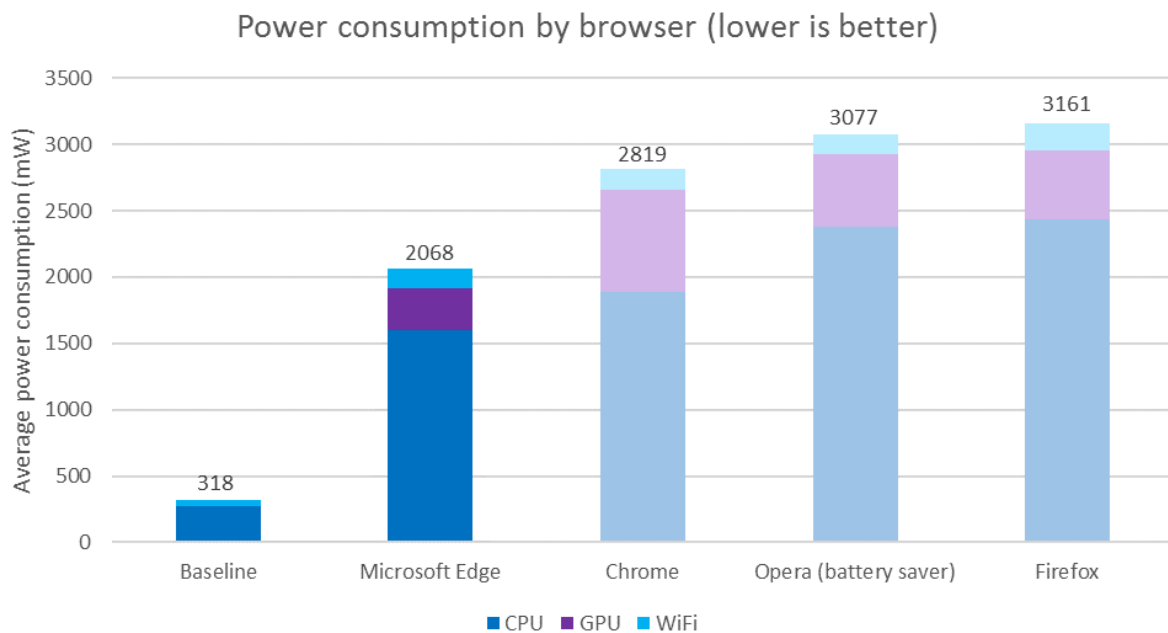


Battery life turns out to be one more reason for Microsoft to beat Edge drum

June 21 2016, by Nancy Owano



Credit: Microsoft

(Tech Xplore)—OK, your favorite subject, mobile work warriors, is battery life, and we sympathize with your focus, which in the best of all worlds you wish could be placed elsewhere.

Section Editor of CNET, David Katzmaier, reported on Monday that the company claims that Windows 10 device users working with the Edge

browser instead of Chrome, Firefox or Opera can get 36 percent to 53 percent more battery [life](#).

The root of all this is a Monday [Windows Experience blog](#) by Jason Weber. He directs the Web Platform Team for Microsoft Edge.

How did Microsoft get the numbers? Katzmaier said tests were run in a controlled lab environment. There was an automated sequence of tasks such as opening websites, scrolling through articles, watching videos and using Facebook, Google, Amazon and Wikipedia. *TechRadar* said the lab tests were carried out using a Surface Book hooked up to power monitoring equipment measuring "the amount of juice being used across a range of typical [tasks](#)."

Peter Bright in *Ars Technica* dug down into testing detail, saying that "in a test that cycles through some common sites including Facebook, YouTube, Wikipedia, and Amazon, Microsoft's latest browser lasted 7 hours and 22 minutes on a Surface Book system. Chrome lasted just 4 hours and 19 [minutes](#)."

Actually, the browsers were compared "across three independent dimensions," said Weber. "First, we measured their power consumption in a controlled lab environment. Second, we examined the real-world energy telemetry from millions of Windows 10 devices. Finally, we recorded time-lapse videos of each browser performing the same tasks until the battery dies. Microsoft Edge wins out in every case..."

What did Katzmaier think of the claims? "CNET hasn't tested the effects of browser use on [battery life](#) recently, so we can't verify the claims. In a hands-on evaluation last year, we preferred Edge to Internet Explorer, Microsoft's other browser, but we still liked Chrome and Firefox better."

Last month, *The Wall Street Journal* reported on what was found after

running tests on browsers both on computers and smartphones.

Edge got WSJ's compliments for its "intuitive, modern interface." But more important, what were the [comparison](#) results? Joanna Stern: "In industry benchmarks and my own speed tests, Edge and Chrome were neck and neck for first place. Firefox and Opera—two clunky yet long-surviving third-party browsers—trailed. Internet Explorer barely placed."

As for power, Edge had the edge. "Yet unlike Chrome, Edge doesn't hog so much of a computer's power. On a Web-browsing battery test, the Dell XPS 13 lasted an hour longer with Edge than with Chrome. When streaming Netflix, it lasted two full hours longer."

Stern's advice, however, was this: "I suggest you use Chrome on Windows 10. The exception: Edge will eke out better performance on underpowered Windows 10 laptops and tablets."

Bright, meanwhile, discussed some interesting points about technical tweaks to Edge. "The Windows 10 Anniversary update is making further changes to improve Edge's power efficiency. Some of these tweaks are surprisingly small—for example, changing how certain animations are performed in the toolbar to allow greater offloading to the GPU—whereas others are larger."

Among the noteworthy: Flash content not deemed as central to the content of a page will become click-to-play.

Also, he said, "Background tabs will also use fewer resources by making their JavaScript timers fire less frequently and by using coalescing to ensure that they all fire together and hence reduce the number of times that the processor must be woken up." Another note: "Edge will also more aggressively re-request data that appears to be timing out. These changes mean that the Wi-Fi connection can be put into low power mode

more aggressively."

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