

ISWG REOPT TOOL 12/07/2017

OVERSEAS BUILDINGS OPERATIONS

U.S. DEPARTMENT OF STATE BUREAU OF OVERSEAS BUILDINGS OPERATIONS

INTRODUCTION

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OBO Portfolio

190 Countries

275 Missions 169 Embassies 76 Consulates Generals 15 Consulates 1 USINT 4 Branch Offices 10 Missions other than foreign countries (U.N. and other international organizations)

70,000,000 sqaure feet of government owned residences and offices 43,000,000 square feet of leased space

'TREES' Data Call UTILITY GATHERING EFFORTS

	ARTMENT OF verseas buildings of											Соп	npany Data	Compa	ny Project	$\mathbf{\Sigma}$
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TREES Energy Log R	lecords Report															
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Related Reports	-Select-		TREES Energy Log Reco	ords Report												
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Post	Compound RPUID	Building RPUID	Property Name	Address	Real Property Use	RPA Status	Agency	From Date	To Date	Month	Worksheet Period	Data Type	Meter Type	Total Cost	Quantity (Base UOM)	Rat
					OFF							metered	electricity			
VANCOUVER	91600714000	31600714013	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	04/01/2006	04/30/2006	<u>April -</u> 2006		Metered	<u>Electricity</u>	<u>\$339.58</u>	5,808 kilowatt- hours	
VANCOUVER	91600714000	<u>31600714013</u>	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	05/01/2006	05/31/2006	<u>May -</u> 2006		Metered	Natural Gas	<u>\$444.51</u>	0.39 therms	<u>i \$1,14</u>
VANCOUVER	91600714000	31600714013	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	06/01/2006	06/30/2006	<u>June -</u> 2006		Metered	Natural Gas	<u>\$193.68</u>	0.16 therms	<u>\$1,2:</u>
VANCOUVER	91600714000	<u>31600714013</u>	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	06/01/2006	06/30/2006	<u>June -</u> 2006		Metered	Electricity	<u>\$397.50</u>	4,452.56 kilowatt- hours	
VANCOUVER	91600714000	31600714013	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	07/01/2006	07/31/2006	<u>July -</u> 2006		Metered	Natural Gas	<u>\$91.34</u>	0.07 therms	<u>\$1,2:</u>
VANCOUVER	91600714000	31600714013	CONGEN RES	1563 MATTHEWS AVENUE	<u>RESPOR - Principal</u> Officer Residence	Active	<u>STATE</u>	07/01/2006	07/31/2006	<u>July -</u> 2006		Metered	Electricity	<u>\$396.54</u>	3,042.92 kilowatt- hours	
VANCOUVER	91600714000	31600714013	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	08/01/2006	08/31/2006	<u>August -</u> 2006		Metered	<u>Natural Gas</u>	<u>\$24.18</u>	0.01 therms	<u>\$1,96</u>
VANCOUVER	91600714000	31600714013	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	08/01/2006	08/31/2006	<u>August -</u> 2006		Metered	<u>Electricity</u>	<u>\$395.53</u>	3,276.66 kilowatt- hours	
VANCOUVER	91600714000	<u>31600714013</u>	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	<u>Active</u>	<u>STATE</u>	09/01/2006	09/30/2006	September - 2006		<u>Metered</u>	<u>Natural Gas</u>	<u>\$64.25</u>	0.05 therms	<u>\$1,32</u>
VANCOUVER	91600714000	<u>31600714013</u>	CONGEN RES	1563 MATTHEWS AVENUE	RESPOR - Principal Officer Residence	Active	<u>STATE</u>	09/01/2006	09/30/2006	September - 2006		Metered	Electricity	<u>\$393.15</u>	<u>3,140.05 kilowatt-</u> hours	
BUENOS AIRES	91020101000	31020101001	CHANCERY	COLOMBIA 4300	OFFOBC - Chancery Office Building	Active	<u>STATE</u>	10/01/2006	10/31/2006	<u>October -</u> 2006		<u>Allocated</u>	<u>Electricity</u>	<u>\$12,364.39</u>	259,309.66 kilowatt-hours	
Export																

ASSUMPTIONS AND EXPECTATIONS DOS – NREL COLLABORATION

Residential utility information is not broadly collected by our facilities, so was excluded from studies

'TREES' data is input by each facility, and is subject to errors

Data only included Total cost and Total usage (kWh, BTU)

Billing did not account for ancillary charges (Demand, Power Factor, Fees, etc)

Building portfolio data used for sizes and locations

FULL RANKING AND TOP 20

	SITE DATA										
Rank 🚽	Site Name	Country	PV Size (kW) ▼		Net Present Value (\$) ▼		LCC - Basecase (\$)		apital Cost w/ ncentives (\$) 👻	Simple Payback (yrs)	Percent Electric From RE (%)
1	BAGHDAD	IRAQ	15,705	\$	40,839,678	\$	234,293,609	\$	52,461,473	9.5	45.7%
2	AMMAN	JORDAN	2,148	\$	8,191,145	\$	41,251,935	\$	7,223,895	8.0	43.9%
3	BRIDGETOWN	BARBADOS	997	\$	2,584,655	\$	15,440,358	\$	3,380,493	9.5	45.7%
4	SAN SALVADOR	EL SALVADOR	1,434	\$	2,035,585	\$	19,522,197	\$	4,810,080	11.6	40.8%
5	MANILA	PHILIPPINES	1,972	\$	1,335,506	\$	24,987,647	\$	6,516,271	13.4	36.4%
6	ABIDJAN	COTE D'IVOIRE	809	\$	1,278,158	\$	12,674,130	\$	2,782,296	11.3	37.6%
7	JOHANNESBURG	SOUTH AFRICA	152	\$	1,028,478	\$	3,895,678	\$	625,808	6.6	50.1%
8	MAPUTO	MOZAMBIQUE	185	\$	812,270	\$	3,910,122	\$	754,784	8.3	48.5%
9	OUAGADOUGOU	BURKINA FASO	702	\$	659,835	\$	11,366,009	\$	2,450,588	12.8	31.5%
10	BUCHAREST	ROMANIA	330	\$	542,863	\$	6,207,840	\$	1,222,348	11.6	35.3%
11	NICOSIA	CYPRUS	460	\$	479,139	\$	6,416,590	\$	1,693,136	12.8	38.8%
12	MAJURO	MARSHALL ISLANDS	108	\$	375,762	\$	2,002,358	\$	437,040	9.2	46.7%
13	APIA	SAMOA ISLANDS	106	\$	332,104	\$	1,928,703	\$	430,272	9.6	44.6%
14	SUVA	FIJI	532	\$	226,261	\$	6,693,091	\$	1,893,828	14.4	36.6%
15	SYDNEY	AUSTRALIA	142	\$	98,154	\$	2,516,190	\$	575,056	14.1	32.1%
16	YOKOHAMA	JAPAN	82	\$	51,065	\$	1,433,750	\$	334,272	14.3	34.9%
17	CIUDAD JUAREZ	MEXICO	10	\$	48,474	\$	253,737	\$	40,000	7.8	51.8%
18	PERTH	AUSTRALIA	12	\$	29,828	\$	245,632	\$	48,000	10.5	40.5%
19	NAHA	JAPAN	59	\$	26,906	\$	942,522	\$	242,608	14.7	32.2%

POLITICALLY UNSTABLE

	SITE DATA										
Rank ↓ 1	Site Name Country		PV Size (kW)	Net Present Value (\$)		LCC - Basecase (\$)			apital Cost w/ ncentives (\$)	Simple Payback (yrs)	Percent Electric From RE (%)
1	BAGHDAD	IRAQ	15,705	\$	40,839,678	\$	234,293,609	\$	52,461,473	9.5	45.7%
2	AMMAN	JORDAN	2,148	\$	8,191,145	\$	41,251,935	\$	7,223,895	8.0	43.9%
3	BRIDGETOWN	BARBADOS	997	\$	2,584,655	\$	15,440,358	\$	3,380,493	9.5	45.7%
4	SAN SALVADOR	EL SALVADOR	1,434	\$	2,035,585	\$	19,522,197	\$	4,810,080	11.6	40.8%
5	MANILA	PHILIPPINES	1,972	\$	1,335,506	\$	24,987,647	\$	6,516,271	13.4	36.4%
6	ABIDJAN	COTE D'IVOIRE	809	\$	1,278,158	\$	12,674,130	\$	2,782,296	11.3	37.6%
7	JOHANNESBURG	SOUTH AFRICA	152	\$	1,028,478	\$	3,895,678	\$	625,808	6.6	50.1%
8	MAPUTO	MOZAMBIQUE	185	\$	812,270	\$	3,910,122	\$	754,784	8.3	48.5%
9	OUAGADOUGOU	BURKINA FASO	702	\$	659,835	\$	11,366,009	\$	2,450,588	12.8	31.5%
10	BUCHAREST	ROMANIA	330	\$	542,863	\$	6,207,840	\$	1,222,348	11.6	35.3%
11	NICOSIA	CYPRUS	460	\$	479,139	\$	6,416,590	\$	1,693,136	12.8	38.8%
12	MAJURO	MARSHALL ISLANDS	108	\$	375,762	\$	2,002,358	\$	437,040	9.2	46.7%
13	APIA	SAMOA ISLANDS	106	\$	332,104	\$	1,928,703	\$	430,272	9.6	44.6%
14	SUVA	FIJI	532	\$	226,261	\$	6,693,091	\$	1,893,828	14.4	36.6%
15	SYDNEY	AUSTRALIA	142	\$	98,154	\$	2,516,190	\$	575,056	14.1	32.1%
16	YOKOHAMA	JAPAN	82	\$	51,065	\$	1,433,750	\$	334,272	14.3	34.9%
17	CIUDAD JUAREZ	MEXICO	10	\$	48,474	\$	253,737	\$	40,000	7.8	51.8%
18	PERTH	AUSTRALIA	12	\$	29,828	\$	245,632	\$	48,000	10.5	40.5%
19	NAHA	JAPAN	59	\$	26,906	\$	942,522	\$	242,608	14.7	32.2%

BAD DATA

	SITE DATA										
Rank √	Site Name	Country	PV Size (kW)	1	Net Present Value (\$)	LCC - Basecase (\$)		Capital Cost w/ Incentives (\$)		Simple Payback (yrs)	Percent Electric From RE (%)
1	BAGHDAD	IRAQ	15,705	\$	40,839,678	\$	234,293,609	\$	52,461,473	9.5	45.7%
2	AMMAN	JORDAN	2,148	\$	8,191,145	\$	41,251,935	\$	7,223,895	8.0	43.9%
3	BRIDGETOWN	BARBADOS	997	\$	2,584,655	\$	15,440,358	\$	3,380,493	9.5	45.7%
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5	MANILA	PHILIPPINES	1,972	\$	1,335,506	\$	24,987,647	\$	6,516,271	13.4	36.4%
6	ABIDJAN	COTE D'IVOIRE	809	\$	1,278,158	\$	12,674,130	\$	2,782,296	11.3	37.6%
7	JOHANNESBURG	SOUTH AFRICA	152	\$	1,028,478	\$	3,895,678	\$	625,808	6.6	50.1%
8	MAPUTO	MOZAMBIQUE	185	\$	812,270	\$	3,910,122	\$	754,784	8.3	48.5%
9	OUAGADOUGOU	BURKINA FASO	702	\$	659,835	\$	11,366,009	\$	2,450,588	12.8	31.5%
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13	APIA	SAMOA ISLANDS	106	\$	332,104	\$	1,928,703	\$	430,272	9.6	44.6%
14	SUVA	FUI	532	\$	226,261	\$	6,693,091	\$	1,893,828	14.4	36.6%
15	SYDNEY	AUSTRALIA	142	\$	98,154	\$	2,516,190	\$	575,056	14.1	32.1%
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18	PERTH	AUSTRALIA	12	\$	29,828	\$	245,632	\$	48,000	10.5	40.5%
19	NAHA	JAPAN	59	\$	26,906	\$	942,522	\$	242,608	14.7	32.2%

PROJECTS UNDER CONSIDERATION

	SITE DATA										
Rank ↓ 1	Site Name	Country	PV Size (kW)	I	Net Present Value (\$) 🔻	LC	LCC - Basecase (\$)		apital Cost w/ ncentives (\$) 👻	Simple Payback (yrs)	Percent Electric From RE (%)
1	BAGHDAD	IRAQ	15,705	\$	40,839,678	\$	234,293,609	\$	52,461,473	9.5	45.7%
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6	ABIDJAN	COTE D'IVOIRE	809	\$	1,278,158	\$	12,674,130	\$	2,782,296	11.3	37.6%
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18	PERTH	AUSTRALIA	12	\$	29,828	\$	245,632	\$	48,000	10.5	40.5%
19	NAHA	JAPAN	59	\$	26,906	\$	942,522	\$	242,608	14.7	32.2%

PROJECTS UNDER CONSTRUCTION

	SITE DATA										
Rank ↓ 1	Site Name	Country	PV Size (kW)	ı	Net Present Value (\$) 👻	LC	LCC - Basecase (\$)		apital Cost w/ ncentives (\$) 👻	Simple Payback (yrs)	Percent Electric From RE (%)
1	BAGHDAD	IRAQ	15,705	\$	40,839,678	\$	234,293,609	\$	52,461,473	9.5	45.7%
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18	PERTH	AUSTRALIA	12	\$	29,828	\$	245,632	\$	48,000	10.5	40.5%
19	NAHA	JAPAN	59	\$	26,906	\$	942,522	\$	242,608	14.7	32.2%

PROJECTS COMPLETED

	SITE DATA										
Rank ≠1	Site Name	Country	PV Size (kW)	1	Net Present Value (\$) 👻	LC	LCC - Basecase (\$)		apital Cost w/ ncentives (\$) 👻	Simple Payback (yrs)	Percent Electric From RE (%)
1	BAGHDAD	IRAQ	15,705	\$	40,839,678	\$	234,293,609	\$	52,461,473	9.5	45.7%
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13	APIA	SAMOA ISLANDS	106	\$	332,104	\$	1,928,703	\$	430,272	9.6	44.6%
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15	SYDNEY	AUSTRALIA	142	\$	98,154	\$	2,516,190	\$	575,056	14.1	32.1%
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17	CIUDAD JUAREZ	MEXICO	10	\$	48,474	\$	253,737	\$	40,000	7.8	51.8%
18	PERTH	AUSTRALIA	12	\$	29,828	\$	245,632	\$	48,000	10.5	40.5%
19	NAHA	JAPAN	59	\$	26,906	\$	942,522	\$	242,608	14.7	32.2%

CURRENT OBO PV INSTALLATIONS

26 INSTALLATIONS FROM 2005-2017



PLANNED OBO PV INSTALLATIONS

18 INSTALLATIONS FROM 2018-2021



PV RETURN ON INVESTMENT

