

Apple's Greenhouse Gas Reporting is a Welcome Step Forward

By Conrad MacKerron
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The leadership of Apple Inc. took an encouraging step forward last Thursday in a bid for a higher green leadership profile in the IT industry by [releasing an update of its recent environmental accomplishments](#). The centerpiece is a summary of a lifecycle assessment of greenhouse gas (GHG) emissions associated with all of its products.

The company also did a much better job this year discussing the breadth of its carbon footprint in the annual Carbon Disclosure Project report released last week. Apple's reporting score shot up from a dismal 7 last year when it barely answered any substantive questions, to 73 this year; even surpassing rival Dell at 66. It also released emissions data in a manner that makes it more comparable with other IT sector reporters. However, unlike its competitors, it still refuses to make specific GHG emission reduction commitments.

Apple's lifecycle assessment (LCA) is notable for including an estimate of the power gobbled up by its computers over a projected four-year lifetime (three years for iPods). The company's study concluded that electrical power consumed during product use accounts for the largest amount of GHG emissions -- 53 percent (or 5.3 million metric tons), with mining and manufacture ranked second at 38 percent (3.8 million metric tons).



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This expanded disclosure was a response to a [shareholder proposal \[PDF\]](#) filed by [As You Sow Foundation](#) (Note: I am the director of [As You Sow's Corporate Social Responsibility program](#)) with the company and voted on last February at the company's annual meeting. You probably didn't realize it was a response because Apple did not acknowledge that shareholders such as [As You Sow](#), the New York City pension funds and Green Century Funds have been pressing for better data for more than a year. The fact that we even had to raise this issue at a company where one of the world's most prominent climate change evangelists, Al Gore, sits on the board, was disappointing.

A [BusinessWeek story](#) published last week, including an interview with Apple CEO Steve Jobs about its progress on environmental issues, said Apple wants to change the terms of the debate on green ranking. The company complains that peers' reports on GHG emissions are mostly limited to operations and not supply chain and emissions related to consumer use.

That is a fair point: I agree HP and Dell should be further along in assessing their supply chain emissions. Previous GHG data released by Apple competitors have sometimes only included assessment of the carbon footprint of their operational offices and not their supply chain, making carbon footprints appear much smaller than they are. When Dell announced recently it had achieved a goal of becoming "carbon neutral," many consumers probably did not know that it meant that it was "operationally" carbon neutral, and is still assessing its supply chain emissions which will likely dwarf final assembly operations emissions.

But the cursory LCA summary released by Apple hardly qualifies as the "full story on Apple's environmental footprint" promised on its home web page (but kudos to management for putting [prominent mention of the environment there](#)). LCAs involve complicated emissions modeling and choices about how to model environmental impact and sort and weight indicators. Other IT companies have told me they have also done LCAs on their climate footprints. Many are struggling to get accurate assessments of their suppliers' emissions. It's a difficult task. A laptop can have components from hundreds of different suppliers. Has Apple received verified emissions assessments from all its suppliers and their subcontractors in its global supply chain? Or did it use a simpler approach with generic industry data and estimates of carbon emissions?

Unless and until Apple as well as its competitors release actual LCAs and the assumptions they are based on, assessing leadership will not really be possible. Such detailed assessments are essential for investors and research oriented NGOs who seek to validate environmental performance claims. Consumers rely on these groups to validate industry claims.

The company's focus on reducing energy use during operation is welcome and it deserves credit for many actions taken to minimize product energy consumption. Apple says its Mac OS X operating system can even regulate processor activity between keystrokes while you type to save energy. It says it also reduced the power used in idle,

sleep and off mode sufficient to save 200,000 metric tons of CO₂ per million products over a four-year period.

But it would be helpful to know what assumptions were used about how often its products will actually be in those reduced power states. Also, electric power rates vary greatly by region; how was that accounted for? There is little discussion by comparison about efforts to reduce the energy or GHGs used to manufacture its products, an area - unlike consumer power usage -- where it presumably could have greater control.

Apple is also miffed that other companies get credit in green rankings for their forward-looking emission reduction commitments. As long as companies follow up on these commitments, I don't understand the concern. This line of thinking only serves Apple's famously secretive style of operation: make few future promises and announce achievements only after you have accomplished them.

Even though management says it doesn't make these kinds of commitments, sometimes it does. **As You Sow** filed a shareholder proposal three years ago asking Apple to improve its volume of takeback and recycling of old electronics. At a meeting between **As You Sow** and Mr. Jobs, the company made a commitment to triple the volume of takeback over five years. It put the commitment on its web site in 2007. So far, the company has met and greatly exceeded that goal.

It is commendable for Apple to at least disclose a summary of lifecycle impacts; that should focus attention on the fact that many corporate GHG reduction commitments to date have only addressed company operations and not the much larger supply chain emissions. This action could nudge competitors to discuss more about LCA work they have completed and disclose it. Ideally, the industry will adopt similar LCA measurement protocols so that more uniform assessments can be made.

Finally, it is important to note that higher quality recycling of e-waste can reduce carbon footprints. To the extent the IT industry and its recycling vendors can become more efficient at recapturing gold, silver, copper and other precious metals from old electronics, fewer minerals will need to be mined, reducing GHG emissions associated with the raw materials portion of the product life cycle. The Electronics Industry Citizenship Council, a consortium of big industry players committed to improving working and environmental conditions, has taken note of this climate/recycling link and I hope it will find ways to act on it next year.

Conrad MacKerron is Director of the Corporate Social Responsibility Program at As You Sow Foundation, which uses dialogue and shareholder advocacy to promote better social and environmental policies at publicly traded companies. He is author of *Business in the Rainforests: Corporations, Deforestation and Sustainability* and former Washington Bureau Chief for *Chemical Week*.