

HEROES OF THE UAE CASE STUDY REPORT	
COMPANY PROFILE	
Name of the Company	Crowne Plaza Hotel Abu Dhabi
When the Company was established	1997
Address	Sheikh Hamdan Street, P.O. Box No: 3541, Abu Dhabi
Total area of conditioned space	30100
Total Number of Guest rooms	236
Total area of Guest rooms and corridors	13676
Total Number of Meeting rooms	5
Total area of Meeting rooms	980
Total number of Food and Beverage outlets (Restaurant, Kitchen and Bar)	7
Total area of Food and Beverage outlets (Restaurant and Bar)	2200 (approximate)
Total area of office spaces	900
Number of Employees	310
Number of vehicles owned / leased by Hotel	9
Whether the space is metered or not	No
Whether the space rented or owned by the company	Owned
Whether you use district cooling	No
Number of Electricity Meters	4
Number of Water Meters	2 - only 1 is working
Number of public toilets, wash basins, shower and urinals	400 (approximate)
Types of lighting, number if units per type	NA

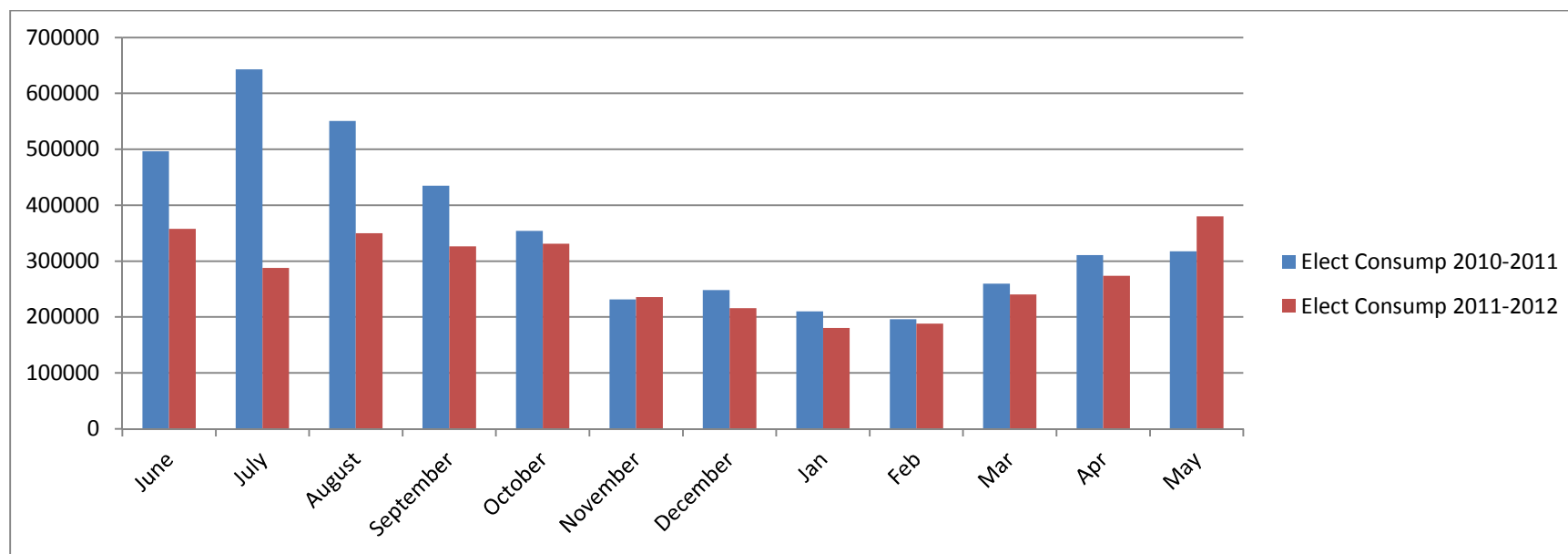
Air conditioning and number of units and the types of units	Air Handling Unit and FCU
Office Equipments	Normal
Area of case study - Electricity	Chillers 3 and 4, Basement Pump room, Cold rooms in basement floor
Area of case study - Water	All over the Hotel
Years considered for Case study	June 2010 to May 2011 vs June 2011 to May 2012

OCCUPANCY DETAILS:

	2010- 2011	2011- 2012
Number of employees	3517	3467
Total food covers	279138	282530
Number of guests	91499	85875
Total covers	374154	371872

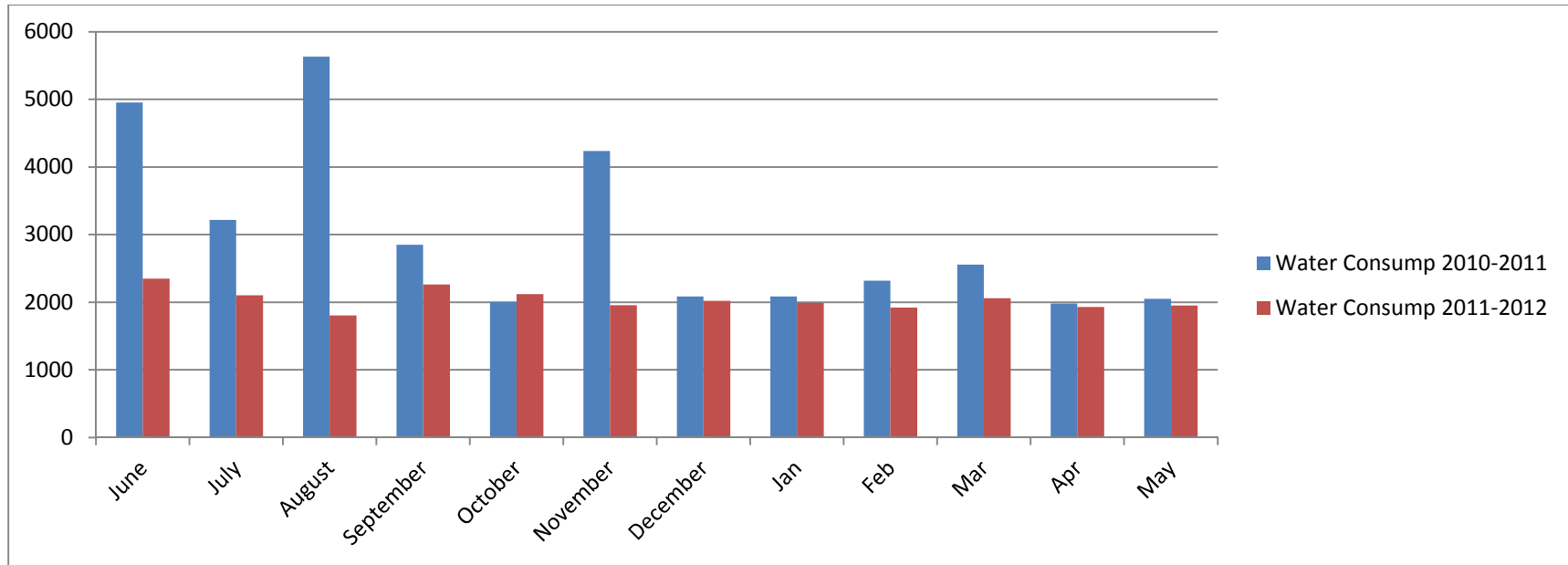
ENERGY CONSUMPTION May 2011 to May 2012 Vs 2010 and 2011 - Meter 1 - Chillers 3 and 4, Basement Pump room, Cold rooms

	June	July	August	Sept	October	Nov	Dec	Jan	Feb	Mar	Apr	May	Total	Total covers	Electricity consumed / employee / guest
Elect Consump 2010-2011	496360	642710	550730	434900	354050	231600	248470	210380	196170	259577	310813	317614	4253374	374154	11.3
Elect Consump 2011-2012	357548	287597	349761	326592	331093	235876	215790	180211	188478	240582	273704	380301	3367533	371872	9.05
												Variance	-21%		-20%



Water Consumption May 2011 to May 2012 Vs 2010 and 2011

	June	July	August	Septembe	October	November	December	Jan	Feb	Mar	Apr	May	Total	Total covers	Electricy consumed / employee / guest
Water Consump 2010-2011	4951	3215	5630	2851	2002	4235	2087	2087	2317	2554	1980	2050	35959	374154	0.096107485
Water Consump 2011-2012	2350	2100	1802	2260	2120	1956	2022	1989	1922	2059	1929	1950	24459	371872	0.065772631
												Variance	-31%		-31%



TOP ACTIONS TAKEN BY CROWNE PLAZA ABU DHABI

SNO	Action items	Action taken/ Suggested
1	Develop a Staff Active Green Team	Developed green engage team
2	Awareness program	95 % of staffs trained on Environment awareness program - to share the target and objective
3	Awareness program	About 116 colleagues pledged to save energy and water with heroes of the UAE website
4	Implement Energy Management Best Practice in the Administration Area	All colleagues have instructed to practice energy management practices
5	Implement Best Practice in Housekeeping & Laundry	Implemented relevant practices in Housekeeping and laundry - to save consumption of water
6	Implement an Engineering & Maintenance best practice	Implemented basic practices in engineering for energy and water management. Process on going
7	Implement Food and Beverage and Conference and Banqueting best practice	Implemented best practices - switching off A/Cs and lightings when there is no meetings or function
8	Implement an effective air conditioning maintenance program	Maintained the A/C temperature in unoccupied room by switching off and setting at Auto
9	Measure, record and monitor energy and water usage	Records maintained for monthly energy and water consumption
WATER		
10	Water consumption monitoring	Stopped using one dishwasher, revised vegetable washing procedure and briefed stewarding staffs on water usage
11	Water consumption monitoring	Repaired all leaks
12	Water consumption monitoring	Installed water savers provided by ADTA in guest rooms taps
13	Water consumption monitoring	Revised cleaning procedures in Guest rooms and F&B outlets and Kitchen to reduce the water consumption for cleaning

ELECTRICITY - Chillers 3 and 4, Basement Pump room, Cold rooms		
14	Electricity consumption	One of the chillers were kept off and managed to operate with rest of the chillers
15	Electricity consumption	Maintained A/C temperature in auto to reduce the load on the chillers and A/C in unused areas kept off
16	Electricity consumption	Usage of pumps were reduced as the water consumption is reduced
17	Electricity consumption	Food items in the cold rooms were moved another cold rooms and it kept switched off
18	Electricity consumption	Chillers 3 and 4 were serviced to reduce the load on the chillers

INDICATORS:

REFERENCE	INDICATOR	UNIT	RESULT
A	Percentage of reduced electricity consumption over a year	%	21 %
B	Percentage of reduced water consumption over a year	%	31 %
C1	Yearly tonnes of CO2 savings for electricity	tCO2/year	0.000945
C2	Yearly tonnes of CO2 savings for water	tCO2/year	0.000003255
D1	Percentage of CO2 reduction over a year for energy (Same value as indicator a)	%	21 %
D2	Percentage of CO2 reduction over a year for water (Same value as indicator b)	%	31 %
D3	Total percentage of CO2 reduced over a year	%	20 %
E	Total investment	AED	25000 (Approximate)
F1	Cost savings for electricity over a year	AED	132,876
F1	Cost savings for water over a year	AED	25,300
G	Payback time	years	0.15
H	Avoided CO2 emissions per Dirham	kg CO2/year/AED	0.0000379302
J1	Electricity consumption per person per year after implementation	KWh/year/person	
J2	Percentage of reduced energy consumption per person	%	
J3	Water consumption per person per year after implementation	IG/year/person	
J4	Percentage of reduced water consumption per person	%	
K1	Energy consumption per year per square metre	KWh/year/m2	
K2	Water consumption per year per square metre	IG/year/m2	
K3	CO2 emissions per year per square metre	kg CO2/year/m2	

LESSONS LEARNED:

- After pledged with Heroes of the UAE program, Crowne plaza Abu Dhabi speed up the Green engage initiative to achieve the Corporate Hero recognition.
- The major reduction in the energy and water consumption can only be achieved by an appropriate investment and major changes in the system. With the Current situation of challenges to get the investment, the hotel mainly focused on areas where can make the saving without major investment.
- From the result we got, it is proved that even we take actions to manage the existing system, without making any major modification, we can reduce significant amount of carbon foot prints. With the support from ADTA, the hotel installed water savers in all guest rooms which helped to have a significant reduction in the water consumption.
- From energy reduction program actions, it is understood that the Chillers are the high energy consuming equipment and by switching of one chiller we achieved a significant saving in the energy consumption.
- With the results what we have achieved in a year time, the management have decided to go with high energy efficiency programs including replacing LED lightings, reviewing A/C system in the Hotel, Maintaining the chillers etc in the coming year.