

CONTROLLING OFFICER'S REPLY**EEB(E)188****(Question Serial No. 3831)**Head: (42) Electrical and Mechanical Services DepartmentSubhead (No. & title): (-) Not SpecifiedProgramme: (3) Energy Efficiency and Conservation, and Alternative EnergyControlling Officer: Director of Electrical and Mechanical Services (POON Kwok-ying)Director of Bureau: Secretary for Environment and Ecology**Question:**

1) With regard to the renewable energy (RE) projects implemented for government departments and public organisations, please provide information in the following format:

Year	Name of government departments/ public organisations	Buildings/ facilities involved	Actual electricity generation	Amount of electricity tariff saved	Performance in reducing indoor energy consumption	Repair and maintenance costs
2024						
2023						
2022						
2021						
2020						

2) With regard to the Pilot Scheme on Building-Integrated Photovoltaics (BIPV) launched at the Electrical and Mechanical Services Department Headquarters, what are the current progress and implementation timetable? What mechanism is in place to assess the effectiveness and feasibility of BIPV?

3) What measures have been introduced to support the use of RE by public and private organisations in the past 5 years (2020-21 to 2024-25)? Please set out the manpower and actual expenditure involved in each measure.

4) What are the plans of the Government for continuing to support the use of RE by public and private organisations in 2025-26? Please set out the manpower and estimated expenditure involved in each plan.

Asked by: Hon KAN Wai-mun, Carmen (LegCo internal reference no.: 50)

Reply:

1), 3) and 4) The Government has earmarked a total of \$3 billion to install small-scale renewable energy (RE) systems at government buildings and infrastructure since 2017-18. As at December 2024, about \$2.2 billion have been

approved for over 260 small-scale RE projects, including the installation of solar photovoltaic systems at government offices, government quarters, schools, recreational grounds-cum-rest gardens, reservoirs, pedestrian links as well as the installation of waste-to-energy and hydropower systems at multiple sewage treatment plants. Of the approved projects, 190 have been completed and the rest will commence works as scheduled in the coming year. We expect that upon completion of these projects, a total of about 26 million kilowatt-hours (kWh) of electricity will be generated annually.

The RE projects completed at government buildings and infrastructure supported by the above funding in the past 5 years and the RE projects expected to commence in 2025 are set out in Annexes I and II respectively. As the management, operation, as well as repair and maintenance of the above RE projects are undertaken by individual departments, we do not have information on the actual electricity generation, amount of electricity tariff saved, performance in reducing indoor energy consumption, as well as repair and maintenance costs.

Furthermore, the Government has endeavoured to create favourable conditions to encourage various sectors to develop RE on their land and properties. For example, the Electrical and Mechanical Services Department (EMSD) launched a scheme called “Solar Harvest” between 2019 and 2024 to assist non-government and non-profit-making schools as well as welfare non-governmental organisations to install solar energy generation systems. A total of 716 solar energy generation systems were installed at about 500 premises, including nearly 470 non-government and non-profit-making schools, under the “Solar Harvest” over the 5 years from 2019 to 2024.

The Environment and Ecology Bureau also continues the collaboration with the EMSD to regularly organise activities such as seminars and briefings to introduce the installation of RE facilities and the Feed-in Tariff Scheme to relevant stakeholders, so as to encourage different sectors to utilise their premises for the development of RE. In the past 5 years (2020-21 to 2024-25), the EMSD organised and participated in nearly 120 public and trade briefings/seminars, with about 13 000 participants in total. Other work carried out by the EMSD includes continuously updating the HK RE Net to provide the public with relevant information, guidance notes and technical guidelines on RE, and setting up an enquiry hotline to answer enquiries from private organisations and the public in relation to RE, and offer technical advice.

Other than the “Solar Harvest” concluded in the end of March 2024, the EMSD will continue to forge ahead with the aforementioned work in 2025-26. Such work will be implemented by relevant departments like the EMSD with the existing staffing.

2)

The Government is implementing the Pilot Scheme on Building-Integrated Photovoltaics (BIPV) (Pilot Scheme) at the EMSD Headquarters to explore

photovoltaic technology applications on the facades of buildings as well as the supply of RE to buildings. The objective is to assess the effectiveness and feasibility of BIPV having regard to the relevant data collected under the scheme, such as the actual power generation efficiency, performance in reducing indoor energy consumption, as well as repair and maintenance requirements and expenditures, so as to evaluate whether to extend the scheme to other public and private organisations in the future.

The first part of the Pilot Scheme involves conducting a feasibility study on the project, which was completed in December 2024. The second part involves installing a BIPV system at the EMSD Headquarters. The relevant works have been officially commenced in January 2025 and are expected to be completed in mid-2025. Afterwards, the EMSD will collect data of one year for subsequent evaluation.

RE projects completed in government buildings and infrastructure in the past 5 years⁽¹⁾

	Government department	Building / infrastructure⁽²⁾	Estimated annual electricity generation efficiency (kWh)
2024			
1	Fire Services Department	Yuen Long Fire Station	12 420
2	Government Property Agency	North Point Government Offices	37 375
3	Hong Kong Police Force	Ma On Shan Police Station	13 800
4	Fire Services Department	Wong Tai Sin Ambulance Depot	11 385
5	Leisure and Cultural Services Department	Central and Western District Promenade – Central Section (pet garden and toilet blocks)	17 369
6	Fire Services Department	Kwai Chung Fire Station	9 660
7	Fire Services Department	Shau Kei Wan Fire Station	7 473
8	Hong Kong Police Force	Marine North Division Police Station	8 280
9	Hong Kong Police Force	Explosive Ordnance Disposal Depot	29 250
10	Education Bureau	Tong Mei Road Government Primary School	11 000
11	Leisure and Cultural Services Department	Lady MacLehose Holiday Village (squash court)	11 520
12	Fire Services Department	Kowloon Bay Fire Station	12 960
13	Fire Services Department	Fire Services Headquarters Building	12 925
14	Leisure and Cultural Services Department	Tung Wan Barbecue Area, Peng Chau	75
15	Leisure and Cultural Services Department	Windsurfing Memorial Garden	125
16	Leisure and Cultural Services Department	Kwok Shui Road Park	4 880
17	Leisure and Cultural Services Department	Choi Wing Road Park	1 150
18	Leisure and Cultural Services Department	Choi Hei Road Park	875

19	Leisure and Cultural Services Department	Butterfly Beach Park	3 250
20	Drainage Services Department	Sha Tin Sewage Treatment Works	9 300 000
21	Drainage Services Department	Tai Po Sewage Treatment Works	4 378 000
22	Drainage Services Department	Siu Ho Wan Sewage Treatment Works and other sewage treatment works	301 100
23	Drainage Services Department	Cheung Shue Tan Stormwater Pumping Station and sewage pumping stations in other districts	113 535
24	Water Supplies Department	Ngau Tam Mei Water Treatment Works	110 000
25	Water Supplies Department	Ma On Shan Water Treatment Works	100 000
26	Water Supplies Department	Shum Wan Shan Fresh Water Pumping Station	65 000
27	Drainage Services Department	Chau Tau Tsuen Polder and Chau Tau Tsuen Stormwater Pumping Station	48 000
28	Highways Department	Covered walkway KCW1 at Cross-Harbour Tunnel Kowloon entrance	40 000
29	Highways Department	Footbridge No. HF145 near Fenwick Street in Wan Chai District	13 000
30	Highways Department	Footbridge No. KF82 across Chatham Road South and Granville Road near Hong Kong Science Museum	12 000
2023			
31	Leisure and Cultural Services Department	Sai Kung Outdoor Recreation Centre	11 600
32	Agriculture, Fisheries and Conservation Department	Tai Lung Veterinary Laboratory	13 000
33	Leisure and Cultural Services Department	Lion Rock Park	4 300
34	Leisure and Cultural Services Department	Tuen Mun Park	3 925
35	Hong Kong Police Force	Police Tactical Unit Headquarters	9 750
36	Leisure and Cultural Services Department	Morse Park (Park No. 4)	9 880

37	Government Property Agency	Kowloon East Government Offices	3 600
38	Government Property Agency	Tai Po Government Offices	33 150
39	Government Property Agency	North District Government Offices	25 675
40	Hong Kong Police Force	Lantau North Divisional Police Station	18 480
41	Marine Department	Western District Public Cargo Working Area	6 160
42	Food and Environmental Hygiene Department	Food and Environmental Hygiene Department – Tai Po Depot	24 700
43	Food and Environmental Hygiene Department	Wo Hop Shek Crematorium & Columbarium	22 750
44	Leisure and Cultural Services Department	Causeway Bay Sports Ground	650
45	Leisure and Cultural Services Department	Central and Western District Promenade – Sheung Wan Section	925
46	Leisure and Cultural Services Department	Hong Kong Park (Children's Playground)	1 200
47	Government Property Agency	30 Plunkett's Road	375
48	Leisure and Cultural Services Department	Fanling Hong Lok Park	250
49	Food and Environmental Hygiene Department	Fanling Wai North Refuse Collection Point (N-31)	12
50	Correctional Services Department	Lai King Correctional Institution	1 050
51	Leisure and Cultural Services Department	Jockey Club Tak Wah Park	6 480
52	Leisure and Cultural Services Department	Jordan Valley Park	810
53	Leisure and Cultural Services Department	King's Road Playground	625
54	Leisure and Cultural Services Department	North District Park	1 140
55	Leisure and Cultural Services Department	Po Hong Park	3 200
56	Food and Environmental Hygiene Department	Kwu Tung Tung Fong Farm Refuse Collection Point (N-24)	12
57	Leisure and Cultural Services Department	Sai Wan Ho Playground	900

58	Food and Environmental Hygiene Department	San Tong Village Refuse Collection Point (TP-68)	8
59	Leisure and Cultural Services Department	Sha Tau Kok Children's Playground	1 175
60	Leisure and Cultural Services Department	Sha Tau Kok Promenade Sitting-out Area	1 750
61	Leisure and Cultural Services Department	Sha Tau Kok Recreation Ground	360
62	Leisure and Cultural Services Department	Shek Wu Hui Jockey Club Playground	400
63	Government Property Agency	Shun Lee Disciplined Services Quarters	1 075
64	Leisure and Cultural Services Department	Sok Kwu Wan Playground	350
65	Leisure and Cultural Services Department	Shing Mun Valley Park (South Garden)	4 920
66	Leisure and Cultural Services Department	Tin Sau Road Park	420
67	Leisure and Cultural Services Department	Tin Yip Road Park	640
68	Leisure and Cultural Services Department	Tunnel Approach Rest Garden	180
69	Food and Environmental Hygiene Department	Wai Tau Tsuen Site 1 Refuse Collection Point (TP51)	8
70	Leisure and Cultural Services Department	Yee Shing Lane Temporary Sitting Out Area	600
71	Leisure and Cultural Services Department	Yuen Shin Park	150
72	Leisure and Cultural Services Department	Yung Shue Wan Playground	600
73	Leisure and Cultural Services Department	Po Wing Road Sports Centre	210
74	Leisure and Cultural Services Department	Kowloon Park	3 406
75	Leisure and Cultural Services Department	Lei King Wan Sitting-out Area	500
76	Leisure and Cultural Services Department	Ma Ling Path Rest Garden	275
77	Leisure and Cultural Services Department	Ngau Chi Wan Park	2 125
78	Leisure and Cultural Services Department	On Luk Street Park	3 075
79	Leisure and Cultural Services Department	Tin Shui Wai Cycling Entry/Exit Hub	1 380
80	Leisure and Cultural Services Department	Tsing Yi Sports Ground	480

81	Leisure and Cultural Services Department	Wan Chai Park	1 320
82	Water Supplies Department	Silvermine Bay Treatment Works	70 000
2022			
83	Transport Department	Yung Shue Wan Pier	9 240
84	Hong Kong Police Force	Marine East Division Police Station	26 250
85	Hong Kong Police Force	Border District Police Headquarters	19 500
86	Marine Department	Stonecutters Island Public Cargo Working Area	9 100
87	Leisure and Cultural Services Department	Kowloon Bay Sports Ground	9 100
88	Correctional Services Department	Shek Pik Prison	100 100
89	Civil Aid Service	Civil Aid Service Headquarters	8 160
90	Hong Kong Police Force	Stanley Sub-division Police Station	11 600
91	Leisure and Cultural Services Department	Kwai Shing Circuit Garden	1 650
92	Independent Commission Against Corruption	Independent Commission Against Corruption Headquarters Building	1 803
93	Hong Kong Police Force	Lantau South Police Station	5 775
94	Leisure and Cultural Services Department	Po Kong Village Road Park	14 915
95	Education Bureau	Jockey Club Government Secondary School	39 000
96	Education Bureau	Kowloon Tong Government Primary School	18 850
97	Home Affairs Department	Kowloon City Government Offices	6 500
98	Government Property Agency	Mui Wo Government Offices	21 175
99	Leisure and Cultural Services Department	Central and Western District Promenade - Central Section	2 240
100	Leisure and Cultural Services Department	Fuk Man Garden	700
101	Correctional Services Department	Lo Wu Correctional Institution	630
102	Agriculture, Fisheries and Conservation Department	Tai Mo Shan Country Park Visitor Centre	210

103	Leisure and Cultural Services Department	Cheung Chau Sports Centre	600
104	Leisure and Cultural Services Department	Ngan Shing Street Garden	350
105	Leisure and Cultural Services Department	Peng Chau Waterfront Playground	1 440
106	Leisure and Cultural Services Department	Tai Po Waterfront Park	2 100
107	Water Supplies Department	Tai Lam Chung Reservoir	120 000
108	Highways department	Subway KS57 across Cherry Street near Oak Street	20 000
109	Drainage Services Department	Stonecutters Island Sewage Treatment Works	220 000
2021			
110	Education Bureau	Queen Elizabeth School	6 930
111	Agriculture, Fisheries and Conservation Department	Western Wholesale Food Market	77 000
112	Education Bureau	N.T. Heung Yee Kuk Yuen Long District Secondary School	31 200
113	Education Bureau	Tseung Kwan O Government Secondary School	9 900
114	Correctional Services Department	Pak Sha Wan Correctional Institution	9 240
115	Department of Health	Fanling Health Centre	9 750
116	Hong Kong Police Force	Sha Tin Police Station	9 240
117	Education Bureau	Kowloon Technical School	9 240
118	Government Property Agency	Mongkok Government Offices	10 780
119	Education Bureau	Tsuen Wan Government Secondary School	7 800
120	Correctional Services Department	Hei Ling Chau Addiction Treatment Centre - Block M	6 930
121	Correctional Services Department	Hei Ling Chau Addiction Treatment Centre - Block N	7 700
122	Education Bureau	Tuen Mun Government Primary School	17 000
123	Education Bureau	Sha Tin Government Secondary School	18 480
124	Government Property Agency	Tuen Mun Government Offices	61 000
125	Education Bureau	Shau Kei Wan Government Secondary School	8 250

126	Hong Kong Observatory	Cheung Chau Aeronautical Meteorological Station	3 600
127	Hong Kong Police Force	Hong Kong Auxiliary Police Headquarters	23 100
128	Leisure and Cultural Services Department	Ngau Chi Wan Civic Centre	300
129	Agriculture, Fisheries and Conservation Department	Aberdeen Tree Centre	4 000
130	Leisure and Cultural Services Department	Chai Wan Park	700
131	Leisure and Cultural Services Department	Cheung Chau Park	700
132	Leisure and Cultural Services Department	Tsuen Wan Park	420
133	Home Affairs Department	Sai Kung Jockey Club Town Hall	500
2020			
134	Agriculture, Fisheries and Conservation Department	Hoi Ha Visitor Centre	1 400
135	Education Bureau	Canton Road Government Primary School	5 400
136	Education Bureau	Ma Tau Chung Government Primary School (Hung Hom Bay)	10 010
137	Department of Health	Kwai Chung Public Mortuary	10 780
138	Education Bureau	Kwun Tong Kung Lok Government Secondary School	9 625
139	Education Bureau	Helen Liang Memorial Secondary School (Shatin)	9 240
140	Agriculture, Fisheries and Conservation Department	Lions Nature Education Centre	7 600
141	Hong Kong Police Force	Tin Sum Police Station	11 550
142	Customs and Excise Department	Kwai Chung Customhouse	10 780
143	Hong Kong Observatory	Automatic Weather Station for Kowloon City District	4 000
144	Education Bureau	Sir Ellis Kadoorie Secondary School (West Kowloon)	9 625
145	Education Bureau	Kwun Tong Government Secondary School	10 000

146	Education Bureau	Kwun Tong Government Primary School (Sau Ming Road)	10 000
147	Hong Kong Police Force	Yuen Long Division Police Station	9 800
148	Hong Kong Police Force	Tai Hing Operational Base	9 100
149	Hong Kong Police Force	Castle Peak Division Police Station	8 450
150	Hong Kong Police Force	Hong Kong Police College	25 000
151	Education Bureau	Li Cheng Uk Government Primary School	7 700
152	Government Property Agency	Aberdeen Fisheries and Marine Offices	8 000
153	Leisure and Cultural Services Department	Fa Hui Park	400
154	Leisure and Cultural Services Department	Waterfall Bay Park	420
155	Leisure and Cultural Services Department	Tuen Mun Riverside Park	425
156	Government Property Agency	No. 111, Mount Butler Road	475
157	Leisure and Cultural Services Department	Tin Shui Wai Park	500
158	Government Property Agency	Wong Tai Sin Disciplined Services Quarters	800
159	Leisure and Cultural Services Department	Po Tsui Park	1 000
160	Leisure and Cultural Services Department	Tung Chung North Park	400
161	Government Property Agency	Aurora	950
162	Government Property Agency	Aurizon	475
163	Government Property Agency	Kwai Fuk Court	490
164	Leisure and Cultural Services Department	Quarry Bay Park	400
165	Drainage Services Department	Yuen Long Sewage Treatment Works	180 000

Notes:

- (1) The above RE projects include solar panels, solar lamp posts, hydropower, biogas and biomass energy projects.
- (2) RE projects completed in the same building or infrastructure are shown together in the year of their most recent completion.

RE projects expected to commence in 2025-26

	Government department	Building/infrastructure	Estimated annual electricity generation efficiency* (kWh)
1	Leisure and Cultural Services Department	Tin Shui Wai Swimming Pool	9 875
2	Food and Environmental Hygiene Department	Kwai Chung Depot	71 200
3	Hong Kong Police Force	Heung Yuen Wai Operational Base	8 295
4	Fire Services Department	Shek Kip Mei Fire Station	11 235
5	Leisure and Cultural Services Department	Quarry Bay Municipal Services Building	16 740
6	Fire Services Department	Tin Sum Ambulance Depot	13 910
7	Food and Environmental Hygiene Department	Sai Kung Market	107 535
8	Government Property Agency	Sai Kung Government Offices	44 940
9	Drainage Services Department	Tai Po Sewage Treatment Works	660 000
10	Drainage Services Department	Sandy Bay Preliminary Treatment Works, West Kowloon No. 1 and No. 2 Sewage Pumping Stations	130 000
11	Drainage Services Department	New ultraviolet building of Shek Wu Hui Sewage Treatment Works, Au Tau Sewage Pumping Station, Tin Shui Wai Tin Chuk Street Sewage Pumping Station and San Tin Low Flow Pumping Station	125 000
12	Water Supplies Department	Lung Cheung Road Mechanical and Electrical Workshop and other water treatment devices	608 000

* Figures indicate the annual electricity generation estimated when the installations were designed.

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