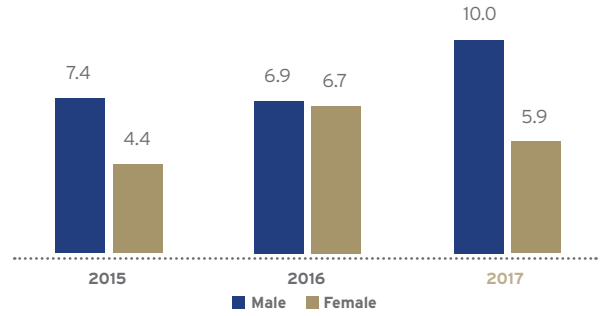
## OUR PEOPLE PERFORMANCE



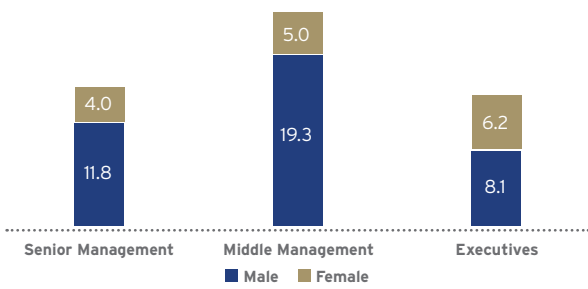
Average Training Hours per Employee



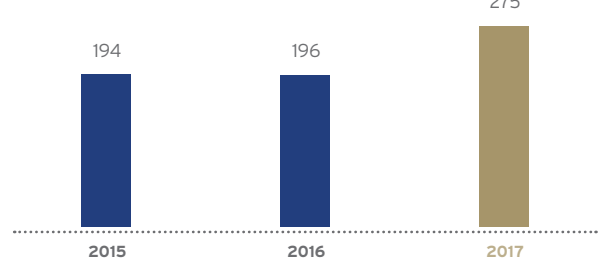
Average Training Hours per Gender



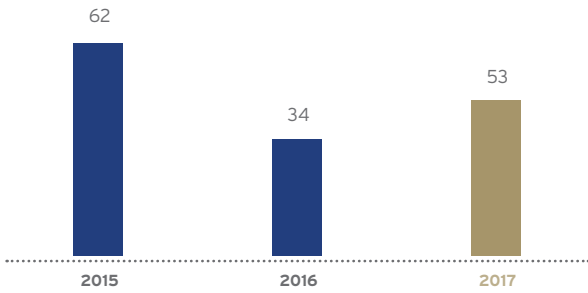
Average Training Hours by Employment Category



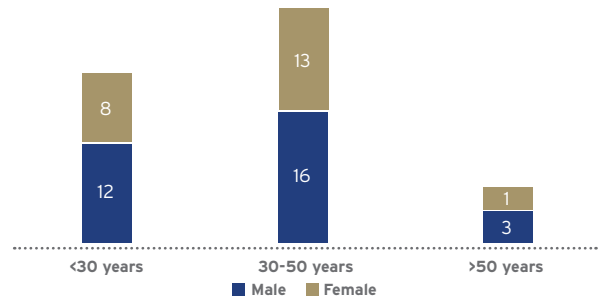
Average Training Expenditure per Employee (\$)



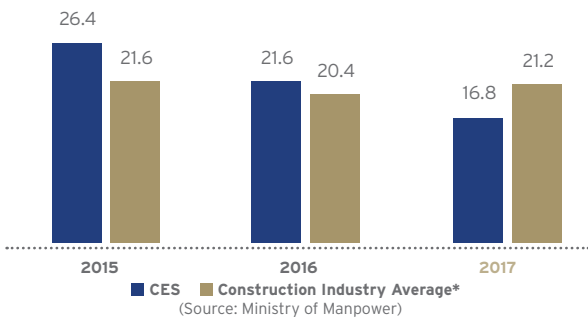
New Hiring



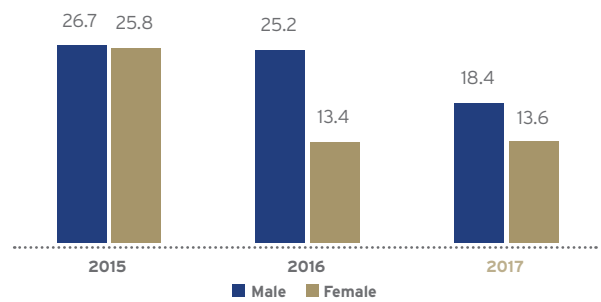
New Hiring by Age and Gender - 2017



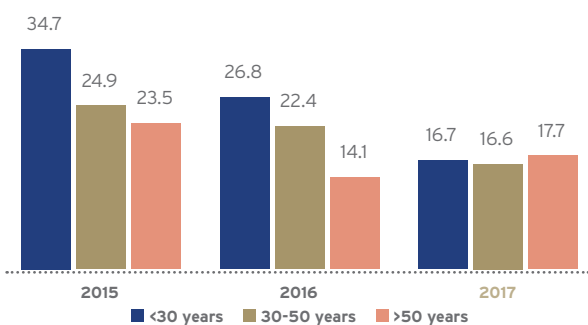
Employee Turnover Rate (%)



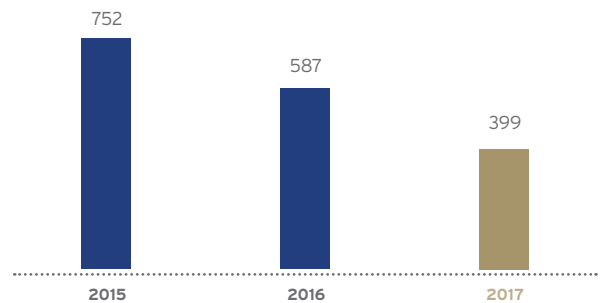
New Hiring by Age and Gender - 2017



Employee Turnover Rate by Age Group (%)



Foreign Construction Workers



# Customers

We are committed to building high standard houses for outstanding living quality.

As one of the leading property development and construction companies in Singapore, we are committed to quality building standards. We continuously upgrade and maintain our equipment to ensure that we use the most advanced and efficient construction technologies available.

Housing is a significant financial and emotional investment for homeowners. We have made it our top priority to develop and construct high-quality homes with stringent standards of workmanship. The high quality of construction ensures the future marketability of our projects.

We have completed all our projects ahead of schedule or well within the target timeline. We are equally

committed to the highest safety standards for our construction and development projects.

Over the years, we have established a good track record for ourselves, including the honour of building the biggest and tallest public housing project in Singapore: The Pinnacle@Duxton.

## **GREEN CONSTRUCTION**

We have adopted environmentally friendly construction standards and technologies to assure our customers of a green home. Our dedication to eco-friendly buildings is reflected in the multiple awards we have won over the years. In 2017, our group companies CES Engineering & Construction Pte Ltd and Chip Eng Seng Contractors (1988) Pte Ltd received the BCA Green and Gracious Builder Award - Excellent.



Woodlands N1C26 & C27

## Customers

### QUALITY AND SAFETY STANDARDS

We insist on exacting safety standards as well as excellent design and workmanship to ensure the safety and well-being of the occupants in the housing we build.

Our approach to safe design and construction focuses on structural stability, high quality materials and dedicated workmanship. We employ qualified and experienced teams of architects, engineers and technical staff to ensure that each project meets our stringent norms of quality and safety.

We build our projects in strict compliance with building regulations and standards. We participate in the Construction Quality Assessment System (CONQUAS), introduced by BCA to benchmark our workmanship on a national basis. The average CONQUAS scores of our two projects completed in 2017 was 90.8 as against the national average of 88.9. The average score of the two projects completed in 2016 was 92.4, higher than the national average of 88.7.

### SUB-CONTRACTORS

Our Quality, Environmental, Health and Safety (QEHS) policies also cover our sub-contractors to ensure safety and compliance at our construction sites. Preference is given to the suppliers and subcontractors who have obtained bizSAFE level 3 certification for workplace safety and health.

We ensure ongoing engagement with subcontractors through regular meetings, reviews, training and briefing sessions to help them achieve the required quality and EHS standards.

Subcontractors' EHS performance is reviewed every six months. We have also instituted annual awards to recognise subcontractors for their EHS performance.

### SHARING BEST PRACTICES

We welcome opportunities to share our QEHS best practices with peers. In 2016, we worked with the Workplace Safety and Health Council (WSHC) to host a visit to one of Chip Eng Seng's HDB project sites, to showcase and share with forum participants the safety controls we adopt for high-risk work activities. We also conducted a site visit for 60 participants from six HDB worksites in Tampines, to share and learn from each other's best practices in QEHS standards.

### COMPLIANCE

We are committed to running our business responsibly and in accordance with applicable laws and regulations. We regularly review and monitor our policies and practices with regard to regulatory requirements. We disseminate regulatory updates to the relevant staff to help them stay up to date with legal requirements.

We have put in place systems to ensure compliance with all the relevant laws and regulations, including but not limited to the requirements issued by MOM and BCA.

There were no significant fines in the stated period for non-compliance with laws in the social and economic area.

### CUSTOMER PRIVACY

The Group is committed to safeguarding personal data, including customers' personal information. We manage personal data in compliance with the Singapore Personal Data Protection Act.

# Community

We are committed to being a responsible corporate citizen.

We contribute to a number of social causes, including the arts, education and healthcare. We work closely with Singapore's construction community and non-profit organisations to provide support for various philanthropic projects through giving and fund-raising efforts. We also encourage our employees to volunteer in community initiatives.

In 2017, our donations for various community programmes amounted to \$278,373. We have donated \$1.75 million in the last three years to a broad range of social organisations.

The main beneficiaries of our giving programme in 2017 included Ren Ci Hospital, Singapore Thong Chai Medical Institution, Yellow Ribbon Fund, PAP Community Foundation, and Singapore Chinese Orchestra.

Our Group companies and employees also participated in several community programmes throughout the year.

Park Hotel Alexandra (PHAL) partnered with Rainbow Centre Singapore, a non-profit organisation for children with special needs, to organise a work experience programme for youths above the age of 17 years. Under the initiative, 18 children were invited to the hotel to learn tasks related to housekeeping, food and beverage, culinary, and bell services.

At the start of the year, employee volunteers from CES and PHAL visited Rainbow Centre, assisting in decorating the school for the Chinese New Year celebrations and distributing mandarin oranges to mark the festivities.

CES and PHAL employee volunteers also helped to raise awareness for autism by supporting the Autism in the Community,, a joint initiative by five voluntary welfare organisations that include Autism Resource Centre, Autism Association of Singapore, St Andrew's Autism Centre, Asian Women Welfare Association and Rainbow Centre. In support of the programme, Park Hotel's façade light and Aqua Luna bar's lighting was turned to blue, the colour representing autism. Non-uniformed staff also wore at least one blue accessory for the month of April to build awareness about autism.

Eight volunteers from PHAL assisted in Rainbow Centre's 30<sup>th</sup> Anniversary celebrations by packing goodie bags to be distributed to the event's guests.

Along with the students, their parents and teachers from Rainbow Centre, six PHAL volunteers took part in the Standard Chartered Ekiden Marathon, where each team of six runners brought their training and teamwork together to complete a 42.192km run. PHAL and the Centre's participants participated in weekly training sessions over a period of three months to prepare for the marathon.

# Economic Performance

We are committed to long-term value creation for our shareholders and stakeholders through the pursuit of sustainable business growth strategies.

Our detailed financial performance is covered in the Annual Report section of this report. In line with the GRI Standards, we have presented a brief account of our economic performance extracted from our financial statements.

## ETHICS AND INTEGRITY

We are committed to fostering a culture of ethics and integrity across the Group. We have strict policies in place to prevent conflict of interest, misconduct and unethical or immoral behaviour, including receiving or giving bribes in any form.

There were no confirmed incidents of corruption in the reported period.

## ECONOMIC PERFORMANCE (\$'000)

|   | 2015    | 2016    | 2017    |
|---|---------|---------|---------|
| <b>Revenue by segment</b>                         |         |         |         |
| Sale of development properties                    | 347,498 | 411,727 | 571,682 |
| Construction revenue                              | 305,759 | 298,213 | 239,308 |
| Others  | 23,195  | 38,055  | 48,733  |
| <b>Total Revenue</b>                              | 676,452 | 747,995 | 859,723 |
| Profit for the year                               | 57,246  | 51,724  | 55,774  |
| Employee wages and benefits (including directors) | 60,454  | 56,114  | 62,688  |
| Income taxes paid                                 | 27,180  | 34,244  | 22,240  |
| Dividends to shareholders                         | 37,384  | 24,841  | 24,841  |



# GRI Content Index

## GRI CONTENT INDEX

'In accordance' - Core

| GRI STANDARD  | DISCLOSURE  | PAGE NUMBER(S)  |
|---|---|---|
| <b>GRI 101: FOUNDATION 2016</b><br>(GRI 101 does not include any standards) |   |   |
| <b>GENERAL DISCLOSURES</b>  |   |   |
| <b>GRI 102: GENERAL DISCLOSURES 2016</b>                                    | <b>Organisational Profile</b>                                       |   |
|   | 102-1 Name of the organisation                                      | Cover page  |
|   | 102-2 Activities, brands, products, and services                    | Annual Report (AR) 2017: 14-15, 28                        |
|   | 102-3 Location of headquarters                                      | Singapore   |
|   | 102-4 Location of operations  | AR 2017: 14-15, 16-17, 28-31                              |
|   | 102-5 Ownership and legal form                                      | AR 2017: 36   |
|   | 102-6 Markets served  | AR 2017: 14-15, 16-17                                     |
|   | 102-7 Scale of the organisation                                     | AR 2017: 16-17, 18-19, Sustainability Report (SR): page 3 |
|   | 102-8 Information on employees and other workers                    | 3, 25-26  |
|   | 102-9 Supply chain  | 5, 28   |
|   | 102-10 Significant changes to the organisation and its supply chain | None  |
|   | 102-11 Precautionary Principle or approach                          | 6, 15   |
|   | 102-12 External initiatives   | 2, 7  |
|   | 102-13 Membership of associations                                   | 5   |
|   | <b>Strategy</b>   |   |
|   | 102-14 Statement from senior decision-maker                         | AR 2017: 10-13, SR: 7                                     |
| <b>Ethics and Integrity</b>   |   |   |
| 102-16 Values, principles, standards, and norms of behaviour                | 2   |   |
| <b>Governance</b>   |   |   |
| 102-18 Governance structure   | AR 2017: 36-54  |   |
| <b>Stakeholder Engagement</b>   |   |   |
| 102-40 List of stakeholder groups   | 5   |   |
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