

Unit	Code	6-Sep	8-Sep	11-Sep	18-Sep
		kWh	kWh	kWh	kWh
6393PL	3bd-5	4130	4189	4294	4459
6397PL	3bd-6	3878	3934	4009	4150
6379PL	3bd-3	3626	3684	3785	3923
6395PL	2bd-5	3336	3382	3460	3586
6391PL	2bd-4	3227	3265	3342	3443
6380PL	2bd-1	2578	2621	2690	2791
6399PL	2bd-6	2393	2416	2474	2575
6389PL	3bd-4	2256	2279	2308	2355
6381PL	2bd-3	2207	2214	2246	2303
6378PL	3bd-2	1875	1910	1978	2189
6376PL	3bd-1	1710	1732	1791	1863
6382PL	2bd-2	1631	1661	1705	1800

**Chart #1 data (above)**

**Chart #1 next page (2)**

**Meter readings required to set baselines for future comparisons**

**Chart #2 (same data) on**

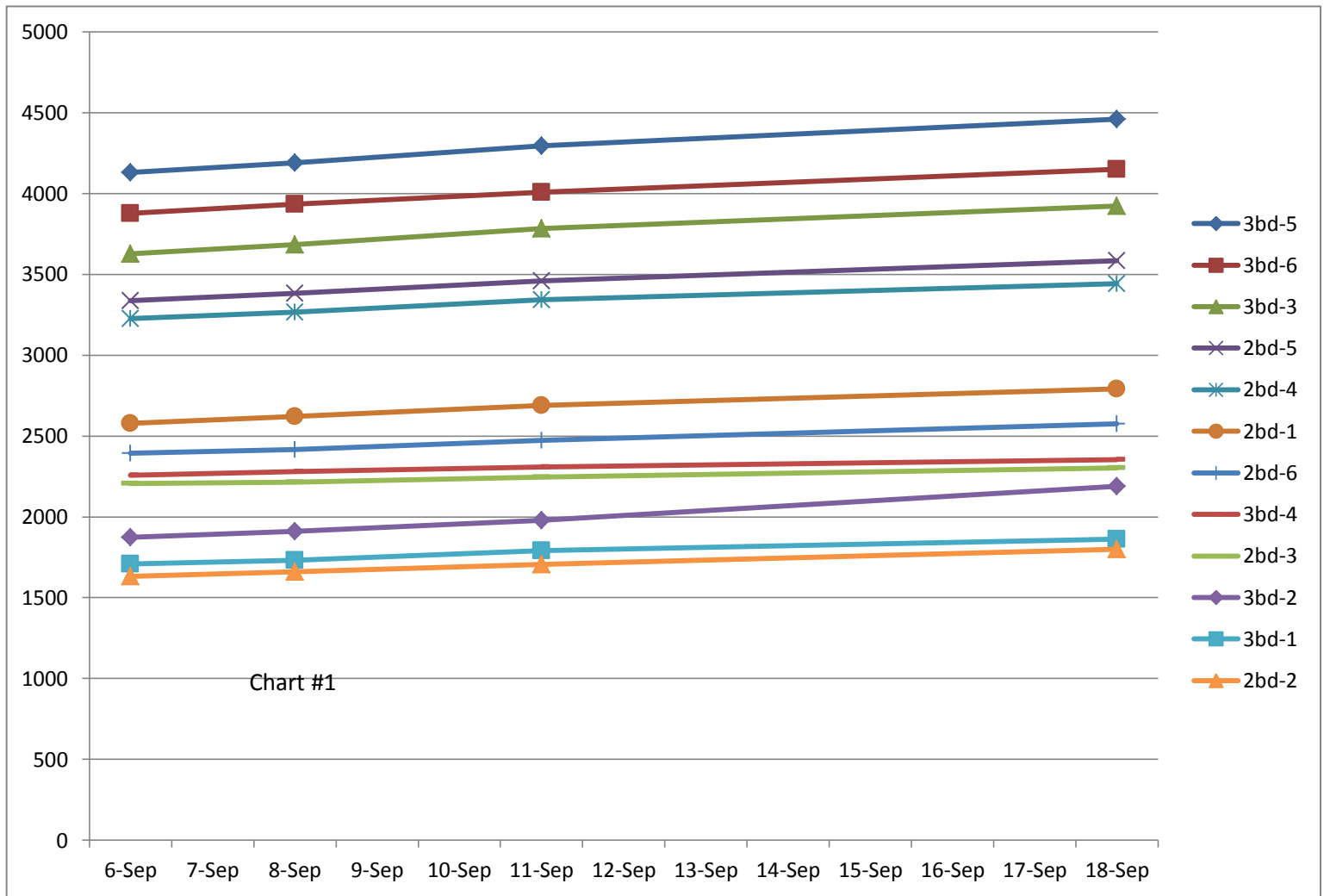
**CASE Study: Piedmont Lane (PL), The Plains, VA**

Descending sequence of meter kWh readings as date research commenced on 9/6/12

Lines will intersect with the passage of time as energy usage varies by unit

NO occupant visibility to usage except for their own via utility bills prior to any of this data being distributed - awareness leads to less usage

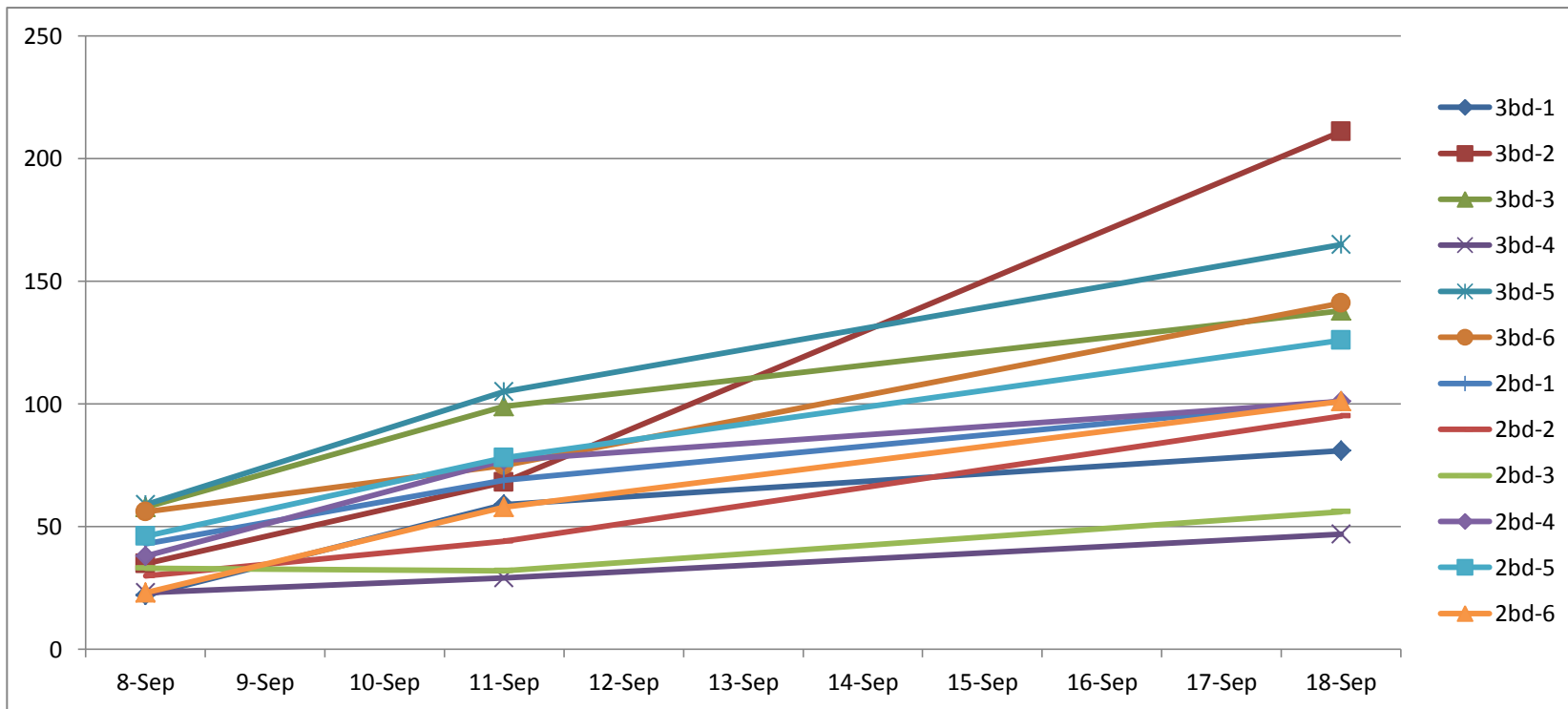
**Chart #1 Meter readings: First occupants in May 2012 and all 12 units filled by 8/31/12 - Baselines different due to construction, geothermal unit testing, # of occupants, habits, comfort levels, etc.**



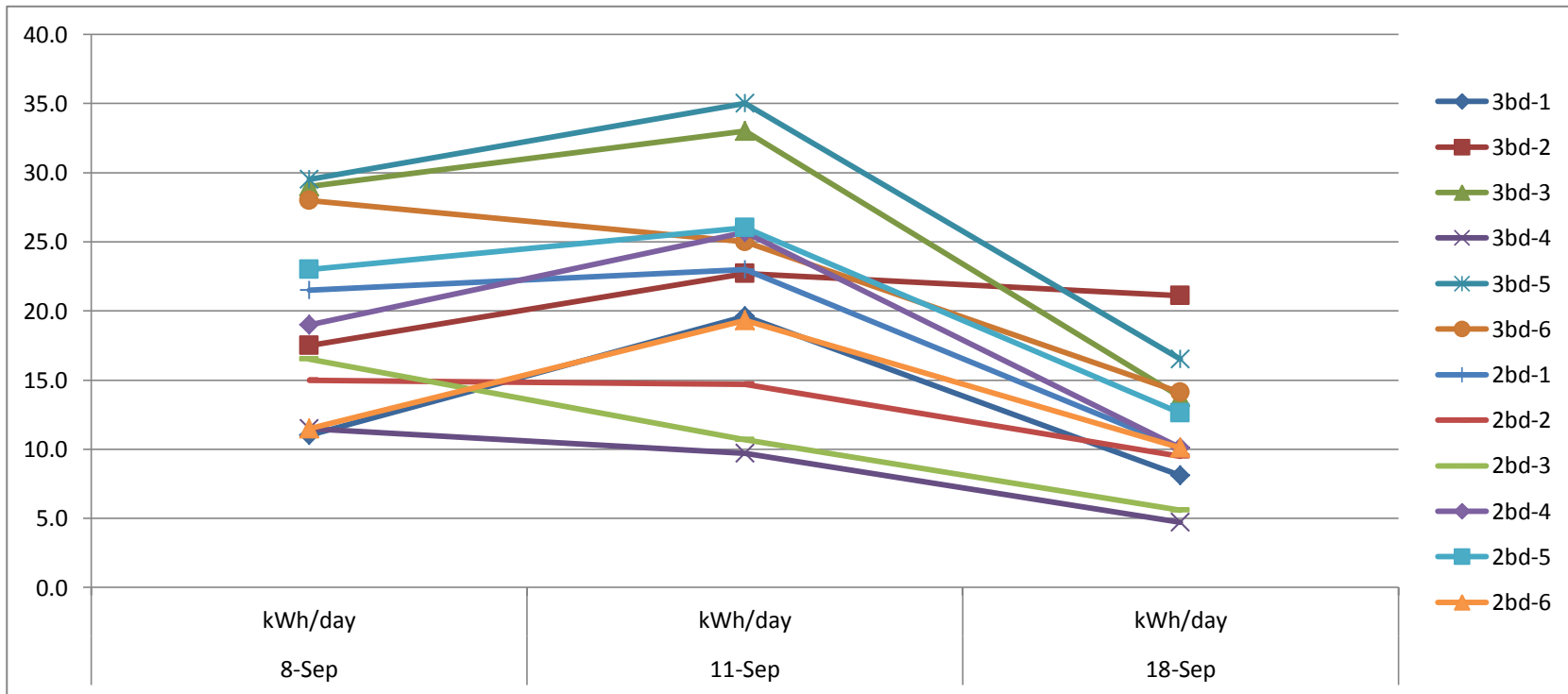
**Results "blinded" on graphs for privacy reasons. 3bedroom units all same size (same for 2 bedroom)  
 Unit #s available on request by occupants, management company, foundation, architects, builder, etc.  
 Observation #1: Unit size does not necessarily increase energy usage**

Unit #	Code	8-Sep kWh	11-Sep kWh	18-Sep kWh
6376PL	3bd-1	22	59	81
6378PL	3bd-2	35	68	211
6379PL	3bd-3	58	99	138
6389PL	3bd-4	23	29	47
6393PL	3bd-5	59	105	165
6397PL	3bd-6	56	75	141
6380PL	2bd-1	43	69	101
6382PL	2bd-2	30	44	95
6381PL	2bd-3	33	32	56
6391PL	2bd-4	38	77	101
6395PL	2bd-5	46	78	126
6399PL	2bd-6	23	58	101

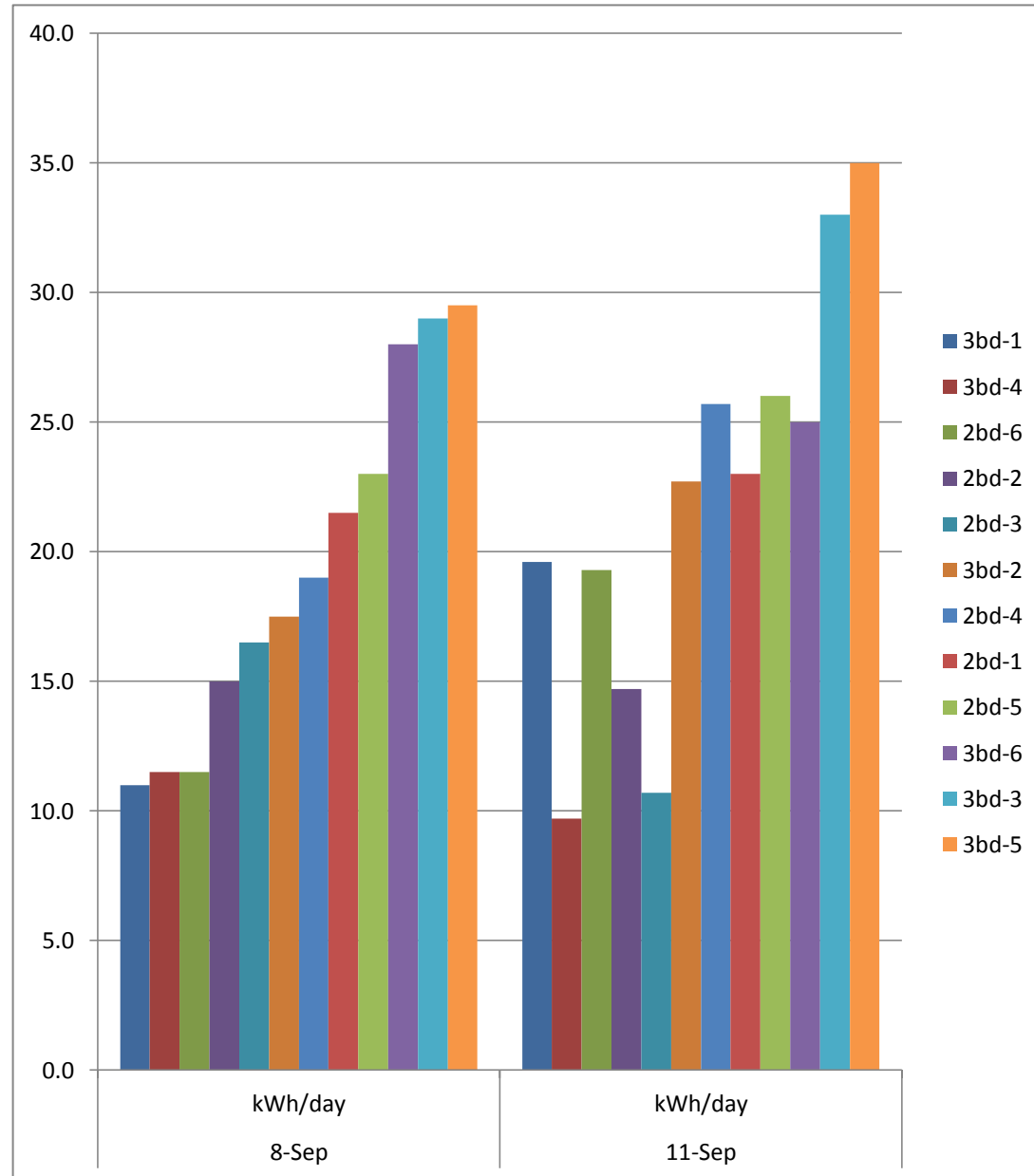
Chart #2



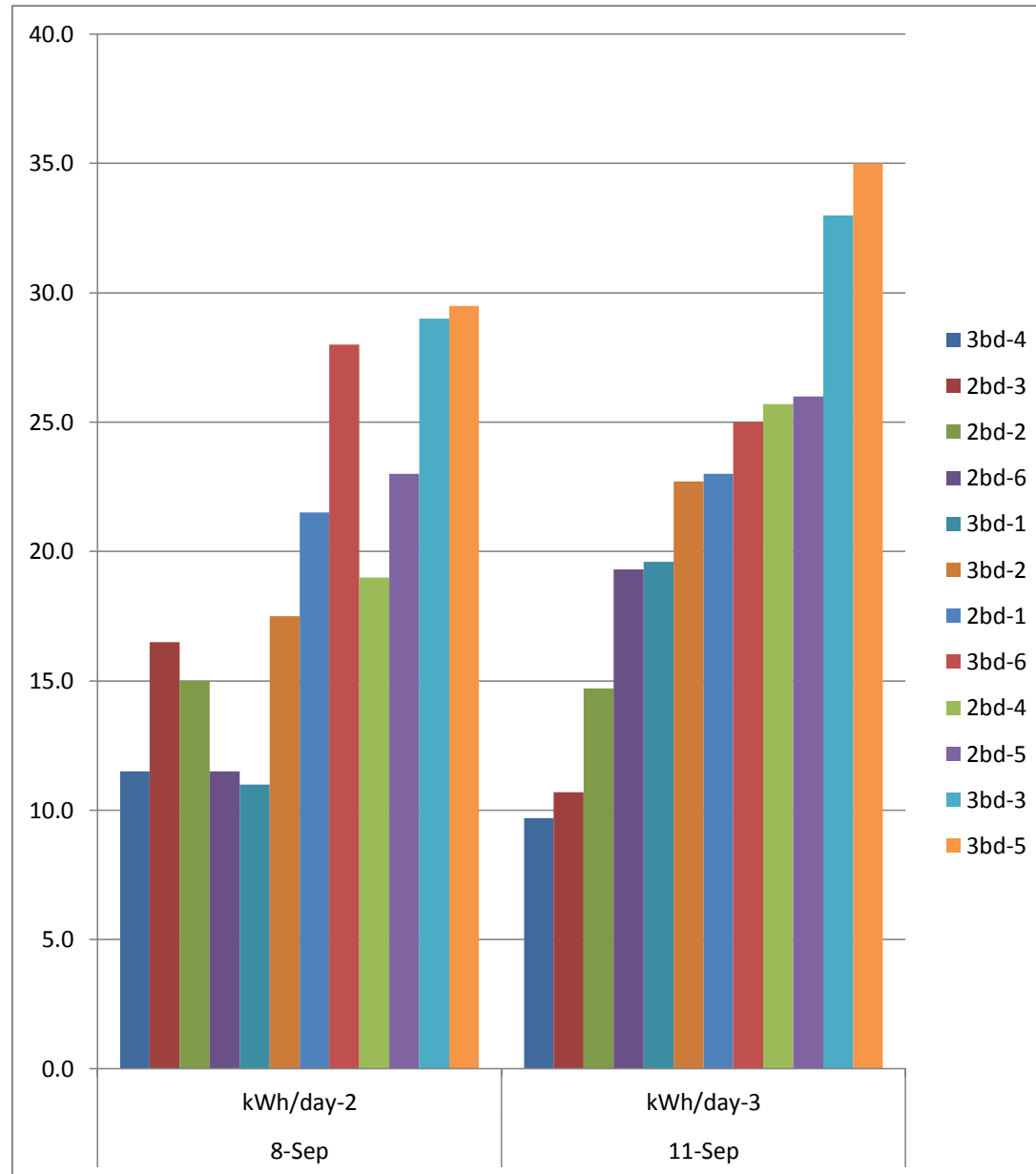
Unit	Code	8-Sep kWh/day	11-Sep kWh/day	18-Sep kWh/day
6376PL	3bd-1	11.0	19.6	8.1
6378PL	3bd-2	17.5	22.7	21.1
6379PL	3bd-3	29.0	33.0	13.8
6389PL	3bd-4	11.5	9.7	4.7
6393PL	3bd-5	29.5	35.0	16.5
6397PL	3bd-6	28.0	25.0	14.1
6380PL	2bd-1	21.5	23.0	10.1
6382PL	2bd-2	15.0	14.7	9.5
6381PL	2bd-3	16.5	10.7	5.6
6391PL	2bd-4	19.0	25.7	10.1
6395PL	2bd-5	23.0	26.0	12.6
6399PL	2bd-6	11.5	19.3	10.1



Unit	Code	8-Sep kWh/day	11-Sep kWh/day
6376PL	3bd-1	11.0	19.6
6389PL	3bd-4	11.5	9.7
6399PL	2bd-6	11.5	19.3
6382PL	2bd-2	15.0	14.7
6381PL	2bd-3	16.5	10.7
6378PL	3bd-2	17.5	22.7
6391PL	2bd-4	19.0	25.7
6380PL	2bd-1	21.5	23.0
6395PL	2bd-5	23.0	26.0
6397PL	3bd-6	28.0	25.0
6379PL	3bd-3	29.0	33.0
6393PL	3bd-5	29.5	35.0



Unit	Code	8-Sep kWh/day-2	11-Sep h/day-3
6389PL	3bd-4	11.5	9.7
6381PL	2bd-3	16.5	10.7
6382PL	2bd-2	15.0	14.7
6399PL	2bd-6	11.5	19.3
6376PL	3bd-1	11.0	19.6
6378PL	3bd-2	17.5	22.7
6380PL	2bd-1	21.5	23.0
6397PL	3bd-6	28.0	25.0
6391PL	2bd-4	19.0	25.7
6395PL	2bd-5	23.0	26.0
6379PL	3bd-3	29.0	33.0
6393PL	3bd-5	29.5	35.0



Unit	Code	8-Sep kWh/day-2	11-Sep kWh/day-3	% drop(-) / increase
6381PL	2bd-3	16.5	10.7	-35.0%
6389PL	3bd-4	11.5	9.7	-15.7%
6397PL	3bd-6	28.0	25.0	-10.7%
6382PL	2bd-2	15.0	14.7	-0.2%
6380PL	2bd-1	21.5	23.0	7.0%
6395PL	2bd-5	23.0	26.0	13.0%
6379PL	3bd-3	29.0	33.0	14.0%
6393PL	3bd-5	29.5	35.0	18.6%
6378PL	3bd-2	17.5	22.7	29.7%
6391PL	2bd-4	19.0	25.7	35.3%
6399PL	2bd-6	11.5	19.3	67.8%
6376PL	3bd-1	11.0	19.6	78.2%

