

REPORT

CLP Power Hong Kong Ltd

Renewable Energy Supply on Town Island (Operational Phase): Final Monitoring Report

Dec 2013


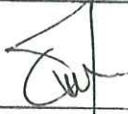
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REPORT

CLP Power Hong Kong Ltd

Renewable Energy Supply on Town Island (Operational Phase): Final Monitoring Report

Dec 2013

For and on behalf of CLP Power Hong Kong Limited	
Approved by:	_____ Wu Ming Fai
Signed:	 _____
Position:	_____ Engineer I _____
Certified by:	_____ Ma Chun Fai
Signed:	 _____
Position:	_____ Senior Operations Manager _____
Date:	_____

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1 ENVIRONMENTAL SITE AUDIT

1.1 BACKGROUND

The operation works of Renewable Energy Supply on Town Island (the Project) commenced in Dec 2012.

To fulfil environmental audit requirements stated in Section 5.7.2 of the approved Project Profile (PP) submitted for direct application of an Environmental Permit under EIA Ordinance (EIAO) (PP-413/2010), monthly environmental site audits should be undertaken to monitor the impact (via collisions) of the wind turbines on birds, with a particular focus on species of conservation interest) and migratory birds.

During the first year of operational phase, monitoring for bird collision was recommended on monthly basis. The findings from Dec 2012 to Aug 2013 were reported in 3 separated Quarterly Monitoring Report. A Final Monitoring Report is now prepared to conclude the result of environmental audits for this one-year monitoring period. The details of monitoring are summarized in Section 5.5.2 of PP.

This is the Final Monitoring Report presenting the monitoring results and observations of the site audit conducted on 27 Sep 2013, 8 Oct 2013 and 22 Nov 2013. This Final Monitoring Report which presents the monitoring results would be prepared and submitted to relevant government departments (i.e. EPD and the Agriculture, Fisheries and Conservation Department (AFCD)) upon completion of one-year monitoring period.

1.2 BIRD MONITORING FINDINGS AND OBERVATIONS

The monthly bird monitoring site audit was conducted on 27 Sep 2013, 8 Oct 2013 and 22 Nov 2013. The works undertaken during the site audit included operation and maintenance at both Site 1 and Site 2. An area of 50m radius was searched for any bird carcass or injury bird around the base of each wind turbine.

No abnormal findings and no bird injuries or death are observed.

Bird monitoring checklist is given in Annex A.

Site inspection location maps are given in Annex B.

Photos of the site audit are given in Annex C.

1.3 CONCLUSION

After the first-year operation monitoring period, review of all monitoring results revealed that no abnormal finds and bird injuries or death were observed in the monitoring period. It concluded the wind turbines have not caused any adverse impacts on birds in the area and confirmed there is no impact (via collisions) of the wind turbines on birds, with a particular focus on species of conservation interest (especially the Birds of Prey including White-bellied Sea Eagle and Black Kite) and migratory birds (eg Black-naped Tern). All monitoring according to the project profile have been completed, therefore, the monitoring will be terminated.

Annex A

Bird Monitoring Checklist

Renewable Energy Supply on Town Island
Environmental Site Audit

Inspection Date: 27 September 2013

Time: 10:30 to 13:00

Inspected By:

CLP Representative : Wilson Chan

Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Fine

Temperature °C Humidity High Moderate Rain

Wind Calm Light Breeze Strong

Birds				
Bird Group Name	Common Name	Species Name	Bird injury or death observed (Y/N)	Remarks
Birds of Prey	Black Kite	Milvus migrans	N	
	White-bellied Sea Eagle	Haliaeetus leucogaster	N	
Terns	Black-naped Tern	Sterna sumatrana	N	
Passerines	House Swift	Apus nipalensis	N	
	Common Magpie	Pica pica	N	
	Black Drongo	Dicrurus macrocercus	N	
	Barn Swallow	Hirundo rustica	N	
	Brown Shrike	Lanius Cristatus	N	
	Long-tailed Shrike	Lanius Schanch	N	
	Richard's Pipit	Anthus richardi	N	
	Great Tit	Parus major	N	
	Eurasian Tree Sparrow	Passer montanus	N	
	Chinese Bulbul	Pycnonotus sinensis	N	
	Red-whiskered Bulbul	Pycnonotus jocosus	N	
	Sooty-headed Bulbul	Pycnonotus aurigaster	N	
	Crested Myna	Acridotheres cristatellus	N	
	Black-collared Starling	Sturnus nigricollis	N	

	Common Tailorbird	Orthotomus sutorius	N	
	Hwamei	Garrulax canorus	N	
	Masked Laughingthrush	Garrulax perspicillatus	N	
	Oriental Magpie Robin	Copsychus saularis	N	
	Japanese White-eye	Zosterops japonicus	N	
Others	White-throated Kingfisher	Halcyon smyrnensis	N	
	Spotted Dove	Streptopelia chinensis	N	
	Greater Coucal	Centropus sinensis	N	
	Lesser Coucal	Centropus bengalensis	N	

Notes/Issues Recorded On Site

Nil

Signatures

CLP Representative



(Wilson Chan)

Renewable Energy Supply on Town Island
Environmental Site Audit

Inspection Date: 8 October 2013

Time: 10:30 to 13:00

Inspected By:

CLP Representative : Wilson Chan

Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Fine

Temperature °C Humidity High Moderate Rain

Wind Calm Light Breeze Strong

Birds				
Bird Group Name	Common Name	Species Name	Bird injury or death observed (Y/N)	Remarks
Birds of Prey	Black Kite	Milvus migrans	N	
	White-bellied Sea Eagle	Haliaeetus leucogaster	N	
Terns	Black-naped Tern	Sterna sumatrana	N	
Passerines	House Swift	Apus nipalensis	N	
	Common Magpie	Pica pica	N	
	Black Drongo	Dicrurus macrocercus	N	
	Barn Swallow	Hirundo rustica	N	
	Brown Shrike	Lanius Cristatus	N	
	Long-tailed Shrike	Lanius Schanch	N	
	Richard's Pipit	Anthus richardi	N	
	Great Tit	Parus major	N	
	Eurasian Tree Sparrow	Passer montanus	N	
	Chinese Bulbul	Pycnonotus sinensis	N	
	Red-whiskered Bulbul	Pycnonotus jocosus	N	
	Sooty-headed Bulbul	Pycnonotus aurigaster	N	
	Crested Myna	Acidotheres cristatellus	N	
	Black-collared Starling	Sturnus nigricollis	N	

	Common Tailorbird	Orthotomus sutorius	N	
	Hwamei	Garrulax canorus	N	
	Masked Laughingthrush	Garrulax perspicillatus	N	
	Oriental Magpie Robin	Copsychus saularis	N	
	Japanese White-eye	Zosterops japonicus	N	
Others	White-throated Kingfisher	Halcyon smyrnensis	N	
	Spotted Dove	Streptopelia chinensis	N	
	Greater Coucal	Centropus sinensis	N	
	Lesser Coucal	Centropus bengalensis	N	

Notes/Issues Recorded On Site

Nil

Signatures

CLP Representative



 (Wilson Chan)

Renewable Energy Supply on Town Island
Environmental Site Audit

Inspection Date: 22 November 2013

Time: 10:30 to 13:00

Inspected By:

CLP Representative : Wilson Chan

Weather

Condition Sunny Fine Overcast Drizzle Rain Storm Fine

Temperature °C Humidity High Moderate Rain

Wind Calm Light Breeze Strong

Birds				
Bird Group Name	Common Name	Species Name	Bird Injury or death observed (Y/N)	Remarks
Birds of Prey	Black Kite	Milvus migrans	N	
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	Common Magpie	Pica pica	N	
	Black Drongo	Dicrurus macrocercus	N	
	Barn Swallow	Hirundo rustica	N	
	Brown Shrike	Lanius Cristatus	N	
	Long-tailed Shrike	Lanius Schanch	N	
	Richard's Pipit	Anthus richardi	N	
	Great Tit	Parus major	N	
	Eurasian Tree Sparrow	Passer montanus	N	
	Chinese Bulbul	Pycnonotus sinensis	N	
	Red-whiskered Bulbul	Pycnonotus jocosus	N	
	Sooty-headed Bulbul	Pycnonotus aurigaster	N	
	Crested Myna	Acidotheres cristatellus	N	
	Black-collared Starling	Sturnus nigricollis	N	

	Common Tailorbird	Orthotomus sutorius	N	
	Hwamei	Garrulax canorus	N	
	Masked Laughingthrush	Garrulax perspicillatus	N	
	Oriental Magpie Robin	Copsychus saularis	N	
	Japanese White-eye	Zosterops japonicus	N	
Others	White-throated Kingfisher	Halcyon smyrnensis	N	
	Spotted Dove	Streptopelia chinensis	N	
	Greater Coucal	Centropus sinensis	N	
	Lesser Coucal	Centropus bengalensis	N	

Notes/Issues Recorded On Site

Nil

Signatures

CLP Representative

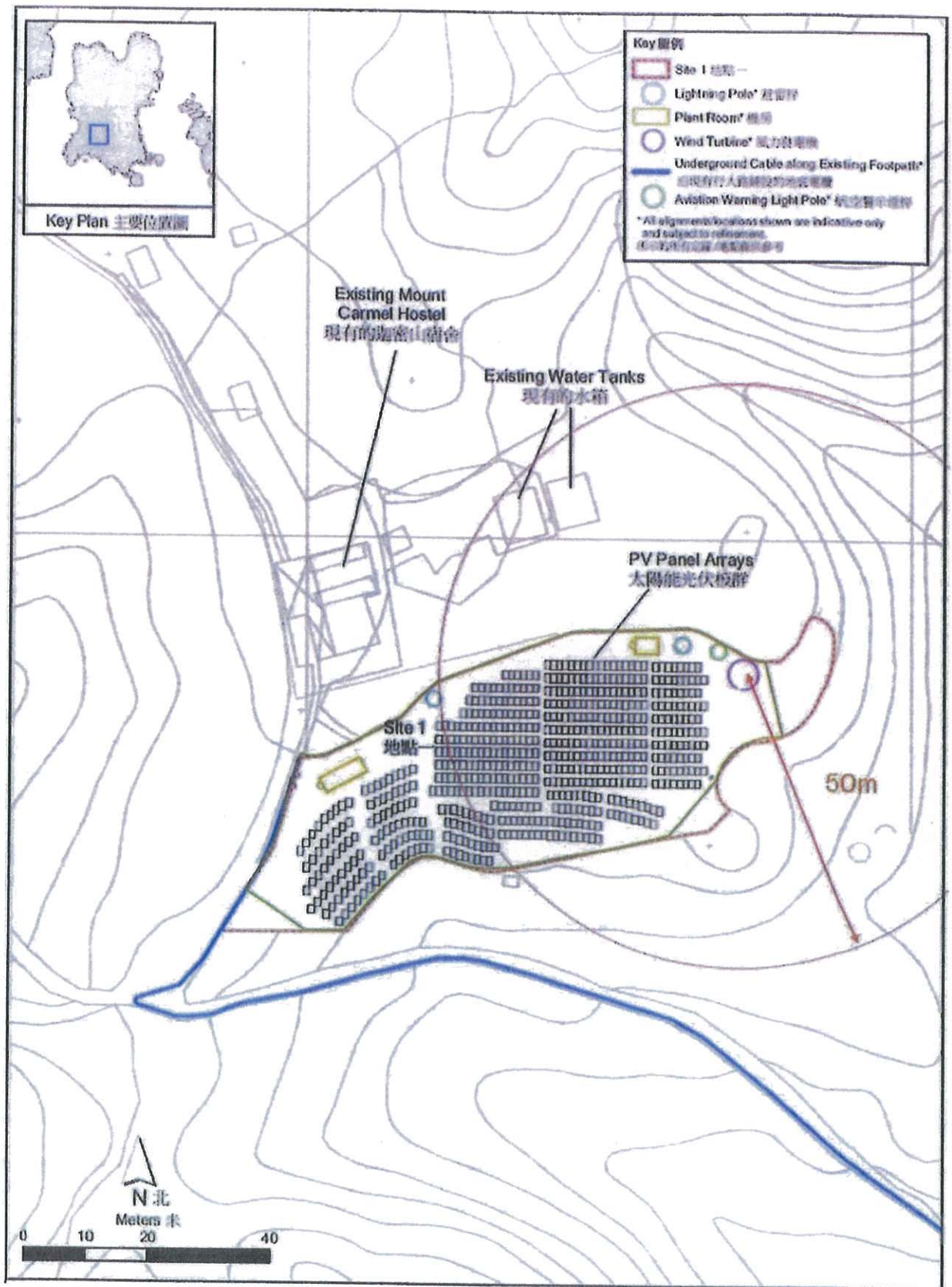


 (Wilson Chan)

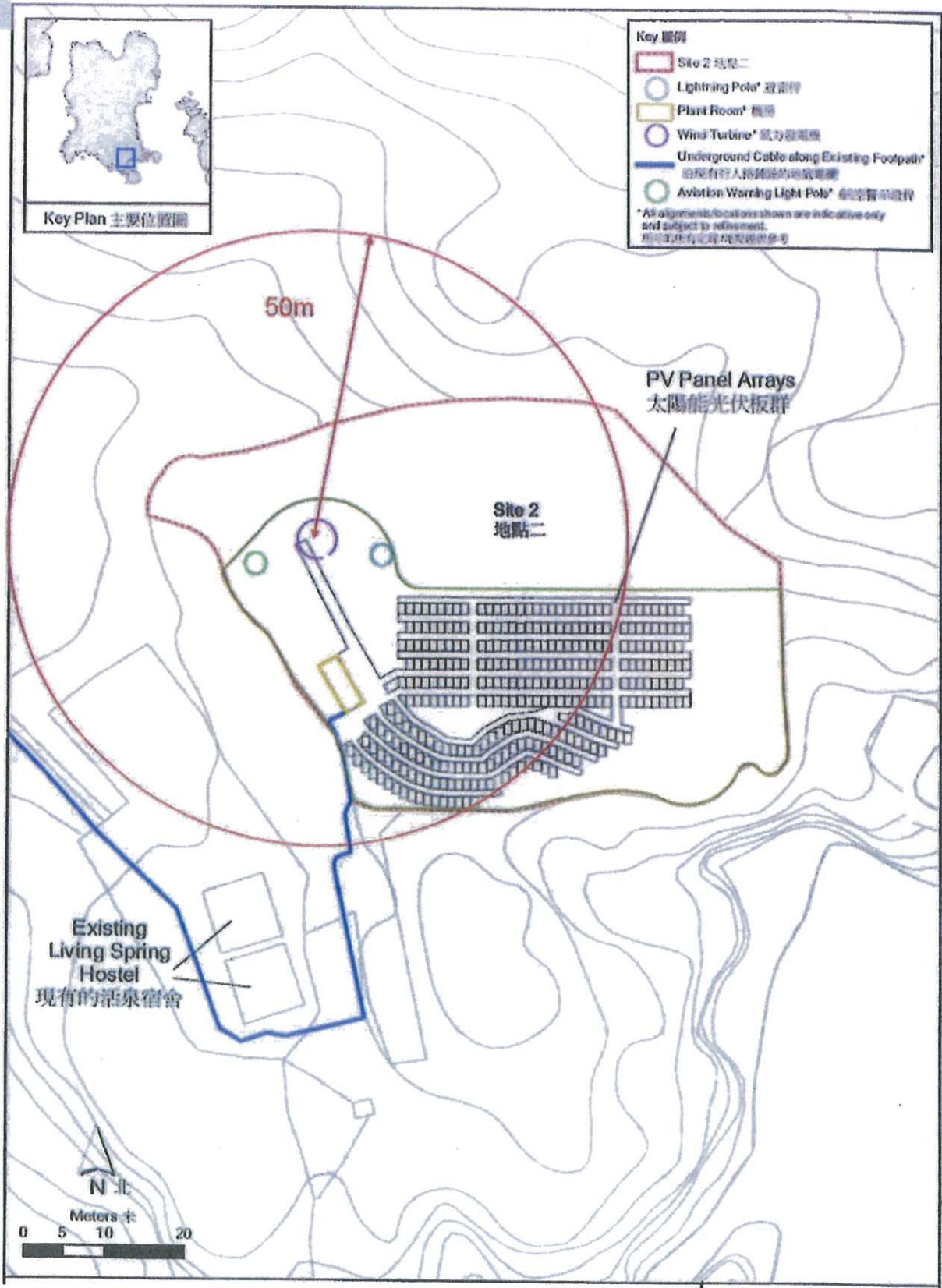
Annex B

Site Inspection Location Maps

Site 1: Mount Carmel RE Station



Site 2: Living Spring RE Station



Annex C

Photo Records

Photo Record on 27 Sep 2013



Photo Record on 8 Oct 2013



Photo Record on 22 Nov 2013

