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TRACKING *your* CARBON FOOTPRINT

With the presidential candidates and Governor Kaine talking about reducing emissions, Noblis has developed software that measures a company's impact on the environment. Could this go national?

by ART SWIFT

When historians years from now study the America of 2008, two of the themes that will emerge are the sinking economic situation and the debate over energy consumption. In 2008, companies are realizing how energy is tied to their bottom line. Quite simply, the less energy a company expends, the more money that can be available in an economy that teeters on the brink of recession. It is an issue that has been raised by Governor Tim Kaine and presidential candidates John McCain and Barack Obama.

Noblis, a nonprofit science, technology and strategy organization in Northern Virginia, is attempting to show how a company's "carbon footprint" can be reduced. According to www.carbonfootprint.com, a carbon footprint is the "measure of the impact human activities have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide." While most of the attention to carbon footprints has been tied to the environment, and specifically global warming,

now with high energy prices reducing one's carbon footprint could spur economic development.

"Reducing commuting saves energy, as does using less electricity in your business," said Robert Wassmann of Noblis. "We're trying to demonstrate how there are ways to measure your carbon footprint and this can help all companies in the long run."

Wassmann is spearheading Noblis' beta test to measure carbon footprints. The beta test was launched this past July and the final product is expected to be rolled out officially in September. A beta test is used to test software before its release, to get user feedback and to work out any software bugs. This Noblis software was not available to the public during the beta stage, but 12 organizations did sign on to test the software, including the Northern Virginia Technology Council.

"Our beta testers are from all over the spectrum," Wassmann said. "We have nonprofits, trade associations, defense contractors, state and local government agencies and some representatives from industry."

DAVID KIDD

These testers use Noblis' web-based software application to track their carbon emissions and determine their footprint. For example, a user of the tool can log the amount of their company's purchased electricity, the amount of fuel they have purchased and the amount of business travel of their employees. The tool uses emission coefficients for energy sources in order to measure an individual footprint.

At this stage, the Noblis tool is targeting professional services and the transportation sector, not industrial manufacturers.

"In Virginia we have many smaller companies, especially technology companies that can benefit from our program," Wassmann said. "One of Governor Kaine's primary objectives is to reduce the carbon footprint and this may help achieve those goals. It may also

make forecasts and companies may track their progress over time.

Many companies and organizations in Northern Virginia have data centers. There are many tools that exist for optimizing data center energy consumption, but the Noblis tool is not designed specifically for that. However, a user can include their company's data center as part of the overall analysis.

One of the most pressing challenges to the strength of Northern Virginia's economy is what's been labeled as "the transportation crisis." With too many commuters packed onto roads with too few lanes, residents statewide are searching for solutions.

"The tool looks at commuting in a sophisticated way," Wassmann said. "We hope that when users see how much gasoline they use, how much they're spending for it, that will lead to change. Employees may feel like they should live closer to work or do more telecommuting."

Wassmann hopes that as more companies sign on to use the tool, it will become a component in their business planning on a yearly basis. He said the tool could be used to re-analyze data yearly to see the changing impact on emissions. The cumulative impact of carbon emissions and any resulting savings could bring tangible economic benefits to those using the tool.

This year's U.S. Presidential nominees have both committed to reducing the country's carbon footprint in order to combat global warming. Wassmann said that momentum makes the Noblis tool a trailblazer for the country.

"Down the road this may be mandatory," he said. "Companies may be required to register their carbon emission data. By getting in on this now, partici-

pants will be ready to register their carbon footprint and be ahead of the trends prior to regulation."

There are already some areas in the country that are considering requiring this sort of registration. For now, Wassmann is hoping Northern Virginia will set the pace for the rest of the Commonwealth.

"Governor Kaine and the members of the Virginia Climate Change Commission are very interested in results that can be generated by tools such as this," Wassmann said. "We are confident our beta test will be successful."

The Northern Virginia economy continues to remain strong, even during this economic downturn, precisely because of innovations like the Noblis software tool. Similar emissions developments may further the gains the region has made in the last decade, as translating reductions in carbon footprints into liquid capital strengthens as a theme in the next decade. **nvtc**

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help address traffic congestion for the state.”

Wassmann said Noblis' program is not the only carbon-footprint analyzer in existence but what differentiates his software is that Noblis has an enterprise focus, and the ability to analyze at an aggregate level. An organization like NVTC can use the tool to aggregate data for all its members.

An organization can glean several pieces of information in using the tool. A company can inventory carbon emissions, look at and analyze different scenarios for affecting carbon emissions and set up goals as they plan for carbon-emission reduction.

"There's a return on investment calculator," Wassmann said. "People can see if they buy energy-efficient light bulbs and flat screen monitors how they reduce their footprint and save money in the process. I think that part is incredibly useful."

Wassmann notes that the tool has some analytical capability. Users do not have to make guesses about how to reduce; the tool will

NVTC Green Technology and Energy Task Force Survey: **The Results Are In**

With "Green" being such a hot buzzword in the mainstream media these days, NVTC decided to see how its member companies are implementing green strategies to reduce emissions. More than 200 companies responded to an NVTC survey last spring, and the results show there may be a communications problem with what "green" really means.

"We've found there's a gap between what people know and what they want to achieve," said Allison Glatfelter, public policy manager at NVTC. "The survey shows an education gap. In time this could be changed."

When asked what areas of interest companies had when it comes to greening, most respondents said they were interested in reducing energy costs.

"Energy costs are expensive and it is in the press a lot," Glatfelter said. "Recycling came after reducing energy costs for that particular question."

Yet reducing toxins resulting from operations did not score high as an area of interest, Glatfelter added.

Even with all the messages about "green" in the media, 55 percent of respondents said their companies have not established green goals, compared to

31 percent who said their companies have. Twelve percent said they did not know if their companies had established green goals and the rest did not answer.

"I see this as: people aren't green or their companies aren't telling their employees what they're doing," Glatfelter said. "Most people don't realize that recycling achieves green goals."

When respondents were asked which green initiatives their companies were undertaking, recycling popped up again, this time as the number one answer. The next highest answer to that question was telecommuting, followed by public transportation.

"Some companies are urging their employees to use public transportation," Glatfelter said. "This is limited though because of limited public transportation options in Northern Virginia."

In a pair of questions, it becomes more obvious that employees don't see their companies as green, at least not yet. When asked, "Is your company positioning itself as green?" 53 percent said no, 29 percent said yes and 15 percent said they were not sure.

The uncertainty rose when respondents were asked if their companies were

entering green markets. Forty percent answered no, 32 percent said yes and nearly a quarter, 24 percent, said they were not sure.

"Energy is such a cost issue that companies are clearly making an effort, but a lot of employees don't know or realize what's going on," Glatfelter said.

Respondents were then asked to select the top three environmental or sustainability issues relevant to their business that, if changed, could affect their costs and reduce their environmental liabilities. Energy efficiency topped this list at 30 percent, followed by logistics efficiency (e.g., transportation, business travel) at 22 percent and waste reduction or increase of reuse or recycling came in at 21 percent.

Finally, respondents were asked to name the issues they would like to learn more about.

"Our survey showed that people are hungry for information on greening," Glatfelter said. "Getting more information on 'greening' data centers was the biggest response, and after that people wanted to learn about programs for learning best practices, along with ways to reduce their companies' carbon footprints."—**Art Swift**

