



**中信环境技术**  
**CITIC ENVIROTECH**

SUSTAINABILITY REPORT 2017

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**MAKING  
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# BOARD STATEMENT

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The Board of Directors at CITIC Envirotech Limited (“CEL”) and its subsidiaries are pleased to present our inaugural Sustainability Report.

CEL believes in contributing to society and being guided by a social mission. We strive to operate our businesses in a socially responsible manner while creating economic value for our shareholders. CEL does not aim to simply treat waste water, but to go beyond and contribute to cleaning up the aquatic environment and contributing to solving environmental problems globally. Our sustainability approach is premised on the recognition that environmental, social and governance (“ESG”) risks and opportunities may have implications on our existing business model. As such, we are committed to responding through monitoring and managing our sustainability performance and delivering innovative solutions to address challenges in this sector.

The Board specifically considered sustainability issues as part of our business strategic formulation, and oversaw the management of sustainability related risks, opportunities, practices and the development of the sustainability report. To effectively discharge its responsibilities, the Board is supported by the Sustainability Steering Committee, which comprises key executives from CEL. This year for the first time, we oversaw a materiality assessment that was conducted to identify the material ESG factors for CEL. This report describes how we manage our impacts in these areas as well as our performance and targets for the forthcoming year.

**HAO WEIBAO**

*Executive Chairman & Group CEO*



## CEL's Sustainability Future



CEL is a leader in the environmental technology sector with a vision to becoming one of the top three environmental technology companies in China. We target to be the best in regards to technology and products, quality of construction, creativity, engaging the right talent and profitability. We are supported by our sponsor's mandate to push forward state-owned reform and make strategic investments in emerging industries related to economic growth. With this mandate, we plan to encourage innovation in the water treatment industry and to grow new markets with the aim of creating value for our stakeholders as well as society as a whole. Our societal value creation will come through improved environmental protection as well as socio-economic growth in the sector.

We believe that sustainability is a key driver for innovation and sector disruption and we are dedicated to applying our experience, knowledge and resources to addressing some of the world's most pressing environmental challenges. We plan to do this by focusing our sustainability approach in four areas: sustainable business, technology, employees and our community.

Currently building and operation of water treatment facilities and membrane manufacturing and sales are our main businesses. While remaining dedicated to research and development of water and membrane technologies, we are also expanding our business into solutions in newer areas. For example, the most common treatment of sludge at this time is dehydration and burial, which fails to deal with this water treatment by-product as a resource. We are developing more satisfactory solutions for the treatment and management of sludge as well as other hazardous wastes and we are excited about the opportunities provided by a circular economy mind-set. In addition, considering our decades of expertise in water treatment, we feel duty bound to transfer these expertise to tackling the rehabilitation of rivers and waterways.

Technology is a key tool in our toolbox for achieving sustainable business growth and success in tackling environmental challenges. We demonstrate our commitment by investing in emerging technological opportunities. One of these investments is the Singapore Envirotech Accelerator (SEA). SEA is a new subsidiary formed in collaboration with Singapore Economic Development Board (EDB) to accelerate innovation and commercialisation of environmental technologies in Singapore and globally. The



establishment of SEA will enable returns on investment made in R&D for the Singapore government, injects capital into cleantech small/medium enterprises (SMEs), increases employment opportunities in cleantech, creates revenue and wealth through successful grooming of SMEs and technopreneurs and ultimately enhance Singapore's attractiveness as a cleantech hub. Pilots and tests for these developments will be carried out in our facilities, where relevant.

Our progress as a technology business is highly dependent on the right people and talent, which is why we offer a safe and healthy workplace as well as rewarding job opportunities at CEL. Breaking barriers and innovating new ideas requires bright, ambitious minds and we are committed to cultivating this outlook in our organisation as well as attracting these people to our team. We invest in technical training, skills development and leadership training to develop our people on an individual level as well as to elevate the company as a whole.

Finally, our driving force is the betterment of our communities. Our hope is that our services in the water treatment sector contribute a better quality of life for both the communities local to our facilities as well as the water treatment community as a whole. We continue to dedicate our resources to establishing water treatment facilities where needed by local communities as well as assisting governments to achieve their aim of preventing and reducing water pollution.

We are excited to be building on the personal growth and experiences of our founding members as well as their passion for doing the right thing well. In this, our first sustainability report, we share our growth over the last year as well as how we intend to continue to create sustainable value for CEL, our stakeholders and our communities in the future.



# Our Report

## Reporting Scope

This report discloses our sustainability efforts and performance from 1 January to 31 December 2017.

Although we practice sustainability throughout our entire business, the performance data in this first sustainability report encompasses operations that are most material for CITIC Envirotech Limited (“CEL”). In defining the reporting scope, we considered our level of operational control as well as the significance of any resulting economic, environmental and social impacts. We decided to include our Engineering, Procurement and Construction (EPC), water treatment operations and membrane business division in our operational performance data. All our operations in China, Malaysia and Singapore are included in our HR related data.

All data is reported in good faith and to the best of our knowledge.

## Reporting Standard

This inaugural sustainability report has been prepared in compliance with the requirements of SGX-ST Listing Rules 711A and 711B, and with reference to the Global Reporting Initiative (“GRI”) Standards (2016).

## Feedback

We welcome all feedback to help us improve our sustainability practices. Please send your comments or feedback to [sre@citicenvirotech.com](mailto:sre@citicenvirotech.com).

## Stakeholder Engagement

At CEL, we believe stakeholders play a vital role in the formulation of our long-term business strategy. It is recognised that efficient collaboration with stakeholders can positively influence the organisation's success. Therefore, we proactively engage stakeholders, both internal and external, through regular and fair communication. CEL's approach towards stakeholder engagement is summarised below:

Key Stakeholders	Engagement Methods	Key Topics of Interest
<b>Investors</b>	<ul style="list-style-type: none"> <li>Timely updates of financial results and announcements, business developments, press releases, and other relevant disclosures via SGXNet and website</li> <li>Annual General Meeting</li> <li>Extraordinary General Meeting</li> </ul>	<ul style="list-style-type: none"> <li>Sustain profitability and enhance shareholder returns</li> <li>Transparent reporting</li> <li>Sound corporate governance practices</li> <li>Active portfolio management</li> </ul>
<b>Customers</b>	<ul style="list-style-type: none"> <li>Customer satisfaction surveys</li> </ul>	<ul style="list-style-type: none"> <li>Deliver affordable, quality products and services</li> <li>Responsiveness to customers' requests and feedback</li> </ul>
<b>Employees</b>	<ul style="list-style-type: none"> <li>Induction programme for new employees</li> <li>Training and development programmes</li> <li>Career development performance appraisals</li> <li>Recreational and wellness activities</li> <li>Regular e-mailers and meetings</li> </ul>	<ul style="list-style-type: none"> <li>Equitable remuneration</li> <li>Fair and competitive employment practices and policies</li> <li>Safe and healthy work environment</li> <li>Focus on employee development and well-being</li> </ul>
<b>Communities</b>	<ul style="list-style-type: none"> <li>Corporate giving and philanthropy activities</li> <li>Corporate volunteering</li> <li>Open feedback channels</li> </ul>	<ul style="list-style-type: none"> <li>Contributions to communities of operations</li> <li>Responsible and ethical business practices</li> </ul>
<b>General Public</b>	<ul style="list-style-type: none"> <li>WeChat news feed</li> <li>CITIC Envirotech Ltd's corporate website: <a href="http://www.unitedenvirotech.com/">http://www.unitedenvirotech.com/</a></li> </ul>	<ul style="list-style-type: none"> <li>Track updates of the organisation</li> <li>Access to information and specific articles</li> </ul>
<b>Government and Regulators</b>	<ul style="list-style-type: none"> <li>Meetings and dialogue sessions</li> <li>Membership in industry associations such as Singapore Water Association (SWA) and Singapore National Membrane Consortium (SG-MEM)</li> <li>Our subsidiary, Memstar is a funding sponsor for Singapore International Water Week (SIWW)</li> </ul>	<ul style="list-style-type: none"> <li>Compliance with, and keep abreast to, ever-changing laws and regulations</li> </ul>
<b>Suppliers</b>	<ul style="list-style-type: none"> <li>Regular dialogue sessions with key suppliers and service providers</li> <li>Establish channels of communication</li> </ul>	<ul style="list-style-type: none"> <li>Equitable treatment of suppliers</li> <li>Regular and punctual payments upon enlistment of service</li> </ul>



## Sustainability Governance

Sustainability practices have been in place for a number of years, however, over the last 12 months, we have formalised and standardised our sustainability approach and governance.

Supported by the Sustainability Steering Committee (“SSC”), the Board oversees the direction, approach, and performance of sustainability as well as the development of the sustainability report. The SSC comprises senior management within CEL, and the Sustainability Task Force (“STF”) is made up of representatives across the organisation’s business units and functions. STF members are responsible for the sustainability performance of their departments. The diagram below indicates the sustainability governance structure for CEL.



## Materiality Assessment

During FY2017, CEL conducted a 3-step materiality assessment exercise (as shown in the table below), which took reference from the GRI Standards (2016) Materiality Principle.




Activities conducted	
Step 1 Identify material ESG	<ul style="list-style-type: none"> <li>Background research</li> </ul>
Step 2 Prioritise material ESG	<ul style="list-style-type: none"> <li>Sustainability reporting workshop attended by members of the SSC, which includes C-suite representation from CITIC Envirotech</li> </ul>
Step 3 Validate material ESG	<ul style="list-style-type: none"> <li>Approval and validation by the Board</li> </ul>

The objective of the exercise was to identify, prioritise and validate ESG factors that are significant to our business operations and of interest to key stakeholders. Facilitated by an independent sustainability consultant, the materiality assessment was carried out via a physical workshop.

The participants engaged in the assessment workshop that required them to consider the following:

- Global and local emerging sustainability trends;
- Material topics and future challenges, as identified by peers;
- Options of sustainability reporting frameworks and relevant sector-specific guidance; and
- Insights gained from regular interactions with external stakeholders.

As a result of the workshop, the following 6 factors were identified to be material to CEL. These were validated by the Board and are the focus of this inaugural sustainability report.

Sustainability Focus Areas	Material Factors
 <b>Environmental Protection</b>	<ul style="list-style-type: none"> <li>Energy and Emissions</li> </ul>
	<ul style="list-style-type: none"> <li>Water Treatment and Sludge Management</li> </ul>
 <b>Social Responsibility</b>	<ul style="list-style-type: none"> <li>Talent Retention</li> </ul>
	<ul style="list-style-type: none"> <li>Occupational Health &amp; Safety</li> </ul>
	<ul style="list-style-type: none"> <li>Local Communities</li> </ul>
 <b>Regulatory Compliance</b>	<ul style="list-style-type: none"> <li>Anti-corruption</li> </ul>
	<ul style="list-style-type: none"> <li>Compliance with Laws and Regulations</li> </ul>

# Environmental Protection

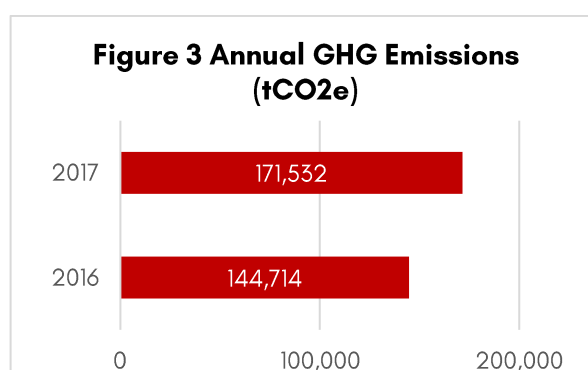
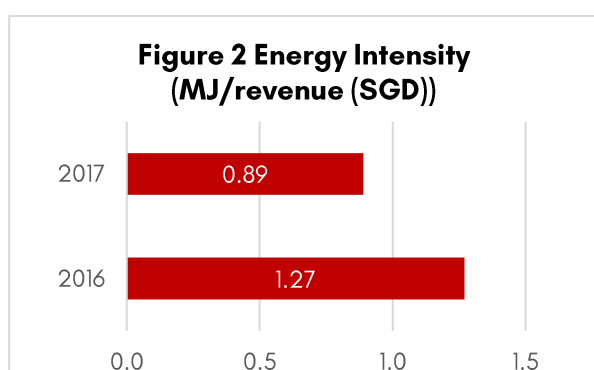
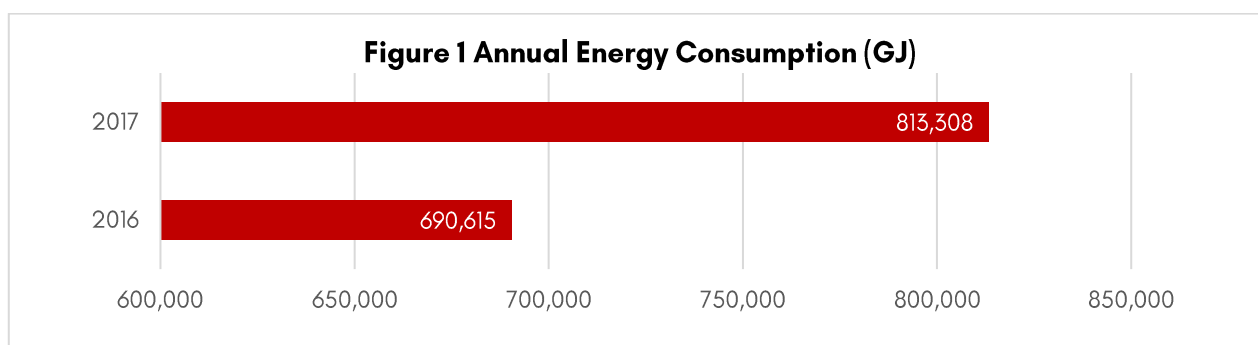
## Energy and Emissions

Indicator	Performance	FY2018 Target(s)
<b>Energy consumption (GJ)</b>	813,308	
<b>Energy intensity (MJ/revenue (SGD))</b>	0.89	<ul style="list-style-type: none"> <li>Reduce energy intensity by 5%</li> </ul>
<b>GHG emissions (tCO<sub>2</sub>e)</b>	171,532	

Climate change and global warming have become ever more critical threats to the environment. As a result, energy use and the production of associated Greenhouse Gas (“GHG”) emissions are emerging concerns globally. Countries like China are increasingly committed to improving energy efficiency and reducing GHG emissions. In response, we take an active role in supporting efforts around managing these negative impacts on the environment.

Energy conservation has always been a key operational focus of CEL. We have implemented, and continue to explore, various energy efficiency initiatives to reduce operational energy consumption:

- Progressively upgrade water plant facilities to improve overall energy efficiency.
- Actively identify and solve problems within the water treatment process by involving a team of technical specialists.
- Constantly optimise the energy consumption and minimise sludge production.
- Regularly carry out maintenance work to improve productivity.
- Successfully award ISO 9001, ISO 14001 and OHSAS 18001 for the following subsidiaries, NOVO Envirotech (Tianjin) Co. Ltd, CITIC Envirotech (Guangzhou) Ltd, Memstar (Mianyang) Co. Ltd, and Memstar (Singapore) Pte Ltd. By 2019, we target to obtain a group certification for ISO 9001, ISO 14001 and ISO 45001.





In 2017, energy consumption amounted to 813,308 gigajoules (GJ), representing an 18% year-on-year increase from 690,615 GJ in 2016. However, the overall energy intensity for CEL decreased from 1.27 MJ/revenue (SGD) in 2016 to 0.89 MJ/revenue (SGD) in 2017. The energy consumption consists of electricity, natural gas, diesel, and petrol usage. The total electricity consumption was derived solely from purchased grid electricity. Natural gas was consumed by centralised heating system in northern part of China in winter. During the reporting period, there was no significant change in petrol and diesel usage for vehicles. The total GHG emissions<sup>1</sup> in 2017 was 171,532 tons of carbon dioxide equivalents (tCO<sub>2</sub>e), a 19% increase from 144,714 tCO<sub>2</sub>e in 2016.

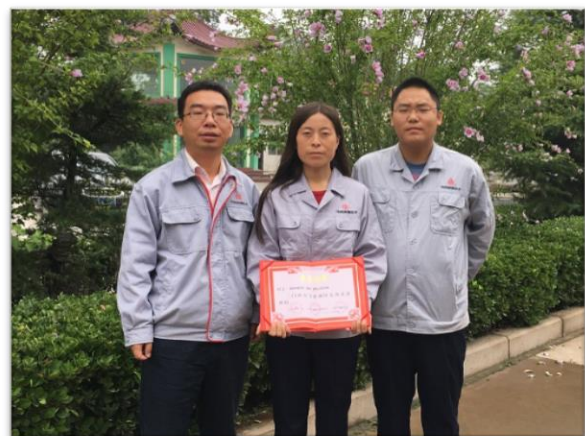
Moving forward, CEL targets to reduce energy intensity by 5% in the forthcoming year.

### CASE STUDY Replace Street Lamps for a Brighter Future

The operation management team of CITIC Envirotech Water Resource (Liaoyang) Co. Ltd strives to work towards a sustainable future by improving the energy efficiency of its existing facilities. In June 2017, the company approved an initiative with an aim of replacing all street lamps in the plant. As a result, 56 high-pressure sodium lamps were replaced by LED lights. By implementing this initiative, approximately RMB 30,000 (approx. SGD 6,000) of electricity cost can be saved on a yearly basis while improving the lighting performance at the same time.

### CASE STUDY Energy Saving and Emission Reduction Competition

To further reduce our environmental impact, in 2016, Aton Environmental (Shenyang) Co., Ltd and United Envirotech Water (Mianchi) Co., Ltd achieved remarkable results at a completion of 'Energy Saving and Emission Reduction' which was held by local government. During the contest, a total of 3,855 tonnes of COD and 450 tonnes of NH<sub>3</sub>-N were removed by treating 19.95 million m<sup>3</sup> of waste water. Their achievements set a good example and were awarded by the local government and environmental protection agencies.



<sup>1</sup> The GHG emissions in this report were calculated based on the electricity consumption in China and Singapore and the vehicles' fuel consumption in China. The calculation used a list of reference documents as shown below:

- China electricity emission: 《2011 年和 2012 年中国区域电网平均二氧化碳排放因子》
- Singapore electricity emission: Singapore Energy Statistics 2016 & 2017 published by Singapore Energy Market Authority
- China vehicles' fuel emission: 《道路机动车大气污染物排放清单编制技术指南》

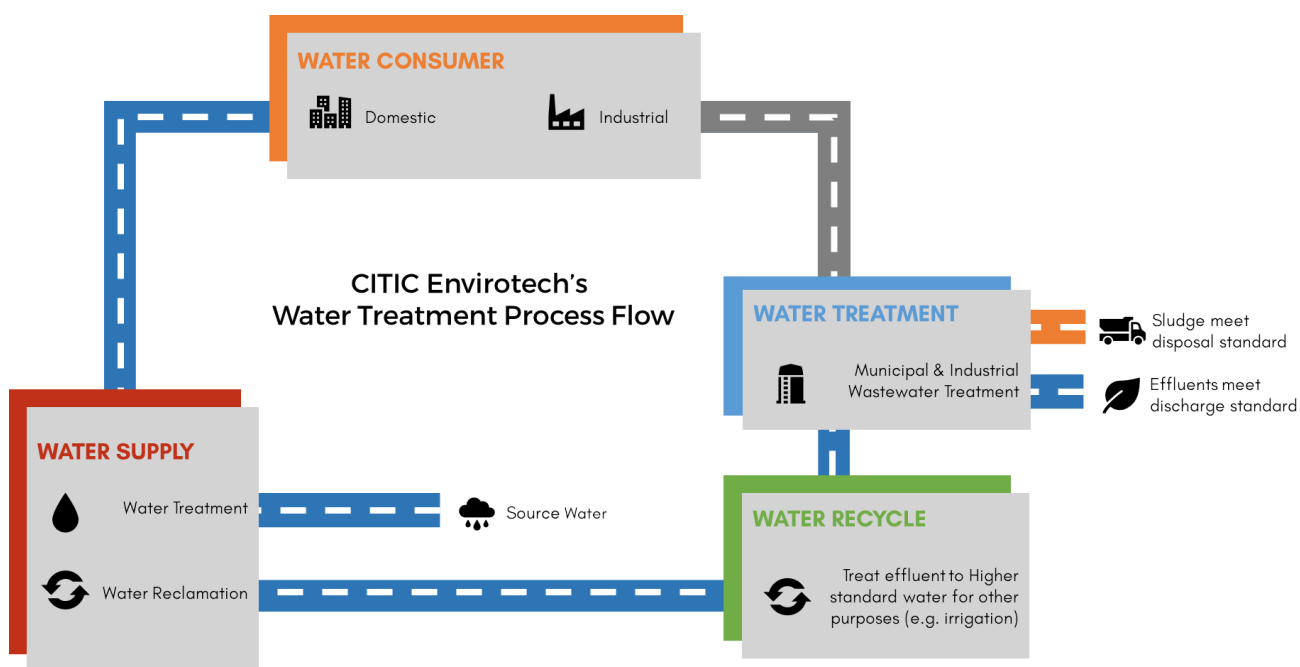
## Water Treatment and Sludge Management

Indicator	Performance	FY2018 Target(s)
<b>Number of incidents of non-compliance</b>	No incidents of non-compliance leading to a fine with water discharge laws and regulations	<ul style="list-style-type: none"> <li>Maintain zero incidents of non-compliance leading to a fine with water discharge laws and regulations</li> </ul>
<b>Total weight of sludge waste (tons)</b>	193,718	<ul style="list-style-type: none"> <li>Reduce 80% sludge being disposed to the landfill at our pilot plant</li> </ul>

### Water Treatment

At CEL, we offer a range of services for water treatment. Our expertise is backed by state-of-the-art technology and proactive maintenance approaches, and covers a complete array of solutions to meet our clients' needs. To-date, we have more than 60 water treatment assets with a daily design capacity exceeding 6 million m<sup>3</sup> per day.

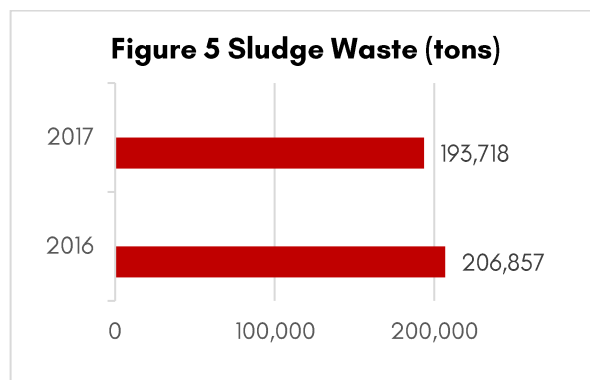
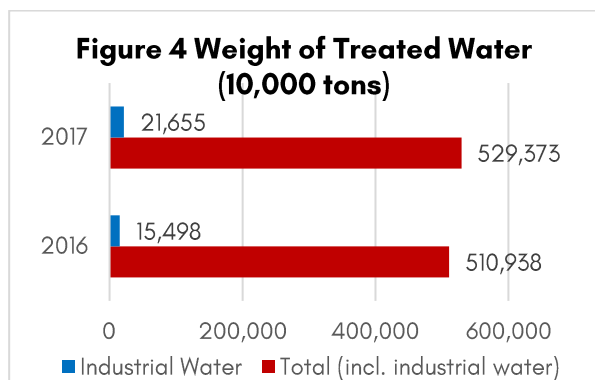
Water treatment is the process of improving the quality of water to make it more acceptable for a specific end-use. The end-use may be drinking, potable water supply, irrigation or many other uses, including being safely discharged to the environment. As shown below, the enclosed flow schematic details the water treatment process for different types of water treatment plants.



As a leading environmental solutions provider, we are equipped with strong research and development capabilities and have succeeded in developing advanced technology - Membrane Bio-Reactor ("MBR"), Continuous Membrane Filtration ("CMF"), and Reverse Osmosis ("RO"). The technology is applied to a variety of water treatment projects and has achieved remarkable results in the field of industrial wastewater, large-scale municipal sewage, and drinking water treatment.

In 2017, our operating water treatment plants treated over 529,372,958 tons of water, resulting in 4% increase from 510,937,511 tons in 2016. In total, these operations reduced 12,159 tons of Chemical Oxygen

Demand (“COD”)<sup>2</sup> emissions. As industrial wastewater contains chemicals and other toxins that can largely harm the environment, we endeavour to continue to increase its proportion of our water treatment business. The amount of treated industrial wastewater therefore raised by 40% from 154,981,651 tons in 2016 to 216,547,988 tons in 2017.



### Effluents Management

Effluent is the treated water that is discharged from our facilities to the environment. The quality of this effluent is highly regulated to avoid contamination of the environment that it is discharged into. For economic, regulatory and environmental reasons, management of effluent is an important consideration for the industry and the business.

In order to ensure compliance with all environmental legislations for water discharged, we establish due diligence teams, which comprise a group of specialists, including finance and legal professionals, technicians, as well as Operation and Maintenance (“O&M”) engineers. By utilising their expertise, the diverse team is able to conduct comprehensive reviews of the use of technology, mechanical integrity of plant/equipment, and suspected non-compliance on a regular basis. Where gaps are identified, concrete actions are undertaken to eliminate the risks.

In addition, we manage effluents by implementing operation management systems in accordance to ISO 9001, ISO 14001 and ISO 45001. This ensures operation risks are reviewed annually. The operation management systems also include regular inspection, testing and maintenance, emergency preparedness and response programmes. By 2019, we plan to extend the scope of existing management system standardisation to all of our subsidiaries.

We consider non-compliance with laws or regulations related to effluents as critical events. The Critical Event Management Committee consists of the CEO, Executive Vice President – Board Office, Senior Vice Presidents, and the CFO. In the absence of the CEO, the Executive Vice President – Board Office will chair the Committee to outline both immediate and subsequent actions required till the crisis event is brought under control. The Committee will ensure that an action plan agreed with all stakeholders is established and followed through. In the extreme case of any negative health impacts to our customers and surrounding communities, the Committee will ensure that immediate medical help is rendered, with the involvement of the local government where applicable.

During the reporting period, there were no confirmed incidents of non-compliance with water discharge laws and regulations. Moving forward, CEL targets to maintain zero incidents of non-compliance with water discharge laws and regulations.

<sup>2</sup> Chemical Oxygen Demand or COD is a measurement of the oxygen required to oxidize soluble and particulate organic matter in water. It is an important water quality parameter as it provides an index to assess the effect discharged wastewater will have on the receiving environment.



## Sludge Management

The municipal sewage sludge generated from our water treatment operations can be harmful to human health and the environment. As part of our sludge management approach, the sludge is treated and properly disposed. First it is dehydrated to reduce its volume before being disposed of in landfills and hazardous sludge is incinerated. As shown in the diagram below, the sludge waste reduced by 6% from 206,857 tons in 2016 to 193,718 tons in 2017.

With strong support from the management, we are in the process of assessing feasibilities of alternative technologies for more efficient and effective sludge management. In the forthcoming year, it is our goal to complete a demonstration project which will decrease 80% sludge being disposed to the landfill in a selected pilot plant, the reduction will be calculated based on the volume of treated water for a like-for-like comparison. By 2020, we plan to implement one or two more efficient and effective sludge treatment technologies to streamline the process and minimise the quantity of sludge for direct disposal.

# Social Responsibility

## Talent Retention

Indicator	Performance	FY2018 Target(s)
<b>Rate of Employee Turnover</b>	15.1%	▪ Maintain employee turnover rate below the national industry average in China

At CEL, we believe that our organisation is only as successful as our people. The retention of a strong workforce is therefore critical to ensuring our sustained long-term growth. We culture a loyal staff base through our benefits, training and development, equal opportunity and fair labour practices.

## Benefits, Training and Development

In line with our commitment towards creating a positive work environment, we have adopted a strategic rewarding system based on our employees' abilities, performance and experiences to make a positive contribution to the values and business objectives of CEL. Employees' performance is linked directly to their compensation package and is an important basis for decisions such as salary adjustment, bonus distribution, personnel training, and job promotion. In addition to statutory benefits, namely social care and provident fund, we also provide supplementary welfare and insurance coverage to our employees. This includes the entitlement of paid annual and sick leave, which exceeds the National Standards in China. In 2013, we introduced the Employee Share Option Scheme ("ESOS") to motivate employees to have long-term careers aspirations with CEL and encourage them to reach their full potential. This reward scheme contributes a win-win situation for both our organisation and our employees.

In a dynamic business environment, we recognise the need to continuously upgrade our employees' skills in order to equip them with the tools necessary for growth. Employees' training and development remain our key priorities. Based on their personal development aspirations, we establish middle and long term career plans for everyone to ensure their interests are aligned with organisational goals. Every year, we prepare an annual education and training plan that includes revising and delivering the new employee induction programme, assessing and developing professional skills and supporting qualification training and technical management education. These programs are implemented through lectures, knowledge exchange, expatriate training and so on. Moreover, we organise group discussions between technicians and onsite operators on a regular basis and encourage cross-regional knowledge sharing among all business divisions to keep knowledge fresh and up-to-date as well as sharing learnings and practices across the organisation. In order to comprehensively improve the skillsets of personnel from the project management and water plant operational divisions, we organised two batches of "2017 Group Training" in Shandong Changyi and Hebei Gaoyang in April and May respectively. A total of more than 200 employees participated. The training consists of the following modules: project management practice and case studies, management of water plant operation, financial knowledge and management requirements of the group business, process of industrial sewage treatment and case studies, MBR technology and operation, teamwork and organisational performance and project site visit. We also support our employees to increase their value by obtaining various professional qualifications. Related expenses can be reimbursed by the organisation upon successful completion of the course.



## Equal Opportunity

CEL is committed to creating equality of opportunity, which means treating people fairly and without bias. We endeavour to create an environment where our employees feel valued and respected. Discrimination due to social class, nationality, physical disability or gender is not tolerated in our workplace. Actions or comments of racial or religious slurs are also unacceptable.


Human resource strategies and policies have been developed to stipulate fair and equal opportunities to all employees and job applicants. We recruit individuals with the necessary competencies, experience and qualifications without any discrimination.



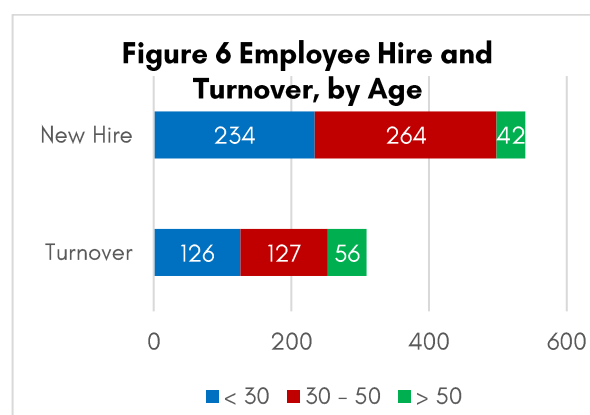
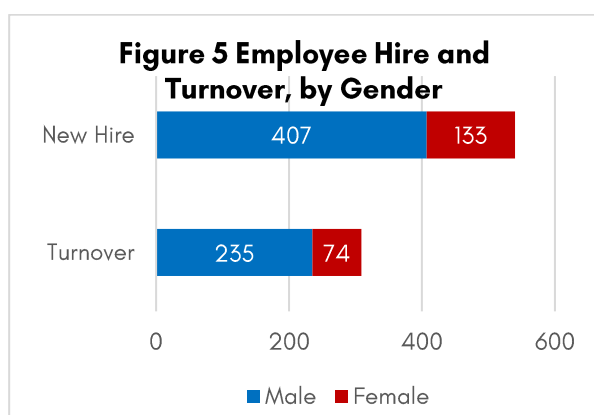
## Fair Labour Practices

To establish stable and harmonious labour-management relations between our employees and management, a labour contract policy is in place for CEL and its subsidiaries. All employees are required to sign an official labour contract with the organisation. It ensures compliance with the applicable regulatory requirements in terms of employees' working hours, work environment, labour compensation, statutory benefits and labour protection. As a result, there have been zero disputes and lawsuits related to employment for all subsidiaries. In addition, we contribute funding to an employee union within our organisation for recreational activities. The union representatives protect the collective interests of the employees and provide feedback to the organisation. We believe that such continuous dialogues can help to reduce turnover while improving working conditions.

By implementing the above practices, we have successfully maintained a diverse workforce. As of 31 December 2017, CEL had 2,053 employees, including 1,868 full time staff and 185 part-time workers. Among all employees, 32% are <30 years old, 55% within the 30-50 age group and 12% are >50 years old. Female and male employees constitute 32% and 68% respectively. Turnover rate was 15% and new hire rate was 26% during the year.

FY2017 Workforce		
	<b>Permanent Employees</b> Male: 1,263 Female: 605	<b>Temporary Employees</b> Male: 135 Female: 50

## Hiring and Turnover



TURNOVER RATE	2017	2016
CITIC Envirotech Ltd.	15.1%	19.9%
National Industry Average* (China)	21.6%	20.1%

\*Source: 2017 Human Resources White Paper (China)前程无忧网站发布的《2017 人力资源白皮书》--中国境内

Moving forward, CEL targets to maintain employee turnover rate below the national industry average in China.





## Occupational Health and Safety

Indicator	Performance	FY2018 Target(s)
<b>Number of Injuries</b>	8	<ul style="list-style-type: none"> <li>▪ Maintain zero incidents resulting in employee permanent disability or fatality</li> <li>▪ Increase average occupational health and safety training hours per employee to 12 hours</li> </ul>
<b>Number of fatalities</b>	0	
<b>Lost time Injury Rate</b>	1.9	
<b>Injury Severity Rate</b>	55.6	

As a responsible employer, workplace health and safety is one of the core values of our company and leadership team. This is particularly important for our EPC, water plant and membrane manufacturing subsidiaries. We have therefore put considerable effort into creating a conducive and safe environment by consciously applying a risk-based approach.

### Risk Based Approach

CEL has risk assessment procedures in place for operational activities. Each unit, including plants and projects, are required to document health and safety risks. Thereafter, risk profiles are reviewed annually and updated whenever there are changes to the facility, technology and process.

For EPC operation, we subcontract design and construction works to qualified and competent third parties in order to mitigate the risks. Our standard contract terms determine the safety accountability system and require main contractors to provide on-site workers Personal Protective Equipment ("PPE") as well as have effective health and safety management processes and systems in place. Before starting a new project, we provide safety training, check the certifications of qualified personnel, and inspect the safety equipment they bring to the site. In addition, we appoint external project managers and project coordinators to monitor and conduct periodical safety audits onsite.

Each water treatment plant is required to form an emergency response procedure, involving evacuation, safe shut-down and start-up. The emergency drill is conducted at least once a year. Operation Manuals

are provided to all employees, which contain safe work instructions for entering into confined spaces, lifting and working at heights, storing and using chemicals, and many more scenarios. For new starters, health and safety operations are taught through on-the-job training via a buddy system. Employees working in critical jobs, which require certifications and permits, maintain their qualification and competence by means of registered training courses on a regular basis. As part of the assurance process, we also conduct quarterly health and safety reviews. With the aim of improving workplace safety, the results of the review for each plant are tied to the annual performance bonus of the operation teams.

### Awareness Raising and Oversight

To raise occupational health and safety awareness, various programmes and activities are initiated at our membrane production facilities. In day-to-day operation, employees are required to ensure that the necessary safety measures are implemented prior to carrying out work. Regular inspections are implemented to ensure health and safety practices are well maintained. Throughout the year, our employees participated in safety training and communications such as hazard reporting, evacuation exercises for chemical spillage, and reviews of operating procedures. These programmes enhanced employee engagement to identify potential risks and improve operational standards.

Moreover, we are progressively implementing internal policy development and review process by establishing Health, Safety and Environment (“HSE”) committees in all subsidiaries. The committees strengthen the performance of health and safety system, and implement a workplace responsibility system at all levels, in order to strictly prevent major safety incidents.

### International Standards

We are continually seeking to improve workplace conditions by establishing better measurement methods to monitor the working environment and obtaining the necessary legal operating licences. In line with this approach, we are working to implement operation management systems in accordance with international standards. This ensures the current approach is improved regularly through an evaluation and review process. CEL’s fully owned EPC subsidiaries in GuangZhou and Tianjin, and manufacturing plants in MianYang and Singapore, have been certified by BS OHSAS 18001 since 2006 and 2016 respectively. In 2017, the certifications have been maintained successfully.

While we continue to encourage employees to work towards the goal of zero injuries, there were however eight lost-time injuries incurred in 2017, resulting in 160 lost scheduled work days. The increased number of lost days comparing to 2016 was due to a longer recuperating period required for two employees who suffered from hand and foot injuries respectively. Also, the organisation continued to record zero incidents of work-related fatalities for CEL’s employees.

Unfortunately, the death of an outsourcing personnel was reported during the year due to an electrocution accident. As soon as the tragedy incurred, we immediately followed the emergency procedure by informing the safety supervision department and setting up an internal team to investigate the cause of the incident. The outcome of the investigation indicated that it was caused by incompliance with standard operational procedure. We have carried out a root cause analysis which revealed there were loopholes in the evaluation of outsourcer’s professional qualification as the requirement was not strictly implemented. In response to this, we have enhanced preventive measures to minimise the risk of repeat accidents. These include strengthening the management of outsourcers, establishing HSE committee, conducting in-depth review of potential risks, providing HSE training, and so on.

Moving forward, CEL aims to achieve zero incidents resulting in employee permanent disability or fatality. Also, we target to increase average occupational health and safety training hours per employee from 10.72 hours in 2017 to 12 hours in the forthcoming year.



## Local Community

Indicator	Performance	FY2018 Target(s)
Number of implemented local community engagement	2	<ul style="list-style-type: none"> <li>Support two local community engagements by cooperating with different organisations and encourage staff volunteerism with corporate social responsibility events benefitting the local communities</li> </ul>

While pursuing growth and development, we believe in giving back to the community. Where possible, CEL strive to engage in activities that promote positive impacts. We partner with various organisations, including government bodies and registered charities, to address the identified concerns raised by local communities.

Over the past few years, we supported the reconstruction of Wenchuan County and the development of new rural areas in Jiangsu Province. In 2017, we actively participated in activities related to water supply and protection:

## Village Water Management (“VWM”) Programme<sup>3</sup>

CEL has taken part in the VWM programme since 2014 by cooperating with Lien AID, an international charity committed to enabling sustainable access to clean water and sanitation for Asia’s rural poor. The programme delivers clean water projects through Student Village Officers living and working in rural poor communities with acute water needs. We participated in the programme’s funding and construction of 15 projects in China until 2017. The projects which co-funded by CEL benefited an estimated 18657 rural poor villagers (including 55 students & teachers) from 4060 households (including 1 school). The table below summarises the programme information.

<b>Project Duration:</b>		3 Years				
<b>Donation Amount:</b>		SGD 300,000				
<b>Project Summary:</b>						
Year	Village	Location	Breakdown of Beneficiaries			
		Province - Prefecture - County - Township	Households	Villagers	Schools	Students & Teachers
<b>Year 1</b>	Daba	Guizhou - Zunyi - Chishui - Lianghekou	106	568	1	55
	Tiantaishan	Guizhou - Zunyi - Chishui - Tiantai	222	1,545	-	-
	Baoyuan	Guizhou - Zunyi - Chishui - Baoyuan	395	1,185	-	-
	Lianhe	Guizhou - Bijie - Qianxi - Jinbi	193	740	-	-
	Huangtian	Guizhou - Bijie - Qianxi - Wuli	387	1,916	-	-
	<b>Year 2</b>	Wafang	Guizhou - Bijie - Qianxi - Jinlan	209	1,190	-
Shuangyu		313		1,257	-	-
Longshan		332		1,821	-	-
Jinlan		443		2,312	-	-
Miandi		Guizhou - Zunyi - Tongzi - Yangdeng	161	575	-	-
<b>Year 3</b>	Huabu	Guizhou - Bijie - Qianxi - Wuli	345	1,633	-	-
	Jinji		287	1,157	-	-
	Shimen		139	606	-	-
	Xinfa		367	1,454	-	-
	Shifeng	Chongqing -N.A. - Zhong - Yongfeng	160	643	-	-
<b>Total</b>			<b>4,059</b>	<b>18,602</b>	<b>1</b>	<b>55</b>

With the professional water treatment knowledge and project management experience, CEL worked with Lien AID, trained and mentored selected Student Village Officers in basic water project management, both before and during implementation of the project. The Student Village Officers work closely with the township or county water bureaus as well as other local government officials to raise local government co-funding and produce the engineering and construction design of the water facilities. Water facilities built are typically simple piped water supply schemes bringing clean water directly to households. The piped water systems are designed to provide the community with continuous and sufficient supply of clean water that meets national drinking water standards, even during seasonal droughts.

Student Village Officers are also trained to conduct health and hygiene campaigns, and provided with guidance on the setting up of village water management committees. The village water management

<sup>3</sup> Detailed information in regards to the programme can be found by visiting Lien Aid’s official website: <http://www.lienaid.org/where-we-work/china/>



committees collect water tariffs from residents which will go towards maintenance and operations of the facilities. All built facilities are owned, operated and managed by the local communities. Sustainability of project outcomes is enhanced as implementation and subsequent operation and maintenance of the facilities continue to be driven by the Student Village Officers and local government leaders who work and live in the communities.

We are proud to be recognised for our contribution to the local economy and community. The projects received honorary certificates from China Association of Poverty Alleviation and Development.





## Water Awareness Campaigns

CEL is actively engaged in environmental activities, especially activities that are water awareness related. We endeavour to instil in youngsters a sense of responsibility and cultivate a sustainable mindset.

On World Environment Day 2017, CEL's subsidiaries and water treatment plants collaborated with local environmental protection agencies in the planning and launching of various kinds of popular science activities, such as "I do health screening for the river", "Popularisation of Environmental Science", and so on. During the events, youngsters are encouraged to take samples of water in water bodies around them and bring them to the water treatment plants. By utilising the advanced testing technologies in CEL's laboratories, they went through an interactive education session on water conservation and pollution. The event received enthusiastic response from the local communities.

In June 2017, we are honoured to have received award of 2017 China Environmental and Social Responsible Enterprise and 5<sup>th</sup> Jun Environmental Day - Public Welfare Poster Special Contribution Award at 2017 China Green Development Forum.

Moving forward, CEL is committed to support two local community engagements by cooperating with different organisations and encourage staff volunteerism with corporate social responsibility events benefitting the local communities.



## Regulatory Compliance

Indicator	Performance	FY2018 Target(s)
Confirmed incidents of corruption and actions taken	Zero confirmed incidents of corruption during the year	Maintain zero confirmed incidents of corruption
Non-compliance with laws and/or regulations which resulted in significant fines and non-monetary sanctions	Zero incidence of such non-compliance during the year	Maintain zero incidence of such non-compliance
Non-compliance with environmental laws and/or regulations which resulted in significant fines and non-monetary sanctions	Zero incidence of such non-compliance during the year	Maintain zero incidence of such non-compliance

### Anti-corruption

To eliminate undesirable behaviour among employees and prevent reputational damage as well as the undermining of stakeholder trust, we have a zero tolerance policy towards to any unethical and corrupt practices.

At CEL, the management takes a leadership position in fostering a strong corporate governance culture and implementing policies that promote ethical behaviour. Our labour contract sets out our expectations for employees in relation to issues such as fraud, conflicts of interest and prohibition of commercial bribery. Employees are also required to adhere to various corporate policies and standard operating procedures which provide guidance on the proper conduct of our employees, for example:

- Implementation of Corruption Reporting System;
- Integrity Agreement in the contract standard terms and conditions between CEL and the third-parties;
- Periodic anti-corruption training and review for employees working in high-risk functions;
- Frequent reminders received from CITIC Group to enhance transparency and promote anti-corruption measures.

We also encourage open communication with employees. A whistle-blowing policy is in place to provide a transparent channel for employees to raise concerns about possible fraud, improprieties in financial reporting and other matters.

There were no confirmed incidents of corruption during the year. Moving forward, CEL targets to maintain zero confirmed incidents of corruption continuously.

### Compliance with Other Laws and Regulations

We recognise a breach of any law or regulation could have significant impact on the operation of our business and result in irreversible reputational damage. In some circumstances, non-compliance can lead to clean-up obligations or other costly environmental liabilities. We adhere to the highest standards of corporate governance practices which ensure us compliance of all applicable laws and regulations.

Our projects are subject to environmental laws and regulations, including discharge standards. With increasingly stringent legislation, we have been proactively monitoring the water quality of all treatment plants. Incoming and outgoing water is either automatically or manually sampled. It is then tested for key discharge quality parameters round the clock. To be able to detect and correct any issues at early stage, operation teams report performance metrics on a weekly basis. All plants have critical control processes

and emergency response plans in place. We also work closely with local government and enforcement agencies to minimise negative environmental impact and ensure a quick response to legislative changes.

There were no incidents of non-compliance with laws and regulations resulting in significant fines or sanctions in 2017. Moving forward, CEL targets to maintain zero incidents of non-compliance with laws and regulations.



# 2017 Key Awards and Recognition



2017 China Environmental and Social Responsible Enterprise and 5th Jun Environmental Day - Public Welfare Poster Special Contribution Award by China Environment News



AAA Credit Grade by China Association of Environmental Protection Industry

Guangdong Province Enterprise of Observing Contract and Valuing Credit by Guangzhou Administration of Industry and Commerce



The most valuable investment listed company and the Best Online Vote Popularity Award by E20 Institute of Environment Industry and H2O-China Website



ISO 9001, ISO 14001 & OHSAS 18001 for Guangzhou & Tianjin subsidiaries



ISO 9001, ISO 14001 & OHSAS 18001 for Memstar Singapore



Successfully updated ISO 9001 & ISO 14001 for Memstar (Mianyang)

## Acknowledgements and Disclaimer

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### Disclaimer

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## GRI Index

GRI Standards (2016)		Notes/Page number(s)
<b>General Disclosures</b>		
<b>Organisational Profile</b>		
<b>102-1</b>	Name of the organisation	CITIC Envirotech Limited
<b>102-2</b>	Activities, brands, products, and services	CEL's Sustainability Future, page 2
<b>102-3</b>	Location of headquarter	Singapore
<b>102-4</b>	Location of operations	Singapore, China, USA, Malaysia and Indonesia
<b>102-7</b>	Scale of the organisation	Talent Retention, page 13
<b>102-8</b>	Information on employees and other workers	Talent Retention, page 13
<b>102-10</b>	Significant changes to organisation and its supply chain	None in FY2017
<b>102-11</b>	Precautionary principle or approach	CEL does not specifically address the principles of the precautionary approach
<b>102-12</b>	External initiatives	Not applicable
<b>102-13</b>	Membership of associations	Stakeholder Engagement, page 5
<b>Strategy</b>		
<b>102-14</b>	Statement from senior decision-maker	Board Statement, page 1
<b>Governance</b>		
<b>102-18</b>	Governance structure	Sustainability Governance, page 6
<b>Stakeholder Engagement</b>		
<b>102-40</b>	List of stakeholder groups	Stakeholder Engagement, page 5
<b>102-41</b>	Collective bargaining agreements	No collective bargaining agreements are in place
<b>102-42</b>	Identifying and selecting stakeholders	Stakeholder Engagement, page 5
<b>102-43</b>	Approach to stakeholder engagement	Stakeholder Engagement, page 5
<b>102-44</b>	Key topics and concerns raised	Stakeholder Engagement, page 5
<b>Reporting Practice</b>		
<b>102-46</b>	Defining report content and topic Boundaries	Our Report, page 4
<b>102-47</b>	List of material topics	Materiality Assessment, page 7
<b>102-48</b>	Restatements of information	Not applicable
<b>102-49</b>	Changes in reporting	Not applicable
<b>102-50</b>	Reporting period	1 January 2017 – 31 December 2017
<b>102-51</b>	Date of most recent report	Not applicable
<b>102-52</b>	Reporting cycle	Annual
<b>102-53</b>	Contact point for questions regarding the report	Our Report, page 4
<b>102-54</b>	Claims of reporting in accordance with GRI Standards	Board Statement, page 1
<b>102-55</b>	GRI content index	GRI Index, page 27
<b>102-56</b>	External assurance	CITIC Envirotech Limited has not sought external assurance for this reporting period and may consider it for future periods.



<b>Management Approach</b>		
<b>103-1</b>	Explanation of the material topic and its boundary	Our Report, page 4 Sustainability Governance, page 6
<b>103-2</b>	The management approach and its components	Environmental Protection, page 8 Social Responsibility, page 13
<b>103-3</b>	Evaluation of the management approach	Regulatory Compliance, page 22
<b>Material Topics</b>		
<b>Anti-corruption</b>		
<b>205-3</b>	Confirmed incidents of corruption and actions taken	Anti-corruption, page 22
<b>Energy</b>		
<b>302-1</b>	Energy consumption within the organisation	Energy and Emissions, page 8
<b>302-3</b>	Energy intensity	
<b>Effluents and Waste</b>		
<b>306-2</b>	Waste by type and disposal method	Water Treatment and Sludge Management, page 10
<b>Environmental Compliance</b>		
<b>307-1</b>	Non-compliance with environmental laws and regulations	Water Treatment and Sludge Management, page 10 Compliance with Other Laws and Regulations, page 22
<b>Employment</b>		
<b>401-1</b>	New employee hires and employee turnover	Talent Retention, page 13
<b>Occupational Health &amp; Safety</b>		
<b>403-2</b>	Types of Injury and rates of injury	Occupational Health and Safety, page 16
<b>Training and Education</b>		
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<b>Diversity &amp; Equal Opportunity</b>		
<b>405-1</b>	Diversity of governance bodies and employees	Talent Retention, page 13
<b>Local Communities</b>		
<b>413-1</b>	Operations with local community engagement, impact assessments, and development programs	Local Community, page 18
<b>Socioeconomic Compliance</b>		
<b>419-1</b>	Non-compliance with laws and regulations in the social and economic area	Compliance with Other Laws and Regulations, page 22



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