Video Games: Energy Heist?

Now in more than 40 percent of all homes in the United States, video game consoles consume an estimated 16 billion kilowatt-hours annually—roughly, the annual electricity used by the city of San Diego. These deceptively small but greedy energy thieves are driving up electric bills. How do they do it and, more importantly, how can you keep the cost of playing under control?

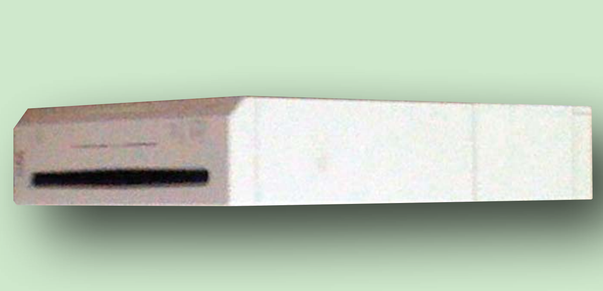
The suspects

Console 1 – Play Station 3

DVD-ROM, Cell Broadband Engine processor, 256-MB RAM, 80-GB hard disk drive, external game pad, wireless. Game tested: Civilization Revolution

Console 2 – Xbox 360

DVD-ROM, 3.2-GHz IBM PowerPC 3 cores processor, 512 MB RAM, 12-GB hard disk drive, 10 MB-integrated video adapter memory, 16-bit Surround Sound, external game pad, wireless, external power adapter. Game tested: Halo Wars



Console 3 – Nintendo Wii

IBM PowerPC processor, 512 MB RAM, Flash memory card, wireless, remote-control joystick. Game tested: Wii Sports

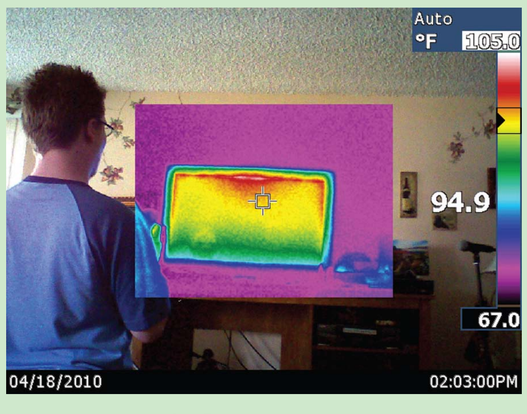
The detectives

Kill-a-Watt power meter

Easy-to-use tool for measuring energy consumption of household appliances and electronics.

Fluke Ti10 infrared camera

Detects wasted energy in the form of heat. If you can use a regular camera, you can use this point-and-shoot tool.



Special Agent Brady

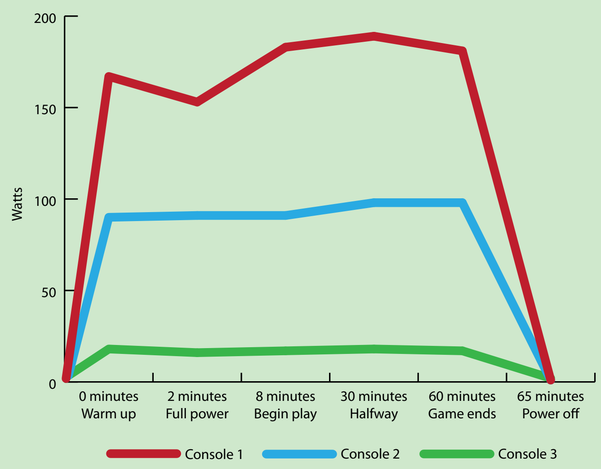
A seasoned gamer with in-depth knowledge of all three suspects, based on many hours of surveillance.

The interrogation

Each session included a pre-game movie a few minutes long and one hour of play. The Kill-a-Watt measured only the consoles' electricity use, not the power consumed by the flat-screen television that served as a monitor.

Upon connection to the Kill-a-Watt, the consoles showed a slight power draw, possibly from not having been completely shut off after the previous game session. Special Agent Brady took a baseline reading immediately after turning the systems on, a second reading as the games warmed up during the pre-game movie, and third when the games reached full power, at the beginning of play.

A reading was taken at the half-hour point in the game session, and again at the end of an hour, before the games were powered down. The intrepid Brady took a final reading five minutes after completely shutting down the consoles. Once more, the consoles seemed to be drawing a tiny amount of power.



Watt-hours (Wh) consumed during one-hour play session, multiplied by 676 hours playing time per year (based on 13 hours weekly average):

Console 1 - 185 Wh or 125 kWh
Console 2 - 98 Wh or 66 kWh
Console 3 - 17 Wh or 11.5 kWh

That doesn't seem like much, until you factor in the monitor's energy use—which can be very high for flat-screen televisions. Also, users may leave their games in "idle" mode for hours on end, which consumes almost as much power as active play. If you have more than one gamer in the household, the electricity use—and dollars—can really add up.

The verdict

While gamers have their favorite games and systems, the Energy Detectives found clear evidence that some systems use significantly more energy than others. Whatever game you choose, there are steps you can take to keep video games from committing grand theft electricity:

- Most important of all, turn off the system completely after playing. According to eHow.com, you can save up to $134 a year if you use a Play Station, and $12 a year if you use a Wii.
- Plug the system into a power strip that will power down the game automatically if you forget.
- Invest in a remote power control device that can turn off the game remotely.

Here are some more energy-saving tips from eHow.com

- If your system has a power saver mode, enable it and make a habit of saving your game whenever you stop playing.
- Don't use your gaming console to watch movies—DVD players use less energy.
- Look for new consoles with energy-saving features like auto-save games, auto-power down features and a sleep button on the game controller.

Western's Energy Services thanks Brady Fronk for his research and the use of his gaming consoles.
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