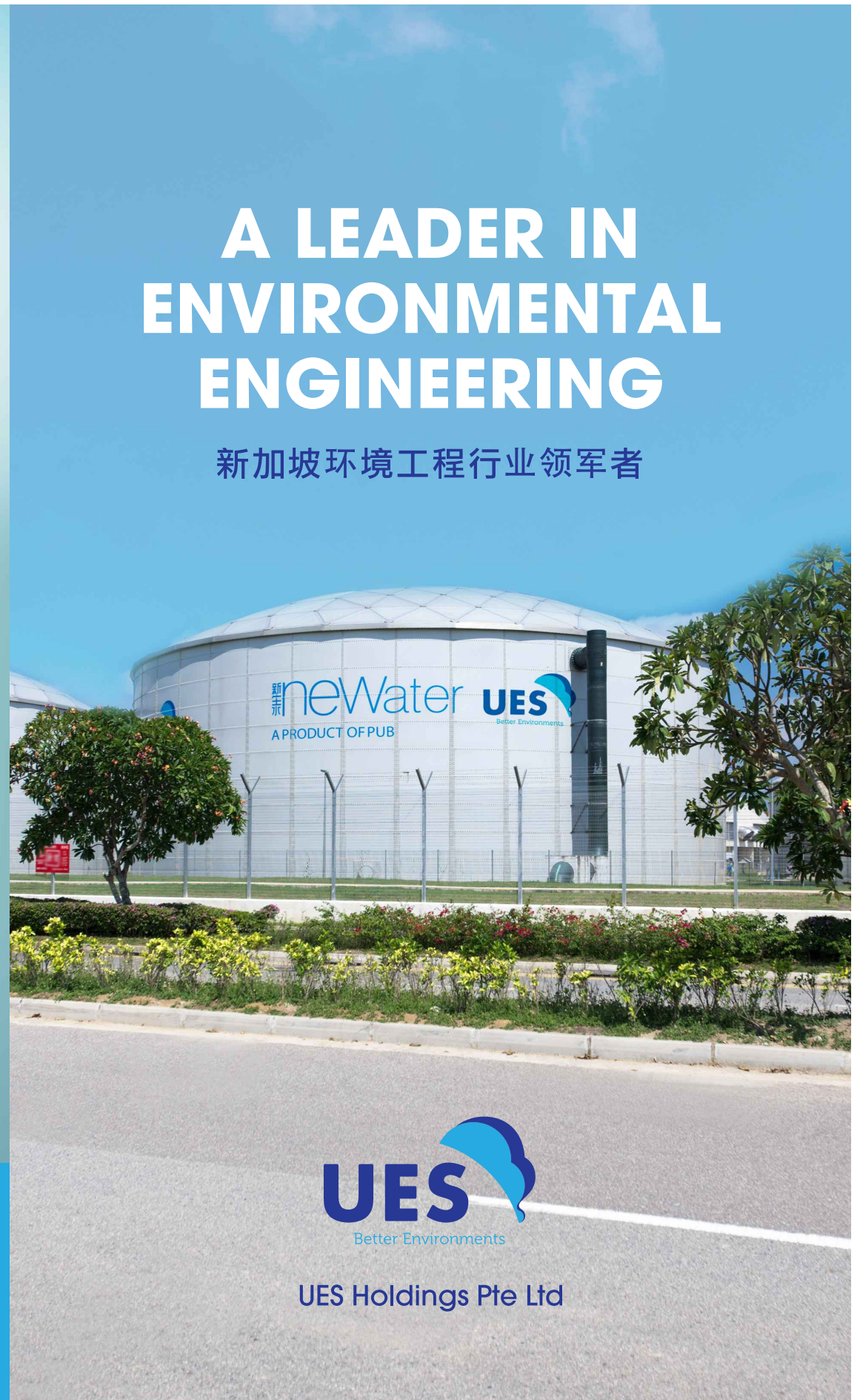


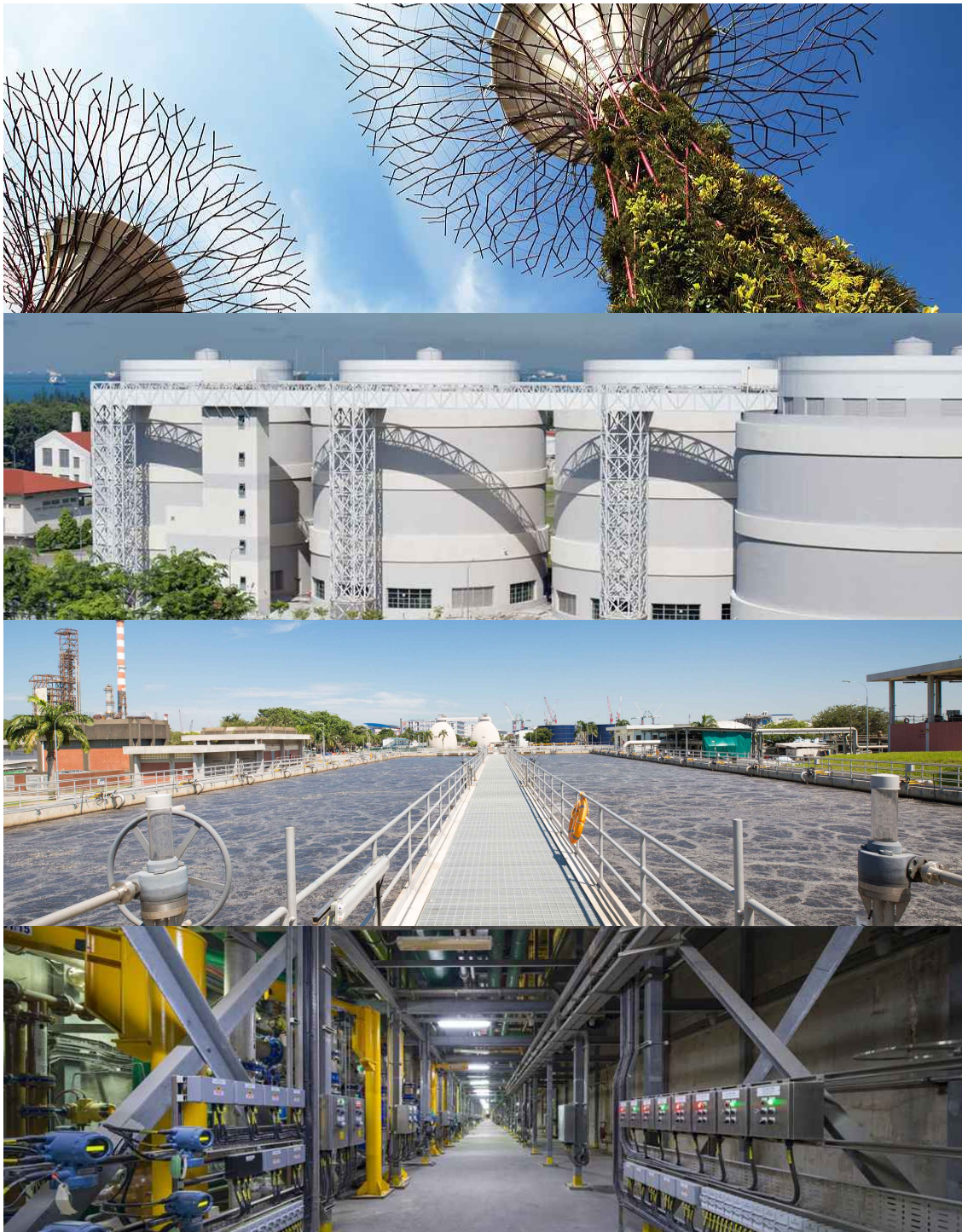


BACK COVER (Pg 40)



FRONT COVER (Pg 1)





**UES Holdings Pte Ltd (“UESH”)** is one of Singapore’s leading environmental engineering companies. Its roots can be traced back to the 1930s when it was the contractor to many regional governments for the construction of waterworks and other large infrastructure.

Over the past decade, UESH has successfully completed more than 50 major projects worth over S\$1 billion. Significant projects in Singapore include Second NEWater Plant, Liquid Module 1, and Odour Control System at Changi Water Reclamation Plant; Marina Reservoir Recirculation Scheme at Chestnut Avenue Waterworks; Provision of Life Support Systems for Marine Life Park for Resorts World Sentosa. Notable on-going projects include Phase 4 Expansion of Jurong Water Reclamation Plant; Process Upgrading and Equipment Replacement at Chestnut Avenue Waterworks.

Currently, UESH is capable of providing **technical and engineering solutions for environmental projects** in the areas of **Water, Wastewater, Air and Renewable Energy**. UESH is able to undertake a wide range of projects in Singapore and Asia on an **EPC** (Engineering, Procurement and Construction), **BOT** (Build-Operate-Transfer), **DBO** (Design-Build-Operate), **DBOO** (Design-Build-Own-Operate), and **DB** (Design-Build) basis, in the following areas:

- Municipal sewerage and industrial wastewater treatment
- NEWater production
- Water recycling and desalination
- Surface and groundwater treatment for potable use
- Industrial and process water supply
- Sludge treatment and disposal
- Air pollution and Odour control
- Renewable energy
- M&E building services

UESH has also been a Founding Sponsor of Singapore International Water Week (SIWW) since it started in 2008. SIWW is a global platform for environmental and water industry players, with SWA serving as a network link, to share and co-create innovative water solutions, share best practices, showcase the latest technologies and tap business opportunities.

Headquartered in Singapore, UESH has market presence in China, Cambodia, Indonesia, Myanmar and Vietnam.



# Message from Executive Chairman and CEO

UES Holdings Pte Ltd (UESH) is an environmental engineering company with a hundred years of history. In the past, we keep putting our efforts in investment, construction, operation and management in municipal water treatment and supply, wastewater treatment, renewable energy and waste management, and M&E works. Our clients, our business partners and our employees all together witness the growing steps of the company.



**Michelle Liu**  
*Executive Chairman and CEO*

A well regulated market order and business environment is of necessity for commercial activities. Following the rules and strengthening the self-disciplines, UESH focus on technologies' development driven by investment and constantly provide our business partners with cost effective, practical and novel solutions so as to win out in the competitive market.

It's never been easy to duplicate the experience and the reputation the company has gained in the past which positions us one step ahead in the next phase expansion and development. Especially the successful commercial operation of Changi Newater Plant further in the year end of 2016 established a solid milestone for UESH in Singapore.

Meanwhile, we are looking forward to the opportunities for regional development brought by "The Belt and Road" initiative. We are in a good shape ready to fly off with the opportunities and contribute further to the infrastructure development in Singapore and China.



*Management Meeting Chaired by Co-CEO, Raymond Tan*



## Since 1930s...

Contractor to many regional governments and municipalities for construction of waterworks, such as Thomson Road Waterworks in Singapore and Ampang Waterworks in Selangor



Completed construction project at Institute of Health and National Dental Centre



2007

Completed Contract C3C Liquid Module 1 project at Changi Water Reclamation Plant, one of the largest in the world



2009

Completed waste water treatment plant project in Hengyang City, Hunan Province



1999

Completed seawater cooling systems project at Changi Naval Base



1995

Completed Bandar Sri Begawan Water Supply Stage 5 Contract 51 project at Bukit Barun Treatment Works Extension, Brunei



2010

Completed integrated M&E engineering works project at Hanh Phuc International Women & Children Hospital, our first project in Vietnam



Completed electrical services project at Marina Bay Sands

2008

Completed construction of basement project at Fusionopolis and one-north MRT Stations



2011

Completed integrated M&E engineering works project at the mixed-use development at one-north comprising The Rochester condominium, Park Avenue Rochester hotel and serviced apartments, as well as Rochester Mall



Completed co-generation systems project (biomass) at Gardens by the Bay

2012

Completed life support systems project at Marine Life Park, Resorts World Sentosa



Completed integrated M&E engineering works project at UE BizHub EAST

2013

Awarded three projects with a total contract value of over \$100 million: relocation of substation and pumphouse at Singapore Changi Airport; construction of Stamford Detention Tank and ancillary facilities; as well as upgrading works at Kranji II Pumping Station



2014

Completed expansion to digestors and effluent pumping station project at Changi Water Reclamation Plant



2015

Awarded two projects with a total contract value of over \$100 million: Phase 4 expansion to Jurong Water Reclamation Plant; as well as upgrading process and replacement of equipment at Chestnut Avenue Waterworks



2016

Separated from United Engineers Limited and underwent rebranding

Named Company of the Year for Leadership (M&E Engineering Services/South East Asia) at IAIR Awards

Completed Design, Build, Own and Operate of second NEWater plant project at Changi Water Reclamation Plant and won Water Deal of the Year at Global Water Awards for the project



SME100 Awards

Founding sponsor for Singapore International Water Week







## 一站式服务链 One-stop service chain

### ANALYSE Preliminary & Conceptual 分析 准备与概念

- Trend spotting and market analysis
- Sourcing and identifying opportunities
- Business development and marketing
- Networking
- 动向发现与市场分析
- 寻找并确定机会
- 商务拓展与市场销售
- 建立关系网络

### DESIGN Packaging & Technology 设计 包装与技术

- Scoping and feasibility study Technology selection
- Strategic alliances and partnerships
- Basic engineering design
- Deal structuring
- 调查与可行性分析
- 技术选择
- 战略联盟与伙伴关系
- 工程基本设计
- 交易方案设计

### DEVELOP Invest & Structuring 发展 投资与建设

- Invest and develop projects
- 投资与发展项目

### BUILD Technical & Construction 建设 工艺与建造

- Detailed engineering design
- Engineering services
- Procurement
- Construction
- Equipment supply
- 详细工程设计
- 工程技术服务
- 采购
- 建造
- 设备共给

### MANAGE Operation & Management 管理 运行与维护

- Services management
- Operations
- Maintenance
- 服务管理
- 运行
- 维护



## EPC, DBO, DBOO, BOT, DB

### WATER & AIR

- Seawater Desalination (SWRO)
- Brackish water reverse osmosis (BWRO)
- NEWater production
- Municipal sewage & industrial wastewater treatment
- Aquaculture water treatment
- Air pollution control
- Treatment of surface and underground water for potable use
- Rainwater harvesting and treatment
- Industrial and process water supply water recovery and recycling
- Compact water purification systems
- Odour treatment

### WASTE & RENEWABLE ENERGY

- Production of biofuels from municipal and agriculture waste
- Biogas generation through anaerobic digestion (AD)
- Sludge treatment and disposal
- Waste manifest/ tracking system for medical waste
- Conversion of biomass into energy
- Ultrasonic sludge disintegration
- Collection services and central disposal facilities for medical waste
- Thermal hydrolysis of sludge

### M&E ENGINEERING

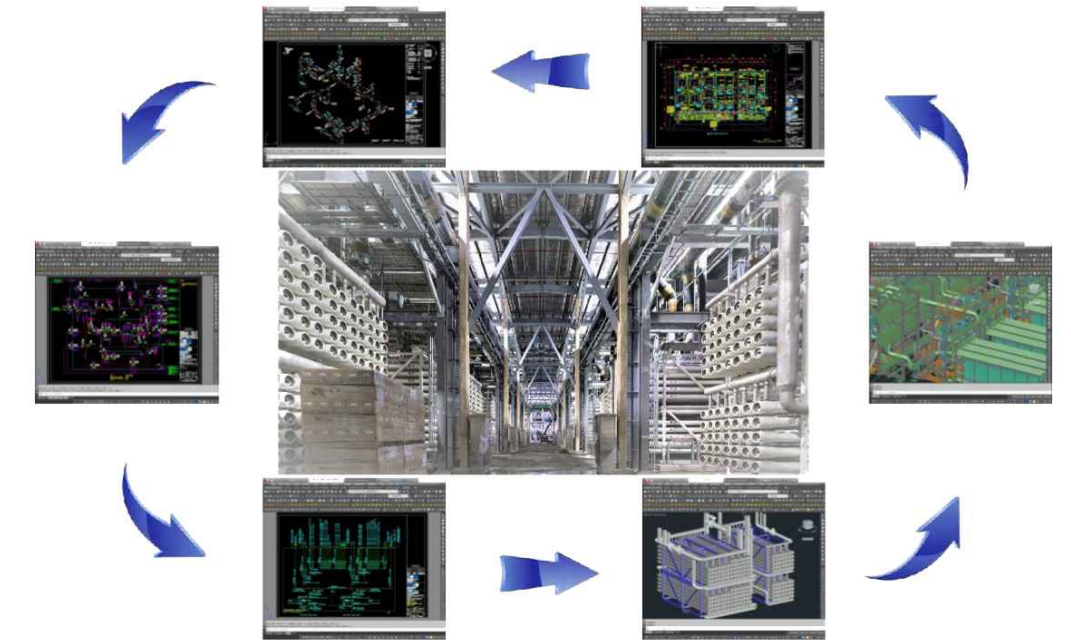
Fire protection (FP) systems

Security and closed-circuit television (CCTV) systems

**BUILDING MANAGEMENT SYSTEMS (BMS)**

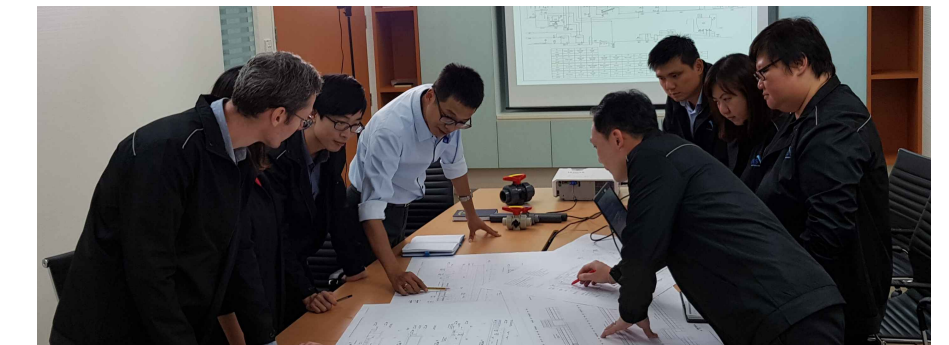
Air-conditioning and mechanical ventilation (ACMV) systems

Telecommunications and public address (PA) systems



UESH has put in great efforts in developing the in-house design and engineering capability. Investing on software, training and people. Value engineering is always in our mind to benefit the client and differentiates us from others. Nowadays, UESH has the licences for process design simulation software, plant 3-D design software, etc. Most importantly, the Company has the experienced people who know how to use them, judge the results and link them with real happenings.

This capability greatly assists UESH to provide the workable solution and execute the project with right purchase, in proper sequence, at competitive cost and within expected schedule.



VALUE CHAIN

BUSINESS MODEL

DESIGN & VALUE ENGINEERING





OUR PEOPLE





Project name: Second Changi NEWater Plant (CNP2)  
 Date of completion: 2016  
 Country: Singapore



*“The successful experience of Changi NEWater Plant proves UESH’s capability for mega size municipal projects in design, construction, finance and operation to provide the water to the public with advanced technology at an attractive price. ”*

*Raymond Tan, Co-CEO, UES Holdings Pte Ltd*

The Public Utilities Board (PUB), Singapore, proposed to develop a **Second Changi NEWater Plant** located within the existing Changi Water Reclamation Plant (CWRP) in a business model of Design-Business-Own-Operate (DBOO) contract. The plant was designed to treat the second effluent from CWRP to CNP2 and dispatch it at all flows between minimum capacity and warranted capacity (50 MIGD) to the NEWater Distribution System. UESH together with its Consortium Partner won the job with most attractive technical and commercial proposal.

The project was completed ahead of schedule with full compliance to PUB’s requirement. The plant commenced commercial operation from 1st December 2016 and onwards is producing and supplying NEWater at 60%-100% of warranted capacity to the Network continuously.







Project name: Chestnut Avenue Waterworks (CAWW)  
 Date of completion: 2020  
 Country: Singapore



*“It’s never been easy to carry out heavy works in a live plant. The execution of CAWW upgrading works proves UESH’s project management capabilities of constructing heavy civil and structural, mechanical, electrical, instrumentation and control, and building service works while minimizing the impact to the 24-hour operating live plant. ”*

*Francis Lim, General Manager, UES Holdings Pte Ltd*

**Chestnut Avenue Waterworks (CAWW)** is one of the largest potable water plant in Singapore. It produces up to 120 MIGD drinking water from the reservoir by using two parallel streams. One is conventional coagulation-flocculation, clarification and sand filtration, the other submerged membrane. UESH was engaged by Public Utilities Board (PUB) for the recent upgrading works of implementing the Chemical Storage and Dosing Systems, Ozone Generation and Contactors and Biological Activated Carbon Filters. The biggest challenges facing in this project is the construction in a live plant with minimum interruption within very limited time slot granted.

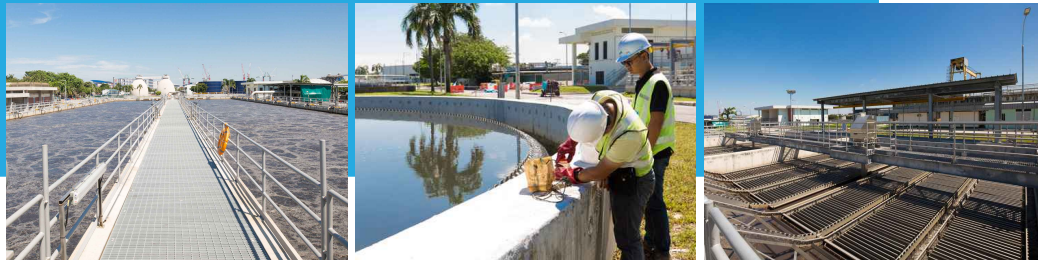
The phase 1 of the works was successfully completed in April 2017 and handed over to PUB operators for continuous operation. UESH project team is fully geared up to the final completion of the whole works.







**Project name:** Jurong Water Reclamation Plant (JWRP)  
**Date of completion:** 2018  
**Country:** Singapore



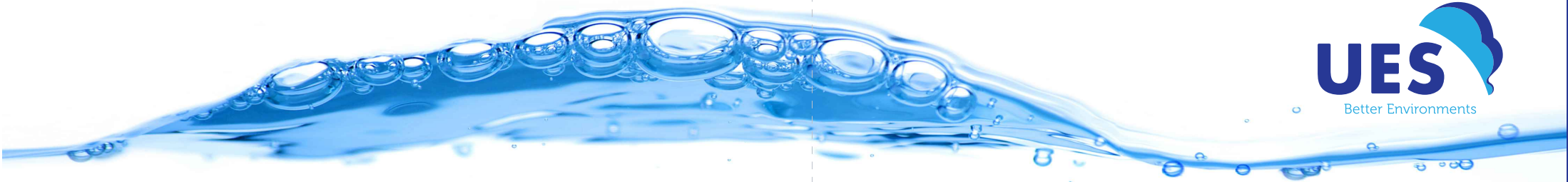
This project seeks to increase the treatment capacity of existing Jurong Water Reclamation Plant (JWRP). A new treatment stream was designed and built to cope for an average of 75,000 m<sup>3</sup>/day industrial sewage treatment. Conventional Screen-Grit Removal-PST-Anoxic-Oxic-FST process was adopted. The unpleasant smell was centralized and treated by the odour control facilities. The plant has successfully passed testing and commissioning and plant proving on May 2018 and is now serving the public.



**Project name:** Stamford Detention Tank (SDT)  
**Date of completion:** 2018  
**Country:** Singapore



The Stamford Detention Tank project is part of PUB's efforts to increase the flood protection capability of the Stamford Canal Catchment which runs through the Orchard Road Shopping Belt. It is a very challenging project as the tank had to be constructed 30 meters below the ground in the Central area of Singapore with a detention volume of 38,000 m<sup>3</sup>. With the tremendous efforts UESH put in, a tank of soccer-field size and 27-meters height was completed in the year end of 2017. After the final connection with the influent pipe, the Stamford Detention Tank will reassure Orchard-Road merchants a peaceful mind under heavy storming.





# WATER

*UESH has more than 75 years of proven track record in water-related projects with origins back in the 1930s where its predecessors were the contractor to many regional governments for the construction of waterworks and other large infrastructure.*



**Project name:**

Upgrading of M&E equipment and laying of pipeline at Tembusu Pumping Station

**Date of completion:** 2018

**Country:** Singapore



**Project name:**

Provision of sludge pretreatment facility at Ulu Pandan Water Reclamation Plant

**Date of completion:** 2016

**Country:** Singapore



**Project name:**

Upgrading works to pumping plant, switch room building and ancillary works at Kranji II Pumping Station

**Date of completion:** 2015

**Country:** Singapore



**Project name:**

Design and build of membrane plant at Changi Water Reclamation Plant

**Date of completion:** 2015

**Country:** Singapore







**Project name:**  
Construction of used water lift station at Jurong Water Reclamation Plant

**Date of completion:** 2015

**Country:** Singapore



**Project name:**  
Supply of life support systems to Marine Life Park in Resorts World Sentosa

**Date of completion:** 2012

**Country:** Singapore



**Project name:**  
Relocation of substation and pumphouse at Singapore Changi Airport

**Date of completion:** 2015

**Country:** Singapore



**Project name:**  
Enhancement and upgrading of pumping station at Changi Water Reclamation Plant

**Date of completion:** 2012

**Country:** Singapore



**Project name:**  
Expansion to digestors and effluent pumping station at Changi Water Reclamation Plant

**Date of completion:** 2014

**Country:** Singapore



**Project name:**  
Development of a ceramic membrane demonstration plant at Choa Chu Kang Waterworks

**Date of completion:** 2012

**Country:** Singapore



**Project name:**  
Enhancement and upgrading of used water pumping station – Contract 3

**Date of completion:** 2012

**Country:** Singapore



**Project name:**  
Construction of wastewater treatment plant for Ascendas Protrade Singapore Tech Park

**Date of completion:** 2012

**Country:** Vietnam







**Project name:**  
Replacement of M&E equipment at  
Jurong Water Reclamation Plant

**Date of completion:** 2011

**Country:** Singapore



**Project name:**  
Upgrading of existing water treatment  
plant at Choa Chu Kang Waterworks

**Date of completion:** 2008

**Country:** Singapore



**Project name:**  
Modification works to Chestnut Avenue  
Waterworks

**Date of completion:** 2011

**Country:** Singapore



**Project name:**  
Changi Water Reclamation Plant  
Contract C3C Liquid Module 1

**Date of completion:** 2007

**Country:** Singapore



**Project name:**  
Construction of rainwater harvesting and  
treatment plant at Universal Studios  
Singapore in Resorts World Sentosa

**Date of completion:** 2009

**Country:** Singapore



**Project name:**  
Replacement of M&E equipment at Ulu  
Pandan Water Reclamation Plant

**Date of completion:** 2006

**Country:** Singapore



**Project name:**  
Changi Water Reclamation Plant  
Contract EP5 Odour Control Systems

**Date of completion:** 2008

**Country:** Singapore



**Project name:**  
Recirculated seawater treatment system  
at Marine Aquaculture Centre in St John's  
Island

**Date of completion:** 2001

**Country:** Singapore







**Project name:**  
Seawater cooling system at Changi Naval Base

**Date of completion:** 1999

**Country:** Singapore



**Project name:**  
Covering of treatment units at Seletar Sewage Treatment Works

**Date of completion:** 1996

**Country:** Singapore



**Project name:**  
Bandar Sri Bengawan Water Supply Stage 5 Contract 51 Bukit Barun Treatment Works Extension

**Date of completion:** 1995

**Country:** Brunei



**Project name:**  
Bedok Sewage Treatment Works Phase III

**Date of completion:** 1993

**Country:** Singapore



**Project name:**  
Hengyang Songmu Water Supply

**Capacity:** 60,000m<sup>3</sup>/day

**Concession period:** 30 years

**Country:** Hengyang City, Hunan Province, China



**Project name:**  
Liao Cheng Sewage Treatment Works

**Capacity:** 60,000m<sup>3</sup>/day

**Concession period:** 30 years

**Country:** Liao Cheng City, Shandong Province, China





# WASTE & RENEWABLE ENERGY

*UESH ventured into the waste and renewable energy sector in recent years and completed its first major project in 2011, which is a biomass co-generation plant at Gardens by the Bay, a 101-hectare park at downtown Singapore and is one of Asia's foremost garden destinations.*



**Project name:**

Waste-to-energy project at a poultry farm in Singapore

**Date of completion:** 2015

**Country:** Singapore



**Project name:**

Co-generation system at Gardens by the Bay

**Date of completion:** 2011

**Country:** Singapore



**Project name:**

Shaoyang Medical Waste Treatment Centre

**Capacity:** 8T/day

**Country:** Shaoyang City, Hunan Province, China



**Project name:**

Weifang Medical Waste Treatment Centre

**Capacity:** 8T/day

**Country:** Weifang City, Shandong Province, China





# M&E ENGINEERING

*UESH has an established track record of more than 50 years in the provision of M&E engineering services for commercial, residential, institutional and industrial projects.*



**Project name:**  
Integrated M&E engineering works at UE BizHub EAST

**Date of completion:** 2012

**Country:** Singapore



**Project name:**  
Integrated M&E engineering works at the mixed-use development at one-north

**Date of completion:** 2011

**Country:** Singapore



**Project name:**  
Integrated M&E engineering works at Hanh Phuc International Women & Children Hospital

**Date of completion:** 2010

**Country:** Singapore



**Project name:**  
Electrical services at Marina Bay Sands

**Date of completion:** 2010

**Country:** Singapore







**Project name:**  
Electrical services at ION Orchard

**Date of completion:** 2010

**Country:** Singapore



**Project name:**  
Construction of Singtel Telecommunications Centre

**Date of completion:** 2001

**Country:** Singapore



**Project name:**  
Construction of basement for Fusionopolis and one-north MRT Stations

**Date of completion:** 2008

**Country:** Singapore



**Project name:**  
Construction of Raffles Town Club

**Date of completion:** 2000

**Country:** Singapore



**Project name:**  
Integrated M&E engineering works at National Library Building

**Date of completion:** 2005

**Country:** Singapore



**Project name:**  
Construction of Institute of Health and National Dental Centre

**Date of completion:** 1997

**Country:** Singapore



**Project name:**  
Electrical services at Harbourfront Office Development

**Date of completion:** 2002

**Country:** Singapore



**Project name:**  
Integrated M&E engineering works at Ngee Ann City

**Date of completion:** 1992

**Country:** Singapore







## AWARDS

### Asia Corporate Excellence & Sustainability Awards

Top 5 Outstanding Leaders  
in Asia 2014 Award



### Global Water Awards

Water Deal of the Year (2016)  
for DBOO of second  
NEWater plant in  
Changi



### IAIR Awards

Company of the Year for  
Leadership (M&E Engineering  
Services/South East Asia) in 2016



### WSH Awards

- WSH Performance (Silver) Award in 2014
- WSH Risk Management (Silver) Award in 2013
- Safety and Health Award Recognition for Projects (SHARP) in 2016 for DBOO of second NEWater plant in Changi; in 2012 for Marine Life Park project; in 2011 for replacement of M&E equipment at Jurong Water Reclamation Plant



### Asia Responsible Corporate Awards

- Eco-Green Outstanding Leadership Award 2017

### BCA Green and Gracious Builders Award in 2018



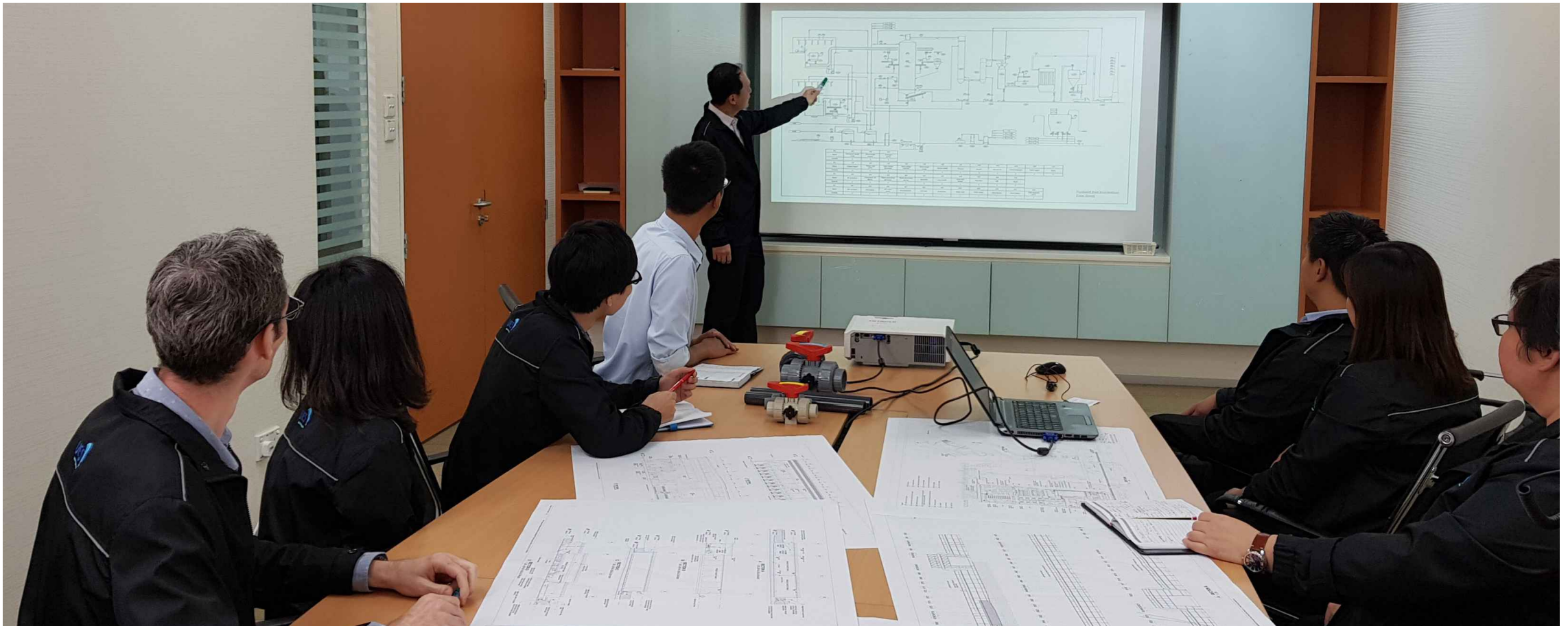
### SME100 Awards in 2018

## CERTIFICATION

- bizSAFE STAR
- ISO 9001 : 2015
- ISO 14001 : 2015
- BS OHSAS 18001: 2007
- SS 506 : Part 1 : 2009







We would like to engage the following partners for projects:

我们致力于建立合作关系：

**Solutions/  
Technology  
Providers**  
方案/  
技术提供

**Owners &  
Career  
Developers**  
业主与  
职业发展者

**Talented**  
精英才干

**Government  
Authorities**  
政府部门



**系统集成**  
**Systems Integrator**  
UES Holdings

ENGAGEMENT MODEL