

小蠔灣污水處理廠  
Siu Ho Wan Sewage Treatment Works

<b>基本資料 Basic Information</b>
一九九八年落成啟用 Commissioned in 1998
於二零零四年提升為化學強化一級處理廠 Upgraded to a chemically enhanced primary treatment works in 2004
為赤鱗角機場、東涌、愉景灣及香港迪士尼樂園大約二十萬市民提供污水處理服務 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

經處理的排放水主要參數 Key Parameters of Treated Effluent	排放標準 Discharge Standards
設計流量 (Design Flow)	每日 180 000 立方米 (m <sup>3</sup> /day)
總懸浮固體 (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)
大腸桿菌 (E-coli)	≤20 000 個/100 毫升 (Count/100mL)

<b>污水處理過程 Sewage Treatment Process</b>
<ul style="list-style-type: none"><li>- 幼隔篩和除砂池會清除污水內超過 6 毫米的固體廢物及砂礫</li><li>- Large solids (over 6mm), grit and sand removed from the sewage by fine screens and grit chambers</li><li>- 化學劑於混合池內與污水混合，形成絮凝塊後在沉澱池中沉澱成污泥</li><li>- Chemicals mixed with the sewage inflow in the mixing chambers to form flocs, then settled in the sedimentation tanks as sludge</li><li>- 在排放之前，經處理後的污水會經過紫外光消毒設施進一步改善水質</li><li>- Before discharge, effluent will pass through a UV disinfection facility to further improve the quality</li><li>- 離心式脫水機將污泥脫水至含固體量最少達百分之三十，然後送往位於屯門的污泥處理設施</li><li>- 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</li><li>- 為改善附近居民的生活環境及提供更優質的服務，廠內安裝了一系列除味設施，並配合氣味管理系統</li><li>- 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</li></ul>

## 小蠔灣污水處理廠太陽能發電場 Solar farm at Siu Ho Wan Sewage Treatment Works


### 項目資料 Project information

<b>項目名稱</b> <b>Project title</b>	小蠔灣污水處理廠太陽能光伏系統 Photovoltaic System at the Siu Ho Wan Sewage Treatment Works	
<b>工程部門</b> <b>Works department</b>	渠務署 Drainage Services Department	
<b>主工程合約</b> <b>Main Works Contract</b>	DE/2014/03	小蠔灣污水處理廠太陽能光伏系統 Photovoltaic System at the Siu Ho Wan Sewage Treatment Works
<b>承建商</b> <b>Contractor</b>	中電工程有限公司 (現稱「中電源動有限公司」) CLP Engineering Limited (Currently renamed as “CLPe Solutions Limited”)	
<b>工程範圍</b> <b>Project scope</b>	<ul style="list-style-type: none"> <li>為小蠔灣污水處理廠安裝太陽能光伏系統，總裝置發電容量達 1,100 千瓦</li> <li>Provision of a photovoltaic system of total output power of 1,100 kilo-watt peak at the Siu Ho Wan Sewage Treatment Works</li> </ul>  <p style="text-align: center;">小蠔灣污水處理廠太陽能發電場〔A 區及 B 區〕 Solar farm at Siu Ho Wan Sewage Treatment Works (Areas A and B)</p>	
<b>環境效益</b> <b>Environmental benefits</b>	<ul style="list-style-type: none"> <li>系統每年發電量約為 110 萬度電，可滿足廠房不少用電需求</li> <li>每年減少二氧化碳排放量：約 770 噸</li> <li>Annual electricity generation of the system is 1,100,000 kilowatt-hours, which can meet a good deal of electricity need of the plant</li> <li>Estimated annual reduction of carbon dioxide emission: about 770 tonnes</li> </ul>	 <p style="text-align: center;">小蠔灣污水處理廠太陽能發電場 C 區 Solar farm at Siu Ho Wan Sewage Treatment Works (Area C)</p>
<b>工程費用</b> <b>Project cost</b>	約 2,700 萬港元 Around HK\$27 million	
<b>開展日期</b> <b>Commencement date</b>	2015 年 2 月 February 2015	
<b>啟用日期</b> <b>Commission date</b>	2016 年 12 月 December 2016	

小蠔灣污水處理廠太陽能發電場  
Solar farm at Siu Ho Wan Sewage Treatment Works

太陽能光伏板資料

Photovoltaic panels information

功率 Power	260 瓦 260 Watts	
尺寸 Dimensions	1,658 毫米(長) x 992 毫米(闊) 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	
電池片數量 No. of cells	60	
座向 Orientation	向南傾斜 22 度 22° towards south	

太陽能發電場資料

Solar farm information

參數 Parameters	發電場A區 Area A	發電場B區 Area B	發電場C區 Area C	發電場總計 Total
佔地面積 Area	約 1,650 平方米 Approx. 1,650 m <sup>2</sup>	約 7,200 平方米 Approx. 7,200 m <sup>2</sup>	約 2,150 平方米 Approx. 2,150 m <sup>2</sup>	約 11,000 平方米 Approx. 11,000 m <sup>2</sup>
逆變器數量 No. of inverters	4	7	3	14
光伏板數量 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
廠內輸電設備 Served area(s) in plant	隔篩設備 工場  Screening house workshop	紫外光消毒系統  Ultra-violet disinfection system	離心機大樓 行政大樓 化學大樓  Centrifuge Building Administration Building Chemical Building	小蠔灣污水處理廠  Siu Ho Wan Sewage Treatment Works



小蠔灣污水處理廠太陽能發電場資料概覽  
Fact Sheet for Solar Farm at Siu Ho Wan Sewage Treatment Works  
(03/2020)

