

# Veolia in China



## Our mission: “Resourcing the world”

### Our sustainable solutions for municipalities and industries

### Our businesses in China

- Providing Effective Solutions to Seven Segments
- Our Business Cases

### Achieving a better and more sustainable future for all

- Veolia’s Purpose serving as a compass for the Group through the Multifaceted Performance Indicators, fully integrated into the Impact 2023 Strategic Program...

### Our actions in China

- Achieving Environmental Performance
- Achieving Human Resources Performance

## Our mission: “Resourcing the world”

Leveraging over 160 years of expertise shared across the globe, Veolia’s key businesses focus on the areas of **water, energy and waste**. In China, we provide environmental solutions in **seven segments**, many of which involve specialized experience and know-how.

Through relentless pursuit in our specialized field, innovative services and cutting-edge expertise, we have been able to improve **our environmental footprint and that of our customers**, elevating **local and urban environmental performance**, contributing to **human progress** and achieving **a better and more sustainable future for all**.

Veolia has set itself the long-term mission to “**Resourcing the world**”, and is committed to making **a positive impact** on the Earth and the environment.

In over 100 sites operating and managed in China, Veolia has upheld its mission and vision, striving to become **the benchmark company for ecological transformation**.

#### IMPROVING ACCESS TO RESOURCES

Veolia offers operational solutions that consume fewer environmental resources and are more economically efficient, so as to expand both the potential and the accessibility of the resources available.

#### PRESERVING RESOURCES

Veolia develops solutions to conserve resources and optimize their use, while protecting their quality and efficiency throughout the usage cycle.

#### REPLENISHING RESOURCES

Veolia provides solutions for creating new “secondary” resources that will gradually offset the increasing scarcity of natural “primary” resources, generating new opportunities for social and economic development that protect the environment.

# Our sustainable solutions

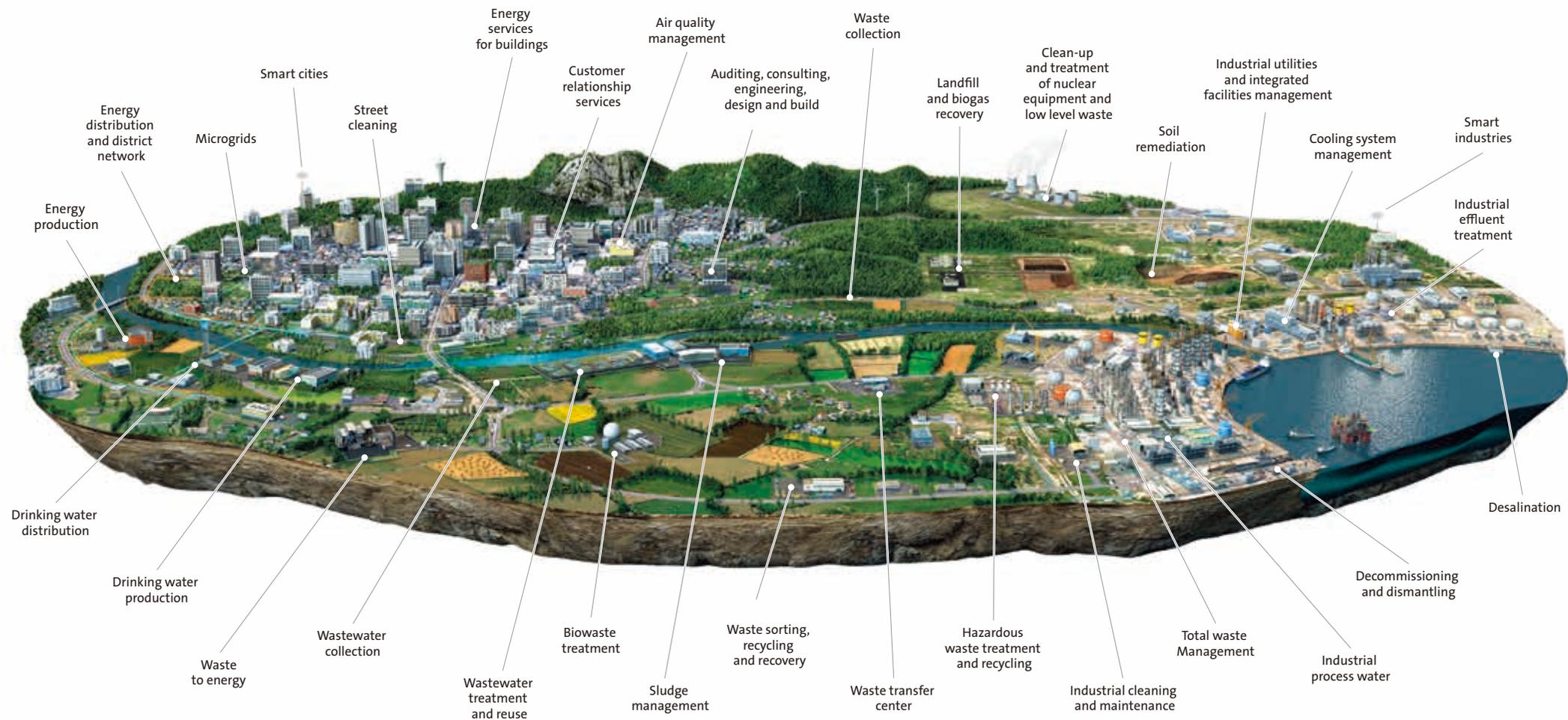
Through continuous business reinforcement and reforms, Veolia has firmly committed to the sustainable development goals set by the UN. We provide field-related expertise and global experience sharing, which enables us to play a vital role in treating and monitoring water at all stages of the cycle, the entire waste lifecycle and every segment of the entire energy chain. Veolia supports the economic growth of its municipal and industrial customers with its effective solutions and promotes the development of circular economy industries.

**€27.189**  
Consolidated revenue

# for municipalities and industries

In 2019, Veolia supplied **98 million** people with drinking water and **67 million** people with wastewater service. On behalf of our municipal clients, we provided waste collection services for **42 million** residents and effectively processed **50 million** tons of waste. In addition, we produced and provided **41 million MWh** of energy for city and individual customers, and managed **45,097** thermal energy facilities.

**178,780**  
employees all over the world



# Our businesses in China

Veolia brought its water services to China in the 1990s, and went on to provide waste management and energy services in the China market. In 2014, the group carried out a strategic reform, setting its mission to be "Resourcing the world", striving to tackle global resource problems and reenergize economic and social developments with a holistic approach.

In 2019, while upholding its long-term mission, Veolia Group rolled out its "Impact 2023" strategic plan and Veolia's Purpose execution plan, dividing its Chinese business into 7 segments of expertise: **Access to Water and Sanitation, Water Technologies, Solid Waste Treatment, Recycling & Valorization, Liquid & Hazardous Waste Treatment & Valorization, Local Loops of Energy, Energy Services for Buildings, and On site Services to Industrial Clients.**



*6,573 employees in China, spanning over 100 sites in around 40 cities. On our mission to "Resourcing the world", we are committed to sharing experience and progressing together.*

# Providing effective solutions to seven segments

## ACCESS TO WATER AND SANITATION

As a global expert in water operations, we manage municipal water and wastewater treatment facilities, as well as networks through PPP (public-private partnerships) contracts (with local or state authorities).

We support local authorities by optimizing the cost of water, improving the quality of the service, and by building innovative offers for communities.

- Provided **33.9** million people with drinking water
- Introduced **4** billion m<sup>3</sup> of drinking water to network
- Collected **1.5** billion m<sup>3</sup> of wastewater
- **11.6** million people connected to our wastewater networks

## SOLID WASTE TREATMENT, RECYCLING & VALORIZATION

We offer waste management solutions to help clients optimize their production flow, reduce treatment costs and lower their impact on the environment.

Veolia is one of the major players in materials recycling management and a circular economy specialist. We recycle many different kinds of waste and turn them into resources.

- Produced **1.7** million MWh of renewable

## ENERGY SERVICES FOR BUILDINGS

Our solutions guarantee energy and utilities supply performance. We ensure quality, availability and overall energy performance by reducing and controlling energy demand and optimizing O&M.

- Over **120** contracts

## LIQUID & HAZARDOUS WASTE TREATMENT & VALORIZATION

We help our customers address their main environmental challenges in hazardous waste management by ensuring compliant and safe management of hazardous waste with full traceability, storage or recycling, and contribute to improving environmental impact.

We provide sustainable, compliant and cost-effective solution to some of today's toughest waste challenges.

- Treated **451,000** tons of hazardous waste
- Over **1,400** clients served by hazardous industrial waste collection

## ON-SITE SERVICES TO INDUSTRIAL CLIENTS

We provide on-site services for various types of Industries: Oil & Gas, Petrochemicals, Mining and Metals, Automotive, Semiconductor etc.

We manage the full water cycle from process water to wastewater treatment and ZLD scheme, as well as the supply of energy and Industrial utilities to single site or large industrial complex.

- **26.5** million m<sup>3</sup> of cooling water produced
- **42.6** million m<sup>3</sup> of process water produced for clients
- **43.4** million m<sup>3</sup> of effluent treated

## LOCAL LOOPS OF ENERGY

We operate and maintain district heating and cooling networks, as well as renewable energies plants, using biogas.

We provide centrally produced heated water to residents and commercial buildings, offering an efficient, competitive and reliable source of heating. With local loops of energy, we support new development and provide comfort to existing projects.

- Produced **5.8** million MWh of energy
- **1.4** million people connected to district heating networks

## Water Technologies

Treatment facilities and network provided by Veolia Water Technologies

\* Key figures of Greater China in 2019

# ACCESS TO WATER AND SANITATION

## Shanghai Pudong Water Concession

In 2002, the Shanghai government awarded Veolia a service contract, under which Veolia and Pudong Water Company would set up a joint venture to fully manage the area's water services with world-class standards.

It was the first full water management contract in China, and the first significant public-private partnership in the country's water industry, covering water treatment, water distribution, network management and customer services.



**Population served:** More than **390** million

**Distribution network:** Over **4,900** km

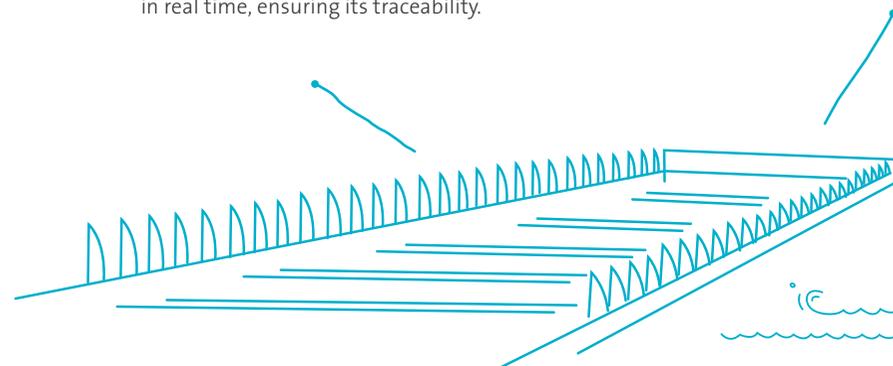
**Water production capacity:** **1,600,000** m<sup>3</sup> /day

### The Water Control Centre

monitors operations and water conditions during production and throughout the distribution network in real time, ensuring its traceability.

### The Water Quality Center

is a centralized laboratory that ensures water quality in Pudong round-the-clock through fully integrated modern management.



## Urumqi Wastewater Treatment Plant

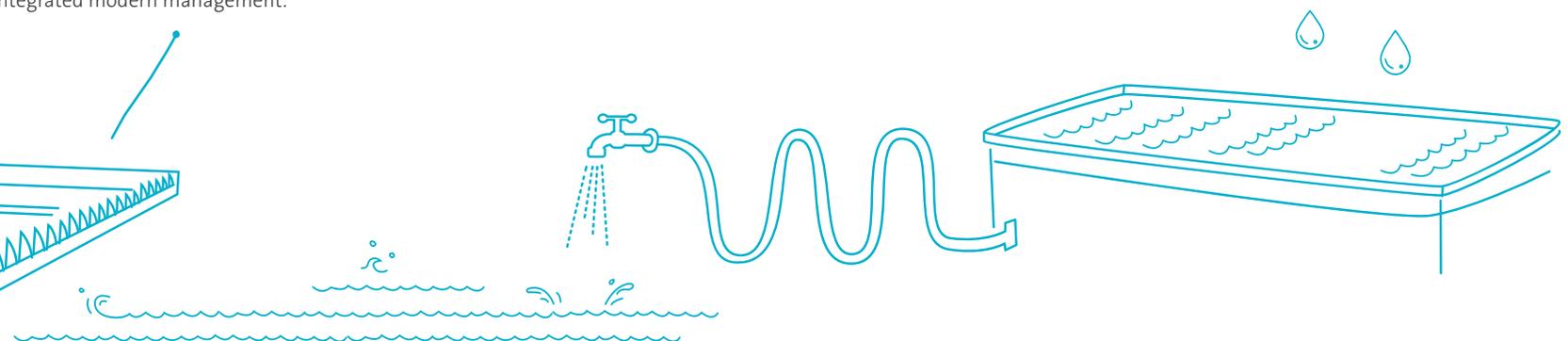


In 2006, Veolia and its partners were awarded a contract for the operation and expansion of the city's Hedong Wastewater Treatment Plant, as well as investment in its phase 2 extension. It was the city's first public-private partnership project.

In Urumqi, Veolia runs six biogas generators that turn sludge into renewable energy. It treats 2,700 m<sup>3</sup> of sludge daily, generating 1,000,000 m<sup>3</sup> of biogas every month. Through cogeneration, the biogas is used to generate heat and power for the plant. It has produced 800,000 kWh of electricity, accounting for 45% of the site's energy needs.

**Population served:** **1.5** million

**Treatment capacity:** **400,000** m<sup>3</sup> /day





### Kunming, Yunnan Water Concession

Veolia and its joint venture partners provide full water services to 3.49 million citizens in Kunming, by operating 10 water treatment plants, distributing treated water, and providing metering and other customer services. Extensive leakage detection, repair and renewal activities are conducted by Veolia to optimize the efficiency of a relatively old network.

### Changzhou, Jiangsu Water Concession

Veolia and its joint venture partner are responsible for the full management of water services for the city of Changzhou, located near Shanghai in the Yangtze River Delta. The 30-year contract includes production, distribution and customer services for the local population of 2 million. A range of improvements has been made, in particular in customer service, which is a new concept in the country's water sector.



### Tianjin TEDA Wastewater Treatment Plant

Tianjin Economic-Technological Development Area (TEDA) is a state-level industrial zone located along the coast of Bohai. Veolia provides wastewater treatment and maintenance services for this fast-growing industrial area, serving a population of 308,200 people in the region.



## SOLID WASTE, RECYCLING & VALORIZATION

### Tonglu WEEE Recycling Plant

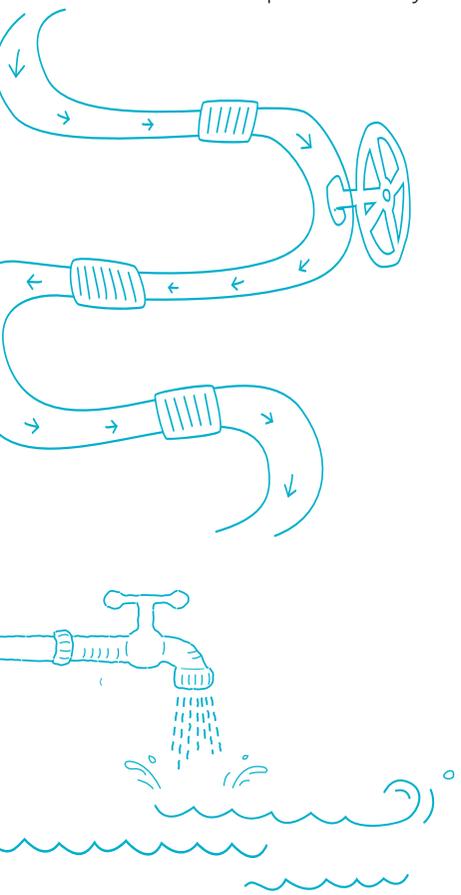
The WEEE Recycling plant, located in Tonglu Hangzhou, is Veolia China's first home appliance recycling project and was named a model plant for resources recycling.

The plant has six dismantling lines which are able to take apart TVs, refrigerators, air conditioners, washing machines, computers, and other electrical products, and recycle the renewable resources in them, including iron, aluminum, copper, glass, plastic and other rare metals.



Annual treatment capacity: **500** million units/year

Total treatment volume: **116,050** tons/year



# SOLID WASTE, RECYCLING & VALORIZATION

## Huafei Plastic Recycling Plant

Veolia Huafei operates five companies, located in Anji, Hangzhou, Wuhan and Changsha. Their activities include plastic bottle recycling, processing and reselling. The company is committed to the circular economy industry, purchasing waste plastic and recycling and producing recycled PET, PP, HDPE and other engineering materials, which are widely used in polyester, packaging, automobiles, digital products and household appliances.



### Design capacity:

Recycled PET flakes: **100,000** tons

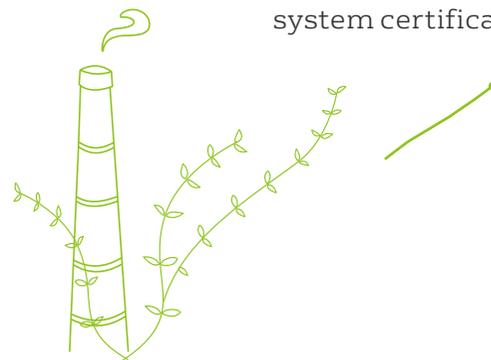
Recycled PET pellets: **100,000** tons

Recycled PP/HDPE/ABS particles: **50,000** tons

The project of Anji in Zhejiang province obtained

**Global Recycled Standard**

system certification in 2016.



## Hong Kong T-Park Sludge Treatment Facility

T-PARK is a Design-Build-Operate project of Veolia. T-PARK is one of the world's largest sludge treatment facilities, with the capacity to treat up to 2,000 tons of sludge per day. Thermal energy from incineration generates electricity, meeting the plant's energy needs and generating surplus electricity which is then exported to the power grid for public use. The sludge volume is reduced by 90% after treatment, offering an effective solution for Hong Kong's sludge, which is a residue from the treatment of sewage waste.



T-PARK's uniquely innovative vision and features have been widely acknowledged in many local and international industrial and design competitions. It has established itself as one of the most popular strategic locations for the Hong Kong government to promote sustainable living and waste treatment.

**Sludge treatment capacity: 2,000** tons/day

**Energy/resources recovered: 14** MW electrical generation capacity

**600**m<sup>3</sup> /day of processed and potable water

Besides sludge incineration facilities, a desalination and wastewater treatment plant, and electricity production, it's also **a public education centre** that receives visitors

**266,800** visitors received



# LIQUID & HAZARDOUS WASTE TREATMENT & VALORIZATION

## Tianjin Hazardous Waste Treatment Plant

Tianjin Hazardous Waste Integrated Treatment Centre (Phase 1: Hejia) is the first treatment and disposal centre in China to integrate incineration, sterilization, PCT, secure landfill and resource recycling. Building on the successful foundation of the Phase 1 project, Veolia is operating the Binhai Industrial Hazardous Waste Disposal Centre (Phase 2) in the Nangang Industrial Zone to provide collection, transportation, storage, and treatment services for industrial toxic and hazardous solid waste.

- Collection, transportation, storage, and treatment services for industrial toxic and hazardous solid waste and hospital waste.
- Of the 46 categories of waste listed in the national hazardous waste list, the centre can treat 45 categories.
- Sales of resource recycling and comprehensive usage products.



### Treatment capacity:

Phase 1 Hejia: **67,700** tons/year

Phase 2 Binhai Hejia: **55,300** tons/year



## Cangzhou, Hebei Jihuan Hazardous Waste Treatment Plant

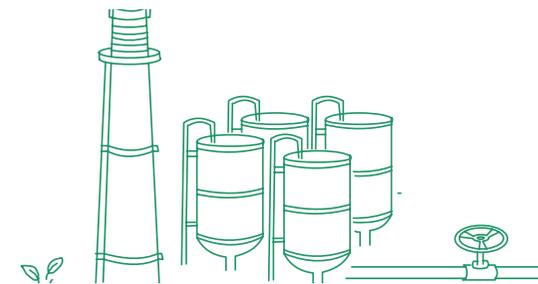
Cangzhou Jihuan Hazardous Waste Treatment Project was established in 2011. It is an integrated hazardous waste disposal facility and a hazardous waste disposal center in Hebei that treats hazardous waste from the whole province. Facilities include incineration, PCT and secure landfill.

### Design capacity:

CT: **10,103** tons/year

Incineration: **14,750** tons/year

Secure landfill: **60,100** tons/year



Waste treatment in  
**53,793** tons

## Xiangyang, Hubei Dongfeng Hazardous Waste Treatment & Disposal Center

The Hubei Xiangyang Hazardous Waste Treatment Plant (DongFeng) will provide incineration, PCT, recycling, stabilization/solidification, and secure landfill services to surrounding cities, including Shiyan, Xiangyang, Jingzhou, Yichang, Jingmen, Enshi, Tianmen, Qianjiang, Xiantao, Wuhan and Xiaogan.

### Design capacity:

PCT: **10,000** tons/year

Incineration: **30,000** tons/year

Secure landfill: **30,000** tons/year

Stabilization/solidification: **20,000** tons/year





### Changsha, Hunan Hanyang Hazardous Waste Treatment Facility

This integrated hazardous waste treatment centre provides hazardous waste treatment services for ten cities in north Hunan Province. It's one of 31 integrated hazardous waste treatment centers listed in the National Plan for the Construction of Hazardous and Medical Waste Disposal Facilities. The center integrates incineration, physical and chemical treatment, and landfill, and can treat 43 of the 46 categories of waste listed in the national hazardous waste list (2016).

#### Design capacity:

PPCT: **12,000** tons/year

Incineration: **33,000** tons/year

Secure landfill: **100,000** tons/year



### Jining, Shangdong Hazardous Waste Treatment Facility

Shangdong Jining Hazardous Waste Treatment Project provides collection, storage, and treatment of solid waste and hazardous waste and the recycling and utilization of resources. The project can treat 35 of the 46 categories of waste listed in the national hazardous waste list (2016).



#### Design capacity:

**40,000** tons/year, including:

PCT: **10,100** tons/year

Incineration: **30,000** tons/year



## LOCAL LOOPS OF ENERGY

### Harbin Southwest District Heating



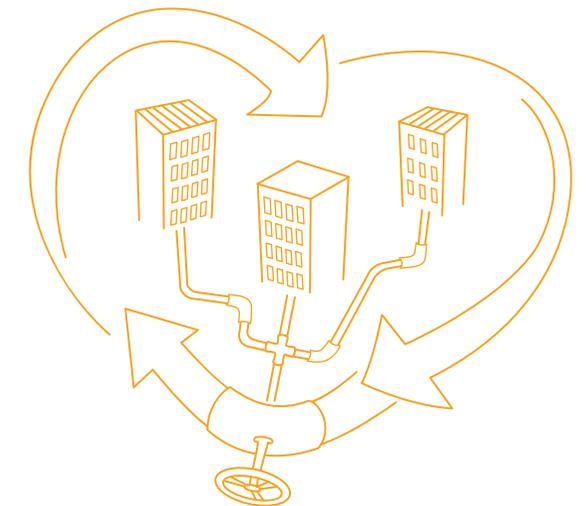
With solid experience and global expertise in the field of urban heating systems, Veolia won a bid from Harbin Municipality to build and operate the Harbin Southwest District Heating Network at the early construction stage in May 2007. Veolia is responsible for the investment, construction, operation and maintenance of the project, and provides 183 days of stable and high-quality heating services to the network's residents and institutions every winter.

The installed capacity, pipeline network and heating substations of the Harbin Southwest District Heating Network have since undergone gradual transformation and expansion during each heating season. Since the completion of the second phase of construction, the project has been upgraded to a combined heat and power heating system, which generates electricity while supplying heat, and transmits the electricity to the local grid, effectively improving energy efficiency.

Area served: **3,000** million m<sup>2</sup>

Installed heating capacity: **1,325** MW

Installed electricity capacity: **120** MW



# LOCAL LOOPS OF ENERGY

## Jiamusi Urban Heating Networks

Veolia took over the management and operation of the entire central urban heating network in Jiamusi in 2007, with a 25-year concession agreement granted by the Jiamusi Municipality. During the first year of the contract, Veolia rebuilt 11.6 km of the old pipeline, and replaced about 106 regional substations.

Renovation of the network in Jiamusi has been ongoing since 2007. To date, more than 85% of the city's total heating is provided by Combined Heat and Power (CHP).



Area served: **1,228** million m<sup>2</sup> (2018-2019)

In 2009, Veolia won the **Global District Energy Climate Award** issued by the IEA in Copenhagen.



## Kedong, Heilongjiang Biomass Heating Networks

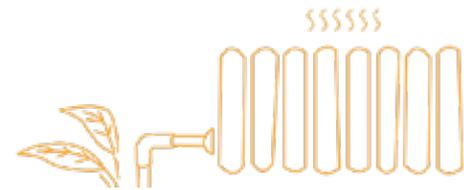
Veolia provides municipal heating services for Kedong County in Qiqihar, Heilongjiang Province, an area of approximately 2.4 million square metres.

After taking over the power plant, Veolia instituted upgrades that optimized the 3x58 MW hot water boiler, the 2x75 tons/hour steam boiler and 1x15 MW condensing steam turbine. It is expected to provide heating services for 5 million square metres of residents, companies and commercial entities.



While the plant is primarily coal-based at this time, Veolia also collects waste stalks from local corn and soybean plants as biomass to provide additional renewable energy solutions. The long-term plan is to transition the plant to 100% biomass energy production of green heat and electricity.

Area Served: **500** million m<sup>2</sup>



## Yibin, Sichuan Yangchun Industrial Biomass CHP

Through Yibin Yangchun, Veolia provides an uninterrupted and consistent supply of green energy with efficient emission standards to six industrial companies in Yangchun Industrial Park, Jiang'an County. Veolia uses local agricultural and forestry waste to produce the thermal power plant's 100% green and clean steam and electricity to meet the energy needs of the park.

Installed capacity:

**3 X 50** tons/hour industrial steam

**25** MW power generation



# ENERGY SERVICES TO BUILDINGS

## Veolia Energy Technology (VET) in Shanghai

Veolia Energy Technology (Shanghai) is a leading energy service provider in the field of electric power, building automation, building energy conservation and air quality.

In 2008, Veolia started its partnership with Shanghai Das Linkin Technology Development Co., Ltd., which has 20 years of experience in energy service and has been a subsidiary under Veolia's energy sector since 2018 and renamed to Veolia Energy Technology (Shanghai). The new company has since diversified its business, expanding from the traditional energy sector to the environmental sector covering air quality and other solutions.



### The company currently:

Serves over **1,000** households

Has completed projects spanning **4,000** million m<sup>2</sup>

Employs **320** persons



## VET in Shanghai: SMEDI

Located in Yangpu district, Shanghai Municipal Engineering Design Institute (SMEDI) is a first-class national engineering company, with a total construction area of 55,508 square metres, spanning 18 floors.

An air-source heat pump system located on the roof is used as the heating and cooling source for the building's air conditioning system. The air conditioning terminal also includes a fresh air intake, variable air volume system and fan coil units.

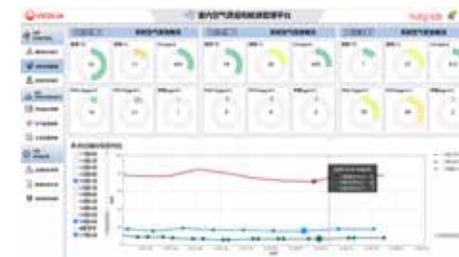
Veolia Energy Technology (Shanghai) provides tailor-made solutions for customers to optimize the air quality of their buildings. By controlling the environmental maintenance of the building, Veolia guarantees customers high indoor air quality and both economic and energy efficiency for the building itself.



**800** ppm of indoor carbon dioxide content

**35** µg/m<sup>3</sup> of indoor PM2.5

- 24-hour quantitative monitoring and management of indoor air quality
- Significant improvement in filtering fine particles and microorganisms to ensure indoor air quality meets sustainable health standards
- Optimized airflow to improve indoor environment comfort
- Home-grown IOT platform
- Real-time data monitoring (by the second)



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# ENERGY SERVICES TO BUILDINGS

## VET: Lilacs International Commercial Center

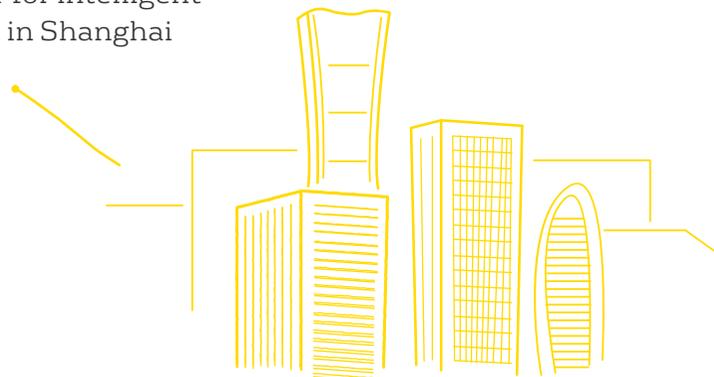
A landmark commercial complex project, Lilacs International Commercial Center is located at the centre point of five industrial clusters: Lujiazui, Jinqiao, Waigaoqiao, Zhangjiang and the Free Trade Zone.

As a luxurious 5A-plus level office building, its key tenant targets are financial and high-tech companies, which have high requirements for office environment and data security.

The customer-centric Veolia Energy Technology (Shanghai) provides one-stop services for the entire life-cycle of the energy system, from energy usage planning and engineering construction to operation management, optimization and improvement, ensuring a comfortable and safe working environment for our clients and optimization of operation and work efficiency.



Awarded the **Shenhui Award** the top honour for intelligent architecture in Shanghai



# ON-SITE SERVICES TO INDUSTRIAL CLIENTS

## Tianjin Soda Industrial Water Treatment

Tianjin Soda is a subsidiary of the Tianjin Bohai Chemical Industry Group and an important producer of chemical products in China, including butanol, octanol, acetic acid and soda ash. Veolia and Tianjin Soda signed an all-encompassing water service contract to provide demineralized water for chemical production boilers, as well as cooling water and sewage treatment (including chemical sewage treatment and domestic sewage treatment) for chemical production and power plants. The industrial water services are safe, reliable and efficient.



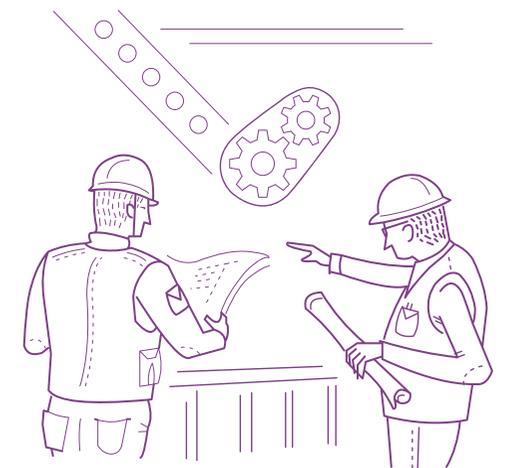
### Treatment capacity:

Cooled seawater: **720,000** m<sup>3</sup>/day

Cooled fresh water: **2,880,000** m<sup>3</sup>/day

Demineralized water: **48,000** m<sup>3</sup>/day

Treated wastewater: **23,000** m<sup>3</sup>/day



# ON-SITE SERVICES TO INDUSTRIAL CLIENTS

## Beijing Yanshan Sinopec Water Treatment

In 2006, Sinopec selected Veolia as its partner for a joint venture established to improve the operation and maintenance of its wastewater treatment system, as well as to improve the capacity and efficiency of Beijing Yanshan Petrochemical (BYPC) wastewater recycling. This cooperation with Veolia leverages the latter's outstanding technical expertise in the water industry, allowing Sinopec to focus on its core business.

In 2016, the scope of cooperation expanded to the entirety of BYPC's water cycle management (including cooling water, demineralized water, industrial water, drinking water, chilled water, and firefighting water) with the objective of upgrading wastewater treatment plants and optimizing energy management. It has reduced the site's water and carbon footprints and brought it into compliance with increasingly stringent emission standards.

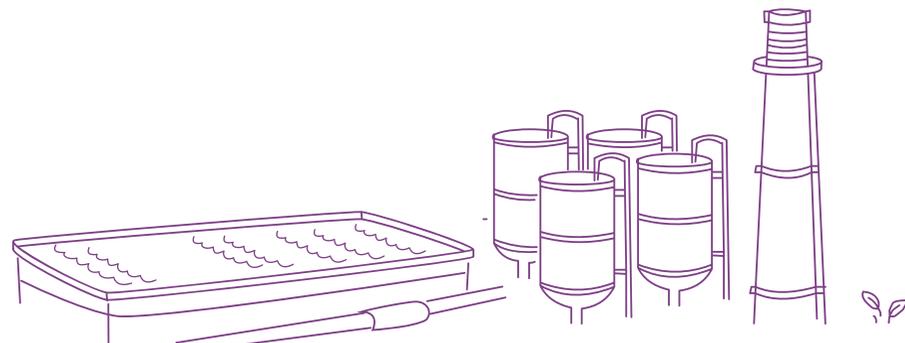


### Treatment capacity:

Industrial wastewater: **84,000** m<sup>3</sup>/day

Demineralized water: **74,000** m<sup>3</sup>/day

Recycled cooling water: **5,600,000** m<sup>3</sup>/day



## Yulin, Shaanxi Tian REC Wastewater Treatment

Shaanxi Non-Ferrous Tian Hong REC Silicon Materials Co., Ltd. ("Tian REC") is located in Yulin, Shaanxi Province, and is a joint venture between Shaanxi Non-Ferrous and REC, the largest silica manufacturer in the world. The venture's aim is to manufacture and supply high-grade silica products and silane gas to electronic industries. Veolia provided the design, build, operation and maintenance for a 140 m<sup>3</sup>/hour wastewater ZLD and salt recovery facility.

## Hancheng, Shaanxi Longmen Zero-Emission Coal Chemistry Wastewater Treatment

The Shaanxi Longmen Coal Chemical Industry Company, located in Longmen Industrial Zone, Hancheng, Shaanxi, specializes in producing coal coking and coal chemical products, with a product range that includes coke, methanol and LNG. Veolia designed, built and operates a zero-emission facility for the client, and has provided 15 years of operational services.

The facility collects wastewater from the entire Longmen Coal Chemical Plant, including coking wastewater, demineralized water, and cooling circulating sewage. All the wastewater is treated and reused in the client's production units.

### Design capacity:

**450** m<sup>3</sup>/hour



# Achieving a better and

Veolia was one of the first French companies to express its purpose in a complete text that is the outcome of numerous consultations and is supported at the highest level in the company. The Group sees this purpose as a way of implementing its broad vision of the company and demonstrating its usefulness for all stakeholders, beyond simply creating value for shareholders.



Veolia's purpose is to contribute to human progress by firmly committing to the Sustainable Development Goals set by the UN to achieve a better and more sustainable future for all. It is with this aim in mind that Veolia sets itself the task of "Resourcing the world" through its environmental services business.

At Veolia, we are convinced that continuing human development is only possible if economic, social and environmental issues are addressed as an indivisible whole. This belief is embedded in the history of the company, which as soon as it was created in 1853, showed the way by making access to drinking water an essential element of public health and quality of life.

In the conduct of our current businesses in water, waste and energy, we provide our public and private customers worldwide with solutions that facilitate access to essential services and natural resources, and that efficiently conserve, use and recycle those natural resources. Improvement of our environmental footprint and that of our customers is central to our business and its economic model.

# more sustainable future for all

- Veolia's Purpose

Far from being mere words, the purpose comes with a management method that will make it possible to implement the multifaceted approach to the Group's performance and to share the value created. The purpose is central to Veolia's policy and fully integrates the new Impact 2023 strategic program.

We are a company that is both local and global with a high level of technical know-how and labor, and which commits for long periods of time. We guarantee long-term results for our customers by leveraging our long experience, the quality of our services and our high capacity for innovation.

We are a working community where, in addition to an income and respect for their health and safety, everyone can find a sense of purpose in what they do, commitment to rewarding collective action and personal fulfillment.

Through training, Veolia ensures that its employees, the vast majority of whom are manual workers and technicians, develop their skills. The company relies on their responsibility and autonomy at all levels and in all countries, and promotes professional equality between men and women.

Veolia also promotes, particularly on staff representative bodies, social dialogue, which encourages employees to adopt our collective project as their own.

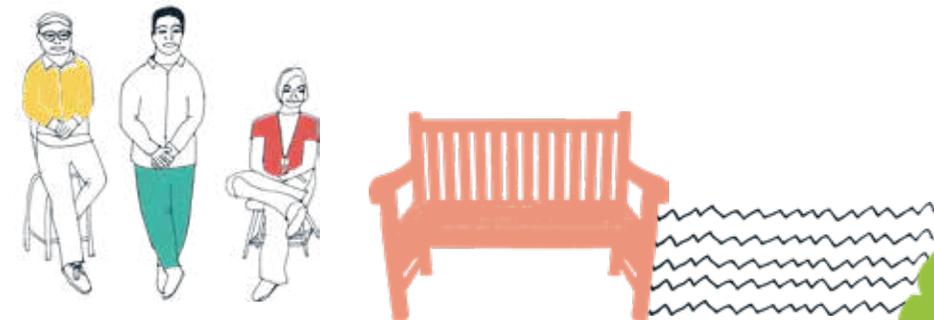
Wherever it operates, Veolia complies with applicable laws and regulations. It also applies widely-distributed ethical rules consistent with its values of responsibility, community spirit, respect, innovation and customer focus.

**"Veolia's Purpose is not just a slogan. It is expressed in a complete text."**

Antoine Frérot  
Chairman and CEO of Veolia

Veolia's prosperity is founded upon its usefulness to all its stakeholders in the various regions where it operates – whether customers, shareholders, employees, suppliers, current populations or future generations. Its performance must therefore be assessed in various dimensions corresponding to those different communities concerned. The company pays the same degree of attention and requires the same high standards in each of these dimensions.

In this way, Veolia prepares for the future, protecting the environment and responding to humanity's vital needs.



# Committed to Multifaceted Performance



- 1. Our stakeholders
- 2. Our performance
- 3. Our commitments
- 4. Our goals

## Veolia, engaged in the transformations needed to achieve the SDGs

Veolia is engaged, to a greater or lesser extent, in the implementation of all 17 SDGs. Through its water, waste and energy businesses, Veolia provides solutions aimed at ensuring access for all to essential services, reducing the company's and its clients' ecological footprint, and contributing to the world's transitions. Daily, Veolia contributes to the SDGs, with particular emphasis on the 13 that relate more specifically to its purpose:

### UN Sustainable Development Goals (SDGs)

Veolia plays a part in all 17 SDGs at different levels and has a direct impact in 13 of them.

<b>1 No poverty</b>	<b>10 Reduced inequalities</b>
<b>2 Zero hunger</b>	<b>11 Sustainable cities and communities</b>
<b>3 Good health and well-being</b>	<b>12 Responsible consumption and production</b>
<b>4 Quality education</b>	<b>13 Climate action</b>
<b>5 Gender equality</b>	<b>14 Life below water</b>
<b>6 Clean water and sanitation</b>	<b>15 Life on land</b>
<b>7 Affordable and clean energy</b>	<b>16 Peace, justice and strong institutions</b>
<b>8 Decent work and economic growth</b>	<b>17 Partnerships for the goals</b>
<b>9 Industry, innovation and infrastructure</b>	

#### 9 goals related to its businesses



#### 3 goals linked to its organizational priorities as a responsible company



#### 1 key goal as a driver to achieve the SDGs



As part of its latest strategic program – Impact 2023 (see p. 16) – Veolia is developing new economic activities based on six themes: **health and new pollutants, adaptation to climate change, new loops for materials, food chain, new energy services and new digital offers**. This approach significantly reinforces the Group's contribution to the SDGs and to five of the SDSN's six broad transformations.

(1) SDSN (Sustainable Development Solutions Network) refers to a network of scientists and experts working on practical solutions to achieve the SDGs.  
 (2) Six broad transformations: Education, gender and inequality; Health, well-being and demography; Energy, decarbonization and sustainable industry; Sustainable food, land, water, and oceans; Sustainable cities and communities; Digital revolution for sustainable development. See more detail on page 8 of "Integrated Report 2019-2020".

	INDICATOR	2023 TARGET
<b>Economic and financial performance</b>	<b>Revenue growth</b> Annual growth in published revenue	Annual target
	<b>Profitability of activities</b> Current net income – Group share	€1 billion
	<b>Return on capital employed</b> Post-tax ROCE	Annual target
	<b>Investment capacity</b> Free cash flow (before discretionary investment)	Annual target
<b>Human resources performance</b>	<b>Employee commitment</b> Commitment rate of employees measured by an independent survey	≥80%
	<b>Workplace safety</b> Injury frequency rate	5
	<b>Employee training and employability</b> Average number of training hours per employee per year	23 h
	<b>Diversity</b> Proportion of women appointed among the top 500 Group executives during the period 2020-2023	50% from 2020 to 2023
<b>Environmental performance</b>	<b>Combating climate change</b> • Reduction in GHG emissions: progress with the investment plan to eliminate coal in Europe by 2030 • Avoided emissions: annual contribution to avoided GHG emissions (assessed with regard to a reference scenario)	30% of investment to be achieved <sup>(1)</sup> 15 million metric tons of CO <sub>2</sub> eq.
	<b>Circular economy: plastic recycling</b> Volume of transformed plastic, in metric tons of products leaving plastic transformation plants	610 thousand metric tons
	<b>Protecting natural environments and biodiversity</b> Rate of progress with action plans aimed at improving the impact on the natural environment and biodiversity at sensitive sites	75%
	<b>Sustainable management of water resources</b> Efficiency of drinking water networks <sup>(2)</sup> (volume of drinking water consumed/volume of drinking water produced)	>75%
<b>Commercial performance</b>	<b>Customer and consumer satisfaction</b> Customer satisfaction rate calculated using the Net Promoter Score methodology	Target defined in 2020 <sup>(3)</sup>
	<b>Development of innovative solutions</b> Number of innovations included in at least 10 contracts signed by the Group	Target defined in 2020 <sup>(3)</sup>
	<b>Hazardous waste treatment and recovery</b> Consolidated revenue of the "Liquid and hazardous waste treatment and recovery" segment	>€4 billion
<b>Corporate social performance</b>	<b>Job and wealth creation in the regions</b> Socio-economic footprint of Veolia's activities in the countries where the Group operates, with regard to direct and indirect jobs supported and wealth created	Annual assessment from 2020 of Veolia's impact in 45 countries
	<b>Ethics and compliance</b> Percentage of positive answers to the commitment survey question "Are Veolia's values and ethics applied in my entity"	To be determined for a larger audience in 2020
	<b>Access to essential services (water and sanitation)</b> Number of inhabitants benefiting from inclusive solutions to access water or sanitation services under Veolia contracts	+12% at constant scope

# Impact 2023: four strategic moves to support ecological transformation

With Impact 2023, Veolia is setting itself the ambition of being the benchmark company for ecological transformation. It is more than a multi-year plan – it is an enterprise project that traces a clear and ambitious route. It translates Veolia's commitment to making a positive impact for the planet and all the company's stakeholders.

**Our goal is to become the benchmark company for ecological transformation**

## 1. Commit to multifaceted performance

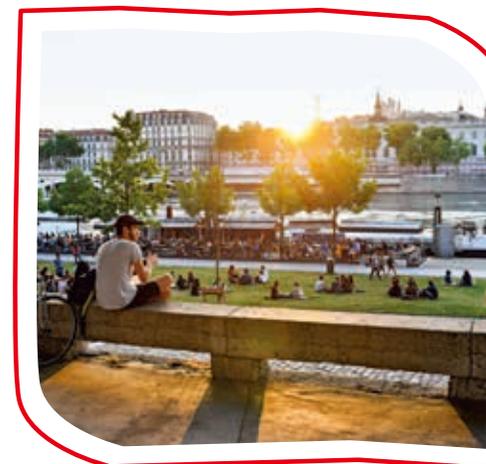
Veolia seeks to focus equally on the various types of performance, all of which complement one another and form a virtuous circle.

The Group has committed to 18 key performance indicators (see p. 49), which cover the 5 types of performance: economic and financial, commercial, human resources, social, and environmental. Fulfillment of the objectives, which will be audited annually by an independent organization, will provide a basis for the variable remuneration awarded to Veolia senior executives.

## 2. Stepping up the pace of growth of our most complex operations, where Veolia's differentiating expertise represents high value added

Three main categories of business are involved:

- **prevention and clean-up of toxic pollution**, such as hazardous waste and industrial process water treatment and soil decontamination;
- **management of the use of resources and combating climate imbalance**, including services to enhance energy efficiency of industries and buildings, plastics recycling, refuse-derived fuel production, biodegradable waste recovery, and industrial ecology services such as circular economy loops and pooling utilities on industrial parks;
- **contributions to solutions to adapt to climate change**, such as reusing wastewater and seawater desalination.



(1) Total investment to eliminate coal in Europe by 2030 have been estimated at €1.2 billion.  
(2) For networks serving over 50,000 inhabitants.  
(3) Reference not available or being determined, the 2023 target will be defined during 2020.

### 3. Reinforce and reinvent our core business activities to enhance their impact and performance

**Water:** enrich our water and wastewater services, including innovative sludge management solutions and inclusive solutions to improve access to water, and reinvent our way of working with stakeholders, such as governance and consumer relations.

**Waste:** transform the collection of non-hazardous industrial and commercial waste, for example through new digital services, and a better-scaled pricing policy established according to the quality of raw materials.

**Energy:** modernize and diversify our energy grid business by transforming coal-powered heating networks through the use of green energy, deploying new services for electricity grids and developing mini-heating or cooling networks.



### 4. Imagine and develop innovative solutions to anticipate and satisfy the essential needs of tomorrow

These solutions principally concern:

- **health and new pollutants:** e.g., indoor air quality, treating micropollutants found in water and solutions for off-network access to drinking water and sanitation;

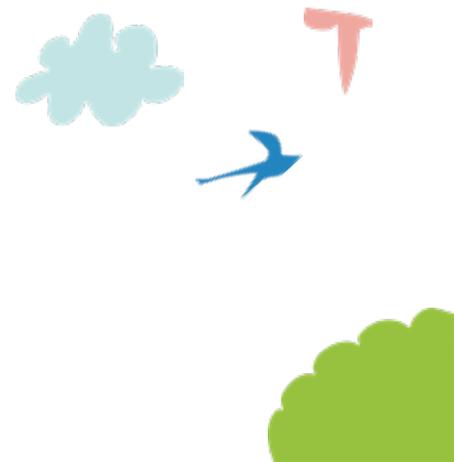
- **new material loops:** e.g., recycle electric vehicle batteries and solar panels, capture and use CO<sub>2</sub>, and pursue eco-design with industrial partners;

- **food chain:** e.g., bio-conversion of organic waste into organic fertilizers or animal proteins, development of ecological aquaculture and urban farming solutions;

- **adapt to the consequences of the climate imbalance:** e.g., manage crises, prevent rising water levels, droughts and flooding, reuse water, and develop urban cooling islands;

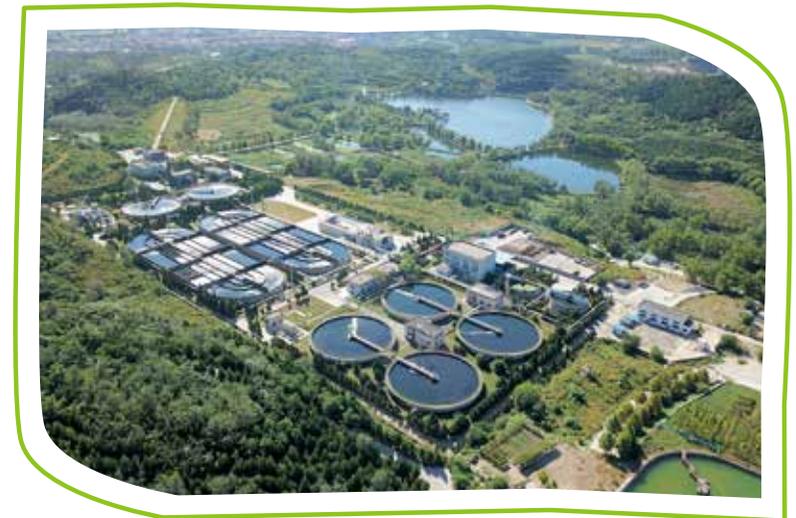
- **new energy services:** e.g., improve electric flexibility and demand management, including virtual power plants and energy storage, and microgrids;

- **new digital services:** develop control centers for water treatment plants and distribution networks, interactive web-based platform for waste collection and recovery, and artificial intelligence applied to waste sorting, etc.



## Our actions in China

### Achieving environmental performance Protecting the natural environment and biodiversity



### Yanshan Niukouyu Wetland Park

The Niukouyu Wetland Park is a quiet but vibrant wetland park just 2 km west of Fangshan District, Beijing. This site is located at a hilly area in the junction of the Taihang Mountains and the North China Plain, boasting stunning scenery, clear water pools, and increasingly rare biodiversity in the city – 144 species of bird, more than 10 species of butterfly, 28 species of dragonfly, and over 8 species of fish have been spotted or live here. It attracts more than 1,500 tourists every day and has become a well-known leisure destination for locals.

In such a beautiful environment, few could imagine that the Niukouyu Wetland Park was originally an abandoned oxidation pond used for sewage treatment at Yanshan Petrochemical. In June 2017, led by Yanshan Petrochemical, Yanshan Veolia carried out a comprehensive rehabilitation for the eight-hectare pond. In November of that year, the first phase of the project to offer an integrated wetland park facility for leisure and entertainment was completed, and opened to public visits.

## MYSTERIOUS WATER SOURCE

To the surprise of many, the water of Niukouyu Wetland Park does not come from a natural source, but from the wastewater discharged from industrial uses. As a major source of pollution, industrial wastewater is often dismissed in practical use. However, backed by solid technological advancement, Veolia makes sure that Yanshan Petrochemical's processed industrial wastewater can meet the world's most stringent environmental standards. After multiple purification steps, the industrial wastewater achieves an emission index lower than COD30. Meanwhile, the wetland uses the "natural treatment", planting different types of highly purifying plants to effectively remove residual pollutants such as COD and NH3 from the water. This concept not only guarantees water quality, but also provides a rich ecological environment and natural habitat for a variety of birds and other species.

## DESIGN CONCEPT

The wetland park comprises four functional areas, namely the wetland area, recreation area, cruise area and cultural exhibition area. The design of the wetland area is of utmost importance, and needs to take into account three aspects: water resources, vegetation design and biodiversity protection. In terms of water resources, the construction area of the wetland had to be determined by available water inflow in the area (1,600 m<sup>3</sup> per hour on average). The biggest challenge laid in finding the minimum amount of water retained by aquatic plants to provide sufficient water circulation, to prevent algae blooms which would affect the balance of vegetation growth.

Since the wetland park uses industrial wastewater as a water source, plants in the park also need to have high purification and treatment capabilities. By using different bank slopes, ponds and willow trees, a differentiated growth environment was created for the plants, while also delivering a pleasant landscape and an agreeable habitat for wild animals.



## A SIGNATURE OF ENVIRONMENTAL PROTECTION

The Niukouyu Wetland Park, as a value-added part of Yanshan Veolia's industrial water treatment service, has improved the environment and quality of life for local residents, while restoring the damaged ecosystem. In five months, we completely rehabilitated an oxidation pond that was overgrown with weeds and dredged 16,000 m<sup>3</sup> of silt, and used recycled fender woods to build the park's trestle bridge.

In September 2020, after three months of intense design and construction, Yanshan Veolia completed the upgrade of the cultural exhibition area and officially opened it to visitors. The renovated exhibition hall is an immersive ecological wetland environment experience space, using sight and sound to enrich the tourist experience and convey information, fully presenting the essence of the Niukouyu Wetland Park.

A sandbox in the exhibition hall showcases the overall layout of the Niukouyu Wetland Park, leading to a five-part tour: (in a clockwise direction) "Into Niukouyu", "The Niukouyu Wetland Park Biodiversity Integrated Reality Show", "The Eye of the Exhibition Hall", "Birds' Land" and "Interactive Enquiry Devices and Eco Protection Concept Showcase".

"Into Niukouyu" uses a timeline to depict the development and environmental protection achievements of the Niukouyu Wetland Park.

"The Niukouyu Wetland Park Biodiversity Integrated Reality Show" showcases the ecosystem and biodiversity in the wetland park using a combination of paintings, green vegetation, bird and insect specimens, and topographical sections.

"The Eye of the Exhibition Hall" features a dynamic visual exhibition of the wetland park's amazing landscape in different seasons and at different periods of the day using a gigantic LED screen and multi-media effects.

"Birds' Land" showcases the wide variety of wild birds in the wetland park through specimens and graphic illustrations.

"Interactive Enquiry Devices and Eco Protection Concept Showcase" uses lightboxes and LED screens, together with images and texts, to highlight Yanshan Veolia's environmental principle ("Green mountains and clean water are of the greatest value") and its successful practice in the treatment of industrial wastewater.

Industry and environment blend perfectly in the Niukouyu Wetland Park. This is achieved via stringent and comprehensive water treatment technology, as well as the company's persistent implementation of its environmental ideals. The park is open daily for visits, and has developed an app for self-guided tours. In addition to providing narration for visitors, the app also aims to raise public awareness of environmental protection and resource conservation.



Mobile app for Niukouyu Wetland Park tours

# ICIAct Reporting System **STAY ALERT, DON'T GET HUR I SEE, I ACT.**

Veolia has long been focused on the health and safety of its working environment. The well-being of every employee is a top priority in project execution.

The ICIAct Reporting System was developed with the aim of preventing accidents. The supervisor or manager in charge of a site must take action on each report submitted, helping to systematically eliminate hidden dangers in the workplace and more effectively avoid accidents. The system leverages the user-friendly WeChat app, which also encourages more people to participate in the identification and reporting of safety hazards, including regular operators and visitors.



The goal is to enable everyone to identify potential hazards, unsafe conditions or unsafe behaviours anytime and anywhere, report them in a timely manner, and fix them before accidents or injuries happen. All employees, from the general manager to the office cleaners, should use it.

The screenshot shows the '建立新报告' (Create New Report) screen. It includes a '点击拍照' (Click to take photo) button, a '项目' (Project) dropdown menu, a '描述' (Description) text input field, a '建议' (Suggestion) text input field, a '危害类别' (Hazard Category) dropdown menu, a '报告类别' (Report Category) dropdown menu, and fields for '您的姓名' (Your Name) and '您的电邮' (Your Email). An orange '提交报告' (Submit Report) button is at the bottom.

Scan the QR code to download the ICIAct app, then follow these three steps:

- Use the app to scan the QR code at a project site to start a report if you see a hazard or unsafe conditions.
- Take photos of the issue to add to your report.
- Select the category and/or situation and upload your photos to complete and submit the report.



The ICIAct Reporting System Wechat QR code



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# Resourcing the world

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