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Microsoft's Carbon Neutrality Commitment and Internal Carbon Fee

In May 2012, Microsoft announced a companywide commitment to become carbon neutral beginning with its fiscal year 2013 (which started July 1, 2012). The commitment—to achieve net-zero carbon emissions for Microsoft's data centers, software development labs, offices, and employee air travel—is accompanied by an internal carbon fee charged to business groups as an accountability and carbon reduction fundraising measure. From interviews with TJ DiCaprio, Microsoft's Senior Director of Environmental Sustainability, and using information from the Microsoft whitepaper titled "Becoming Carbon Neutral," the Association of Climate Change Officers (ACCO) has assembled a case study looking at some of the strategies and best practices used to build Microsoft's commitment.ⁱ

Background

Microsoft's new carbon neutrality commitment was aided by previous sustainability accomplishments and a supportive corporate culture already in place. Rob Bernard, Microsoft's Chief Environmental Strategist, leads Microsoft's sustainability vision and is responsible for driving environmental policy throughout the organization. As awareness of climate change and sustainability in the corporate world has risen in recent years, Bernard and his team have worked to help Microsoft become a leader in adopting environmentally responsible practices. DiCaprio describes the culture of the organization as truly supportive of sustainability and environmental responsibility. And while corporate responsibility has always been part of Microsoft's culture, DiCaprio has observed that awareness of climate change as a corporate responsibility issue has increased greatly in recent years.

From this culture, there have emerged some climate change accomplishments that helped lay the groundwork for the current carbon neutrality commitment. In 2009, Microsoft CEO Steve Ballmer announced the goal of reducing Microsoft's per-revenue carbon emissions by at least 30 percent of 2007 levels by 2012. Despite challenges from growing data center energy usage due to Microsoft's increasing investment in cloud computing, Microsoft was able to accomplish this reduction and received recognition from the EPA in 2012 for being the third largest organizational purchaser of renewable energy in the United States.ⁱⁱ The achievement of Microsoft's initial emissions reduction goal set the stage for Microsoft to pursue greater emissions reductions in 2012, which eventually led to the carbon neutrality commitment announced in May.

ⁱ Microsoft Corporation. "Becoming Carbon Neutral." May 8, 2012. <http://aka.ms/carbonwhitepaper>

ⁱⁱ U.S. Environmental Protection Agency. "EPA Releases List of Top 50 Green-Powered Organizations." April 23, 2012. <http://yosemite.epa.gov/opa/admpress.nsf/bd4379a92ceceac8525735900400c27/2130cec25fb8f73e852579e90058a8d1!OpenDocument>

Motivation

Microsoft's carbon neutrality commitment—and the supporting internal carbon fee—was a significant commitment for the organization to make. Like any business decision, the initiative was evaluated on how it would impact Microsoft in a number of dimensions. For Microsoft, there were clear financial benefits to the commitment. With cloud computing expected only to increase Microsoft's energy costs and consumption, the carbon neutrality commitment and the internal carbon fee will incentivize business groups to further increase their energy efficiency. One of the goals of the carbon neutrality commitment and fee is to help increase the supply of affordable renewable energy by increasing demand for clean energy. In addition, the increased focus on energy and carbon is designed to help accelerate the drive for business groups and individuals to come up with innovative energy solutions. As Microsoft is necessarily involved in the growing sector of cloud computing and its high energy consumption, the energy savings achieved through efficiency measures spurred by the carbon fee will create increasing potential for financial benefits down the road.

The compelling non-financial benefits of carbon neutrality also played an important role in the decision to make the commitment. For Microsoft, part of corporate citizenship means doing work to respond to global challenges. Viewing climate change as an important global issue, Microsoft saw any decision to drastically cut or eliminate its own contribution to the problem as a logical extension of being a responsible corporate citizen. Microsoft views the commitment as simply “the right thing to do.”ⁱⁱⁱ Through the internal carbon fee, the commitment also reinforces Microsoft's culture of sustainability by embedding awareness of carbon emissions in the actions and decisions made by employees.

Microsoft hopes that, beyond reducing carbon emissions from its own operations, this commitment will serve as an example to other corporations to help them to pursue aggressive carbon reduction schemes of their own. The carbon commitment is intended to be not “just a feel-good environmental story,” but instead something that will help drive change and innovation in other businesses to facilitate the transition to a low-carbon economy.^{iv} Microsoft aims to demonstrate that innovative tools such as an internal carbon fee can be practical and effective, generating revenue for carbon reduction projects while benefiting the business as a whole. Additionally for Microsoft, if the carbon neutrality commitment helps Microsoft to be viewed as an industry leader on climate change issues, it will potentially create branding and competitive positioning benefits as well.

Technological innovation is one of the foundations for the carbon neutrality decision. Microsoft firmly believes that technological innovation will be essential in the transition to a low-carbon economy. Using Microsoft collaboration technology will allow a reduction in employee air travel, and virtualization and other improvements in technology will enable more efficient server utilization in data centers. New technology will also allow Microsoft to be able to track and manage emissions better than ever before. In 2012, Microsoft decided to begin using the CarbonSystems cloud-based Enterprise Sustainability Platform, giving the company access to detailed data and management tools for the carbon commitment.

ⁱⁱⁱ Kevin Turner, Microsoft COO. May 8, 2012. “Making Carbon Neutrality Everyone's Responsibility at Microsoft.” The Official Microsoft Blog. http://blogs.technet.com/b/microsoft_blog/archive/2012/05/08/making-carbon-neutrality-everyone-s-responsibility-at-microsoft.aspx

^{iv} Josh Henretig, Microsoft's Director for Environmental Sustainability. June 15, 2012. “Microsoft leading the way with an internal carbon fee.” The Guardian. <http://www.guardian.co.uk/sustainable-business/microsoft-internal-carbon-fee>

Design and Approval Process

DiCaprio built support for the carbon neutrality commitment and internal carbon fee by conducting what she describes as a cross-corporate movement to demonstrate environmental responsibility. The first step in the process was holding individual meetings and reaching out to people at Microsoft to gather support and solicit feedback. Getting internal stakeholders on board was a necessary first step, as the network of supporters that DiCaprio initially recruited had the ability to exert influence in many more areas than DiCaprio could on her own.

It was also important for DiCaprio to strategically choose who to reach out to initially. The first groups she contacted were members of the primary revenue-producing business groups at Microsoft, employees in charge of operations and facilities, and stakeholders she knew to be champions of sustainability causes. The primary revenue-producing business groups at Microsoft represent a large portion of the company, so it was essential to talk to them and incorporate their feedback to make sure they were on board with the carbon neutral commitment. Having the support of these business groups gave the proposed commitment real legitimacy by demonstrating that there were experienced leaders across Microsoft who saw the commitment as a smart business move. It was beneficial to get employees working in operations involved early on as well, as the energy efficiency measures would affect their day-to-day work the most directly and their feedback was useful in designing an effective program. Finally, targeting employees who were known to be proponents of environmental sustainability allowed the fledgling commitment to quickly and easily gain some momentum and support in its early stages.

The approach used to talk to these stakeholders helped win support for the commitment. DiCaprio approached stakeholders with individually tailored messages of how each business group would be affected by the proposed carbon neutrality commitment and carbon fee. This strategy allowed stakeholders to see the financial costs and benefits of the plan for their specific business groups and envision how the commitment would fit within their own business strategy. Also, it was crucial to receive and incorporate feedback from each of these meetings and evolve the carbon commitment to fit the needs of all the business groups.

The key breakthrough in making the carbon fee a reality was working closely with the CFO's office. Having the CFO's office involved in the commitment was necessary for implementing the carbon fee in a simple and usable way over the entire complex organization of Microsoft. The carbon fee was always envisioned as part of the carbon neutrality commitment as a way to create accountability and fund renewable energy projects, but having the CFO's office on board allowed it to be easily incorporated into existing corporate billing structures. Eventually, the carbon fee ended up being just added as a line item for business groups. The simplicity of the system is one of the reasons DiCaprio and Microsoft think the carbon fee will be very effective.

Finally, in addition to gathering input from internal stakeholders, DiCaprio also looked to external parties for guidance in developing a successful strategy, including customers and a variety of experts in the environmental sustainability field. For example, by building relationships with members of ACCO, DiCaprio was able to solicit their input as she evolved Microsoft's vision for its carbon neutrality commitment and the internal carbon fee.

Future Progress

While the carbon neutrality commitment and carbon fee are commendable accomplishments, they are just the beginning for Microsoft. DiCaprio believes that the carbon fee gives Microsoft an excellent

foundation from which to pursue progressively bolder carbon reduction initiatives. With the carbon neutrality commitment established, the next evolution of the process is improving *how* Microsoft is achieving that neutrality. Across the company, there will be a focus on continuing with (and building on) existing efficiency measures, introducing new efficiency targets, and making ongoing investments in software-enabled efficiency gains. Microsoft aims to use money raised from the carbon fee to invest in more efficiency and renewable energy projects, which will help reduce the need for purchased offsets as an emissions reduction tool. Also, the company is beginning to incorporate renewable energy onsite at data centers to reduce those facilities' carbon emissions and provide resiliency. The carbon fee itself will also evolve. The current carbon pricing system is based on Microsoft's cost to purchase renewable energy and offset carbon, but if the carbon fee performs well, this pricing scheme could become bolder to incorporate other carbon-reducing costs. Eventually, it may even be possible for Microsoft to become carbon negative, offsetting more carbon than it is emitting.

Microsoft hopes that it can lead on this issue and that practices such as the carbon fee will be adopted widely in other corporations. "The biggest impact of Microsoft's commitment at scale would be if it provided a demonstration of the feasibility and effectiveness of an internal carbon fee, giving other organizations and sustainability professionals confidence that such a system can succeed," DiCaprio explained. It will be important to watch the success of Microsoft's carbon neutrality commitment (and approach) in the years to come to see if it can provide an effective blueprint for transitioning to a low-carbon economy.

About TJ DiCaprio



As Sr. Director of Carbon and Energy, TJ is responsible for designing and managing Microsoft's new carbon neutral policy with internal carbon fee model that drives accountability while supporting efficiency, renewable energy, and carbon offset projects. TJ has worked for Microsoft for 15 years, and has over 25 years of experience in the technology industry evolving global business models. She brings an educational background of Environmental Studies and Energy from the University of California at Santa Barbara and graduate work in Sustainable Business and Renewable Energy from Marylhurst University, as well as a history of policy leadership to the role.

On a personal note, TJ is a certified pilot and enjoys sailing. She has led several expeditions piloting aircraft across the Americas and South Africa, and sailed extensively off the coast of North America, French Polynesia, Croatia, and Turkey. TJ is an active member of the Explorer's Club and Keystone Founding Member of the Santa Barbara Maritime Museum.

About ACCO

The Association of Climate Change Officers is a 501(c)(3) non-profit membership organization for executives and officials worldwide in industry, government, academia and the non-profit community. ACCO's mission is to advance the knowledge and skills of those dedicated to developing and directing climate change strategies in the public and private sectors, and to establish a flexible and robust forum for collaboration between climate change officers. For more information about ACCO, please visit www.ACCOonline.org.

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