

小蚝湾污水处理厂
Siu Ho Wan Sewage Treatment Works


基本数据 Basic Information
一九九八年落成启用 Commissioned in 1998
于二零零四年提升为化学强化一级处理厂 Upgraded to a chemically enhanced primary treatment works in 2004
为赤鱲角机场、东涌、愉景湾及香港迪斯尼乐园大约二十万市民提供污水处理服务 Designed to provide sewage treatment services for a population of 200,000 in Chek Lap Kok Airport, Tung Chung, Discovery Bay and the Hong Kong Disneyland

经处理的排放水主要参数 Key Parameters of Treated Effluent	排放标准 Discharge Standards
设计流量 (Design Flow)	每日 180 000 立方米 (m ³ /day)
总悬浮固体 (Total Suspended Solids)	≤100 毫克/升 (mg/L)
五天生化需氧量 (5-day Biochemical Oxygen Demand)	≤100 毫克/升 (mg/L)
大肠杆菌 (E-coli)	≤20 000 个/100 毫升 (Count/100mL)

污水处理过程 Sewage Treatment Process
<ul style="list-style-type: none"> - 幼隔筛和除砂池会清除污水内超过 6 毫米的固体废物及砂砾 - Large solids (over 6mm), grit and sand removed from the sewage by fine screens and grit chambers
<ul style="list-style-type: none"> - 化学剂于混合池内与污水混合，形成絮凝块后在沉淀池中沉淀成污泥 - Chemicals mixed with the sewage inflow in the mixing chambers to form flocs, then settled in the sedimentation tanks as sludge
<ul style="list-style-type: none"> - 在排放之前，经处理后的污水会经过紫外光消毒设施进一步改善水质 - Before discharge, effluent will pass through a UV disinfection facility to further improve the quality
<ul style="list-style-type: none"> - 离心式脱水机将污泥脱水至含固体量最少达百分之三十，然后送往位于屯门的污泥处理设施 - Centrifuges are used to dewater the sludge to achieve a minimum dryness of 30%. The dewatered sludge will then be transported to the Sludge Treatment Facility in Tuen Mun
<ul style="list-style-type: none"> - 为改善附近居民的生活环境及提供更优质的服务，厂内安装了一系列除味设施，并配合气味管理系统 - To act proactively in an environmental manner and to provide a better service to nearby residents, an odour management system with a series of deodourizing facilities are installed

小蚝湾污水处理厂太阳能发电场
Solar farm at Siu Ho Wan Sewage Treatment Works


项目数据 Project information

项目名称 Project title	小蚝湾污水处理厂太阳能光伏系统 Photovoltaic System at the Siu Ho Wan Sewage Treatment Works	
工程部门 Works department	渠务署 Drainage Services Department	
主工程合约 Main Works Contract	DE/2014/03	小蚝湾污水处理厂太阳能光伏系统 Photovoltaic System at the Siu Ho Wan Sewage Treatment Works
承建商 Contractor	中電工程有限公司 (现称「中电源动有限公司」) CLP Engineering Limited (Currently renamed as “CLPe Solutions Limited”)	
工程范围 Project scope	<ul style="list-style-type: none"> 为小蚝湾污水处理厂安装太阳能光伏系统，总装置发电容量达 1,100 千瓦 Provision of a photovoltaic system of total output power of 1,100 kilo-watt peak at the Siu Ho Wan Sewage Treatment Works  <p>小蚝湾污水处理厂太阳能发电场〔A 区及 B 区〕 Solar farm at Siu Ho Wan Sewage Treatment Works (Areas A and B)</p>	
环境效益 Environmental benefits	<ul style="list-style-type: none"> 系统每年发电量约为每年 110 万度电，足以满足厂房不少用电需求 预计每年减少二氧化碳排放量：约 770 吨 Estimated annual electricity generation of the system is 1,100,000 kilowatt-hours, which can meet a good deal of electricity need of the plant Estimated annual reduction of carbon dioxide emission: about 770 tonnes 	 <p>小蚝湾污水处理厂太阳能发电场 C 区 Solar farm at Siu Ho Wan Sewage Treatment Works (Area C)</p>
工程费用 Project cost	约 2,700 万港元 Around HK\$27 million	
开展日期 Commencement date	2015 年 2 月 February 2015	
启用日期 Commission date	2016 年 12 月 December 2016	

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太阳能光伏板资料

Photovoltaic panels information

功率 Power	260 瓦 260 Watts	
尺寸 Dimensions	1,658 毫米(长) x 992 毫米(阔) x 6 毫米(厚) 1,658 mm (L) x 992mm (W) x 6 mm (T)	
重量 Weight	23.5 公斤 / 51.8 磅 23.5 kg / 51.8 lb	
电池片数量 No. of cells	60	
座向 Orientation	向南倾斜 22 度 22° towards south	

太阳能发电场资料

Solar farm information

参数 Parameters	发电场 A 区 Area A	发电场 B 区 Area B	发电场 C 区 Area C	发电场总计 Total
占地面积 Area	约 1,650 平方米 Approx. 1,650 m ²	约 7,200 平方米 Approx. 7,200 m ²	约 2,150 平方米 Approx. 2,150 m ²	约 11,000 平方米 Approx. 11,000 m ²
逆变器数量 No. of inverters	4	7	3	14
光伏板数量 No. of PV panels	672	2,668	897	4,237
最高功率 Maximum power	175 千瓦 175 kW	694 千瓦 694 kW	233 千瓦 233 kW	1,102 千瓦 1,102 kW
厂内输电设备 Served area(s) in plant	隔筛设备 工场 Screening house workshop	紫外线消毒系统 Ultra-violet disinfection system	离心机大楼 行政大楼 化学大楼 Centrifuge Building Administration Building Chemical Building	小蚝湾污水处理厂 Siu Ho Wan Sewage Treatment Works

小蚝湾污水处理厂太阳能发电场数据概览
Fact Sheet for Solar Farm at Siu Ho Wan Sewage Treatment Works
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