



Sample
(2 Page Condensed Report)

PowerDown Audit – Procedures, Recommendations & House Statistics Report

Client: Jackie & John Smyth

Date: July 12, 2010

Procedures for Smyth House: As you know, after the audit interview we start with the main circuit breaker panel and sub-panels in your house and identify each circuit and the room and major appliances the breaker controls. In the attached table we've indicated the readings for each breaker/room in "Background" mode (no appliances turned on) and in the "Active" mode with lights and major appliances running.

For your baseline figures, the kWh (kilowatt per hour) estimates are based on a **32 cents a kWh** / average (.32/kWh) even though you are on a tiered plan starting at 12 cents and ranging up to 40 cents. Your effective rate is 32 cents (.32kWh) when averaged but **you are charged at the 40 cents rate for ~40% of your monthly bill**. If you can lower your overall usage and not hit the top two tiers (.29 and .40) with the same volume you can dramatically affect your overall bill.



Analysis

As discussed during the visit, there are a number of things you can do to reduce your background energy level and the daily spikes as well. It looks like your kilowatt run rate with most circuits and appliances in Background mode and a few things actually on like the office computers, is approximately **940 watts per hour**. Multiplying that by .32 (your effective rate) and you get roughly \$7.2 a day and **\$224 a month** before you have begun any of your daily routine. (All figures are estimates and based on the recent PGE bills plus the sampling 7/10/10.)

Once you add in your daily pool maintenance at 6 hours a day, plus the spa and heater minutes, you can see how it can spike dramatically. The pool pump alone shoots the rate to **.53/hour**. Along with the other...



Recommendations

Where feasible, you want to reduce the background noise and then be aware of what causes the periodic spikes.

- 1) Reduce the pool pump hours to the numbers we discussed for the different seasons and if you want to evaluate more efficient pool pumps, give me a call and I can recommend pumps, local retailers and pool service personnel.
- 2) As for the computers, it's really best to turn them off at night or when you're not using them but if you can't, at least use the Sleep mode (a "1/4 moon" button on your HP keyboard) when not using them and also turn off the printer when not being used. (We can install a Smart Power Strip if you get tired of turning off the peripherals manually. It has a control socket that turns off everything else plugged into that strip when you power down the monitor, for example.) See my website for additional tips and techniques for...

Smyth House Circuit Breaker Report

Circuit Breakers (# and Label)	Reading in watts / kw	Cost (.32kWh)	Daily Estimate	Monthly Estimate (31 days) & Notes
1-3) Garage Plugs	240 watts	.07/h	\$1.8	\$56. With the rest of the circuits off, and only circuits 1-3 on, the reading is ~240 watts for both the garage plugs and devices in the garage (i.e., router & server).
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9-10) Sub-panel West	640 watts	.20/h	\$4.9	\$152. When circuits 9 & 10 were turned on, the baseline jumped from 240 wts to 640 wts. This is the new baseline with circuits 1-10 on but no appliances yet "active".

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Smyth House - Inside the Home Statistics

At this point, all the circuits have been flipped for the main and garage sub-panel and I started with the appliances inside the house.

| Appliance/ Device | Reading in watts / kw | Cost (.32 /kWh) | Daily Estimate | Monthly Estimate (31 days) & Notes |
|--|-----------------------|-----------------|---------------------|--|
| Overhead lights, fan & TV switches. | 130 watts | .04/h | \$1.00 (if left on) | Turned on and off. |
| Microwave on | 1.340 kw | .42/h | N/A | N/A |
| ~~~~~ | ~~~~~ | ~~~~~ | ~~~~~ | ~~~~~ |
| Main computer, Printer and Laptop on | 150 watts | .05/h | \$1.15 | Turned on and left on Standby |
| Tivo, TV & receiver on | 460 watts | .15/h | \$3.5 | Turned on and left on Standby |
| ~~~~~ | ~~~~~ | ~~~~~ | ~~~~~ | ~~~~~ |
| New Baseline w/ main computer, printer and laptop on as normal, and TV, Tivo & receiver in standby = 940 watts. | 940 watts | .30/h | \$7.2 | This is your current run rate (940 watts) and baseline before any add'l appliances or devices are turned on. This runs you \$7.2 a day and \$224 a month. |

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Call or email me if you have any questions, it was a pleasure helping you with your energy concerns.

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(Note: The ~~~~~ indicates a condensed portion of the report. Reports often run 3-4 pages as necessary.)