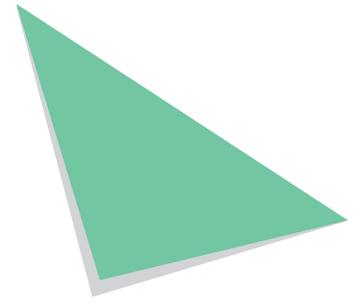# Two Sides Facts

Are "Go Green - Go Paperless" claims supported by sound and verifiable evidence?
Understanding generic calculators, LCAs and risks to corporate reputation

Many leading companies, including banks, utilities and telecommunications providers, are urging their customers to go paperless with claims that electronic communications save trees, are "greener", or otherwise protect the environment. Because these claims lack specificity and rarely cite substantiating data while implying an environmental benefit, they fail to meet the basic tests for acceptable environmental marketing as outlined in most published laws, guidelines and standards.

Both electronic and paper communications have environmental consequences. The impact of each is broad and complex, and cannot be well understood without careful examination of a specific use scenario. A responsible approach to understanding the environmental impact of each of these mediums would reflect these specifics while also seeking to reduce the footprint of both.

The different roles of generic and full Life Cycle Assessments

When questioned, many of the companies that utilize these claims cite generic life-cycle assessment (LCA) studies or calculators that rely on industry-wide data to draw broad conclusions about the environmental impacts of paper. By design, a generic or streamlined LCA does not account for potential variations in the life cycle of paper and ICT (information and communication technologies) or user behavior. Because of this streamlined approach, they are generally more affordable and can be completed more quickly than a full LCA. For this reason, streamlined LCAs and calculators are often made publicly available.

According to the ISO 14040 and 14044 standards, full LCAs should be peer-reviewed by a multi-disciplinary team of subject-matter experts and include detailed sensitivity analyses. These are steps that generic LCA calculators do not take.[1] Given the importance of specifics and the scope of variation, it is clear that generic calculators represent only the beginning of a process.[2]

Why a generic LCA is not designed to substantiate a marketing claim

Simplistic calculators or generic LCA's may lead to the wrong conclusions due to the wide range of variability in assumptions built-in to the studies and available data, from industry averages to company-specific and mill-specific data. When discussing the environmental footprint of invoices and statements, whether in paper or digital form, the LCA methodology requires careful thinking and expert input on specific supply chains to ensure substantiated results.[3] For example:

- **Specifics matter.** A company delivers a certain volume of invoices and statements to its customers. Where, when and how these invoices are delivered is important. An underutilized computer network delivering a small volume of digital statements could in fact increase a corporate footprint. An end-user printing a digital statement would also increase the footprint of that statement. Consider the example of the Australian company Telstra[4], which conducted a review of its own statements and invoices. Unless 70% of its users went digital, the overall environmental footprint of their corporate invoices and statements, both paper and digital, would not shrink. This is because Telstra's computer servers use a fixed amount of energy, regardless of usage.

- **Generic LCAs often use weighting for simplicity.** Weighting assigns more or less importance to a particular environmental load, like the recycled content of paper for example. This results in LCAs that promote the "green" attributes of a product base of one category, while under-emphasizing other impacts like energy use, carbon storage, or land-use patterns.[5]

- **The scope matters.** Comparing a paper invoice to a digital invoice is not an equivalent comparison. The paper invoice is a product that can be accurately and clearly defined. The digital invoice, in contrast, is an experience that requires computers, data centers, and telecommunication networks.[6] While a single digital invoice has a small-footprint, an invoice relies on a massive and complex global digital architecture. Determining what percentage of the digital ecosystem to attribute to an invoice is a subjective exercise that can misrepresent the footprint of a digital invoice. Some estimate that the global digital network uses 10% of global electricity,[7] as more and more consumers use multiple devices to connect to the Internet.

Best practices for environmental marketing

- When an LCA is used to support an environmental claim, the FTC has determined that an LCA should be "conducted and evaluated in an objective manner by qualified persons" and that the LCA should be of "sufficient in quality and quantity based on standards generally accepted in the relevant scientific fields."[8]

- The use of generic LCA calculators may not meet the burden of proof required by green marketing guidelines developed by the US Federal Trade Commission (FTC) in the US, the Advertising Standards Authority in the UK[9], and other regulatory bodies.[10] While the FTC Guide on Environmental Marketing Claims does not require LCAs to support environmental claims, it does state that "it is deceptive to misrepresent, directly or by implication, that a product, package, or service offers a general environmental benefit." In the UK, the Committee of Advertising Practice[11] states in rule 11.4: "Marketers must ensure claims that are based on only part of the advertised product's life cycle do not mislead consumers about the product's total environmental impact." Equivalent advertising regulators in most countries have issued similar guidelines.

The environmental and social attributes of print and paper

- **Paper is recyclable and based on a renewable resource.** Paper is the most recycled commodity in the world with recovery rates of 65% in the US and 72% in Europe. Sustainably produced forest products, such as paper, can be a wise choice compared to other non-renewable materials.[12] They capture carbon – through photosynthesis, most trees take carbon dioxide out of the atmosphere and replace it with oxygen, mitigating greenhouse gas emissions. In sustainably managed forests, the carbon released through harvesting is offset by that which is taken up through regeneration and re-growth, making these forests carbon neutral.[13] In North America and Europe, forestry is highly regulated and forests are replanted after harvesting, ensuring the long-term preservation of forest cover. Over the last 100 years, forest cover in the United States has remained nearly the same – holding steady at 750 million acres – while the population has tripled.[14] In Europe, forest cover has similarly expanded, growing 30% over the last 50 years.[15] The forest and paper industry is also continuously striving to improve, partnering with governments and environmental organizations to reduce illegal logging and encourage the certification of forestlands.[16]

> **50% of US respondents and 58% of UK respondents don't believe, feel misled or question "go green – go paperless" claims used to promote e-billing.**
> Two Sides, 2013 (conducted by Toluna Inc.)

- **The choices of people.** Consumers can chose to print a digital statement or invoice. At-home printing is much less efficient than industrial-scale printing, and can increase the actual footprint of a company's statements and invoices. A recent Two Sides consumer survey in the US[17] and UK[18] found that:
  - 34% of US respondents and 38% of UK respondents are 'home printers'.
  - 64% (US) and 60% (UK) say they would not choose a company that did not offer a paper bill option.
  - 72% in the US and 71% in the UK believe that print and paper is a sustainable way of communicating when produced and used responsibly.
  - 50% (US) and 58% (UK) don't believe, feel misled or question "go green – go paperless" claims.
  - 84% (US) and 87% (UK) also agree that e-billing and e-statements are being promoted to save costs.

A recent Infotrends survey conducted on behalf of Consumer for Paper Options also found that 80% of US respondents did not think it was appropriate for companies to cite environmentalism when it is not their real motive.[19]

Beyond the fact that most consumers want the option of paper bills, as many as 30% of Americans are not online including 65% of seniors who don't own computers.[20] Forcing people to go paperless or pay added fees for paper bills and statements disenfranchises a significant part of the population.

- **The sources of paper.** Not all paper is created equal. The environmental footprint of paper depends on how environmental impacts are minimized and controlled over the product life cycle, including raw materials, forest management, pulp and paper mill environmental performance and transportation. This varies depending on region of the world, company and manufacturing facility.

Print and Paper have a great environmental story to tell

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The digital lifecycle

The direct impact of ICT products and services replacing paper is far from negligible, and the trade-off between the two "technologies" depends on conditions such as use frequency, source of energy, end-of-life management of the products, etc.[21] In a comparison of the environmental impacts of e-media and paper products, Bull and Bull[22] noted that "IT…faces a greater challenge [than paper products] given its dependence on non-renewable e-sources, the pace of innovation and product replacement, and the difficulties associated with E-waste." Conversely, they noted that "forestry has the potential to be a self-sufficient and renewable industrial system, and that best-case scenarios that exist with today's technology and management are very green relative to the benchmarks of industrial ecology." Examples of the environmental impacts of electronic communications have been compiled by Two Sides.[23]

As the population and resulting demand on resources continues to grow, a sustainable future will necessarily depend more heavily on the use of renewable and recyclable products and less on non-renewable materials and the use of fossil fuel energy. Because the responsible manufacture and use of print and paper contributes to long-term, sustainable forest management in the US and Europe, and helps mitigate climate change, it will remain an important element in our media mix. It will also continue to provide social and economic benefits that contribute significantly to the well-being of businesses and citizens alike, while co-existing and complementing electronic communications.

> **Specifics matter. An underutilized computer network delivering a small volume of digital statements could increase a corporate footprint... as well as an end-user printing that statement.**

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Print and Paper have a great environmental story to tell

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