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Ask the Experts

by Steve Rice & Richard MacLean
May 2002

Key Performance Indicators for Environmental Reporting

Also this month:

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Should a single global standard for environmental reporting be implemented? If so, what are the most important performance indicators to be reported?

Steve: The question implies that a single standard would be appropriate for all organizations, companies and industries. There are at least three major problems with this “one size fits all” approach.

First, there are many different types of organizations, operating structures and measures of

success for a single standard to address fairly. While it would provide a faster and cheaper way to compare performance, such assessments could end up being meaningless because there would be little or no fact-checking and in-depth analysis to back up their conclusions – the information reported would be taken at prima-facia value. Recent attempts to reduce the costs of evaluating environmental reports have already led, I believe, to the production of marginal, confusing and misleading assessments.

For example, a few months ago a well-known investment advisory service asked me to do a 'credibility check' on a series of assessments that they were preparing on companies with leading environmental and sustainability positions. I found many of the reports to be highly biased because they had been based on the companies' environmental reports, web sites, press releases and cursory interviews with public relations staff, rather than in-depth interviews and critical analyses. As a result, the assessment reports were misleading at best and inaccurate at worst.

In two cases, the successes touted in the assessments were actually failures. One company's product had been a financial disaster and was quietly withdrawn from the marketplace following a wave of initial publicity. Another company's 'achievement' had never produced a pound of product and the unit been shut down and dismantled two years ago. The researchers never bothered to discover these facts. Equally misleading was the assessment on another company that has been actually *underplaying* its hand – silently developing competitive advantage, though not publicizing it so to keep their competition from learning about what they are doing.

The second problem is that a single global reporting standard would require global consensus. That simply isn't going to happen. Standards are influenced by too many organizational, political and economic drivers. In addition, the multitudes of Non-Governmental Organizations (NGOs) are committed to developing their own reporting frameworks; they are unlikely to write themselves out of the picture. They compete for publicity and grant monies just as companies compete for customers and market share.

Thirdly, a single reporting standard may also create the expectation for environmental reporting by NGOs. After all, a single standard should apply globally to all organizations and corporations, not merely the tax-exempt ones. In addition, NGOs would then also be held accountable for how much their activities and programs improve overall environmental performance. On the other hand, while recognizing that this new accountability could strike fear into many NGO leaders, it could also motivate the more forward-thinking ones to distinguish themselves from their market's competition – a key rationale for environmental reporting.

The simple solution is this - credible environmental reports, just like credible financial reports, help people and investors make more informed and accurate decisions. While standards, whether voluntary, national or global, may increase the potential for credibility, they are surely no guarantee. Those who produce such reports must be credible, thorough, accurate and consistent. At the same time, readers, users and researchers must assess them with a knowledgeable and critical eye. If you aren't convinced of the need for credible company reporting, read the April 29th edition of Business Week magazine, especially the Editor's

Memo on page 9 and the Editorial on page 130.

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Could ISO become the future global reporting standard, instead of the GRI?

Richard: It could, if the International Standards Organization (ISO) decides that there is a need for a standard. The "place holders" for an environmental reporting standard already exists under the ISO 14000 umbrella. In addition, in April ISO released the report "The Desirability and Feasibility of ISO Corporate Social Responsibility Standards" calling for comments on the viability of a new standard. The report was developed "in light of increasing worldwide consumer and public interest . . . on the social responsibility leadership of companies."

There have been more than thirty reporting standards and guidelines over the past twenty years, but the Global Reporting Initiative (GRI) is the undeniable leader today. Its stature was increased at an April United Nations event marking the launch of GRI as an independent global institution headquartered in Amsterdam. What many do not realize, however, is that the GRI is not a standard but a voluntary guideline. This is evidently clear in the draft "*2002 Sustainability Reporting Guidelines*."

Its voluntary nature also extends to verification. The GRI's Verification Work Group states, "There has never been any intention to prescribe standards or procedures to be followed by verifiers or assurance providers, nor how such persons should be credentialed."
From a practical standpoint relative to how it is used, the GRI is the governing standard to which more and more companies are subscribing. GRI will be the dominant player in the foreseeable future, but if ISO decides to move forward on a standard, the landscape could radically change. While a new ISO standard may not center on reporting, by the mere fact that it would specify metrics and "transparency practices," its net effect would be equivalent to a reporting standard.

My intuition tells me that if ISO decides to go forward and if GRI and ISO do not reach an agreement on which organization is defining reporting practices, industry may immediately gravitate to an ISO standard. GRI has its roots in CERES, an "activist organization" not widely trusted in business circles. Even as an independent institution, there may still be concern that the organization is moving too fast or too extreme. ISO, on the other hand, is already well entrenched, indeed, business management is very comfortable with ISO-type standards.

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What should I know about installing a geothermal energy system for my home?

Steve: Like a deep cave, the temperature of deep groundwater remains fairly constant. The principle behind a geothermal heat pump system is that when the building temperature is warm, deep water is pumped up, the heat of the building is extracted, and the water is pumped back down into the deep water reservoir. Conversely, when the outside temperature is colder than the water temperature, the reverse occurs. Because the water temperature may be rather temperate, not warm, some additional heating may be needed during the colder months to make up for any net thermal losses. Also, unlike a drinking water well, two wells are needed to maintain a circulating water flow.

A geothermal heat pump system should not be confused with the other kind of geothermal energy system that uses even deeper wells (2 – 6 miles) to tap into heated geological zones to obtain hot water for heating and/or steam to produce electricity.

In general, the high cost to drill two deep wells typically limits the use of geothermal heat pump systems to commercial offices and large apartment buildings, though not always. Also, electricity is still needed to power the circulating water pumps and any forced air distribution fans.

Additional information on geothermal energy systems can be found, of course, here at www.Greenbiz.com by searching on “geothermal”, the Department of Energy’s Geothermal Energy Program and EPA’s Energy Star geothermal program. You may also want to check out the Renewable Energy Policy Project and the Geothermal Heat Pump Consortium’s National Earth Comfort Program

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Do you think “Janitors Insurance” has affected management push for improved safety programs?

Richard: Obviously, you have been reading the Wall Street Journal. There has been a recent series of articles on the widespread but little known practice of companies taking out life insurance polices on workers at all levels, including the lower ranks. It offers companies tax-free investment buildup and provides tax-free death benefits when workers, former workers or retirees die.

It was originally designed to insure against the death of key employees, under the rationale that their loss would significantly affect the company. Before the 1980s state insurance laws specified that the person or entity had to have an “insurable interest” in the individual, but after industry lobbying this restriction was liberalized considerably. Now companies in most states can insure any employee and not even tell the individual.

So we are left with a situation where “dead peasants” (another name for this insurance) are worth far more dead than alive to companies such as Dow Chemical, American Electric Power, Procter & Gamble, PPG, Olin, Nestle, Wall-Mart, and scores of others. There are

various moves afoot by the IRS and congress to crack down on this practice, but back to your question.

I doubt that it has influenced management's support for safety. Injured employees represent a tremendous cost to companies. Companies spend billions on worker compensation, medical and disability costs, not to mention lost productivity. Indeed, these costs are the financial justification for beyond compliance safety and health programs. It is an all or nothing proposition: either you do a stellar job at protecting employees from death, or you risk an even greater cost in the form of injury either on or off the job.

I suppose that if employers had the morals of Attila the Hun and no legal restrictions, they could treat workers like injured horses at the race track and just shoot them to collect. This statement may bring smiles to some (sounds like my company!), but let's face it, management would not even remotely consider putting workers at such lethal risk.

The real concern is the optics. If your company has "broad-based life insurance" (the technical name), you should openly discuss it with employees to put their concerns or misunderstandings to rest.

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I'm confused by the range of values I have found for the amount of carbon dioxide that an automobile produces every gallon of gasoline burned. What number should I use?

Steve: The exact value will depend on a variety of factors, including the combustion efficiency, the specific gasoline blend, and the altitude. I 'share your pain' regarding the wide variation in numbers provided in various tables and emissions calculators - my sources indicate anywhere from 19.6 to 32 pounds per gallon.

According to Mike Aucott, a research scientist with the New Jersey Department of Environmental Protection, "*Gasoline blends differ, but it can be assumed that gasoline is between 84% and 92% carbon by weight (i.e., somewhere between the carbon to hydrogen ratio of octane, C8H18, and benzene, C6H6). The percent carbon could be somewhat lower if the fuel contains oxygenates. It is safe to assume all the carbon will be converted to CO2 as today's cars emit very little CO, and what they do emit is turned to CO2 eventually in the atmosphere anyway. With a gasoline density of 2.7 to 2.8 kg (5.9 to 6.1 lb) per gallon, this translates to between about 5 and 5.7 pounds of carbon per gallon, depending on the percent carbon. Converting this to CO2, it becomes between 19 and 20.9 lbs per gallon. Compare this with the US DOE/EIA factor of 19.6 lbs/gal. The US DOE/EIA emission factors for gasoline and many other fuel types can be found in Form EIA-1605, Voluntary Reporting of Greenhouse Gases, Instructions, 1997, Appendices B and C.*"

So, we can say with reasonable confidence that the combustion of a gallon of gasoline produces between 19 and 21 pounds CO2. A good overall number to use is probably 20 pounds per gallon.

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How much material was recycled at the 2002 Winter Olympics?

Steve: I spoke with Shannon McCarthy of the Salt Lake Organizing Committee. She states that out of the 824 tons of material received at the materials recovery facility, 309 tons were recycled, 484 tons were composted and 31 tons were landfilled. This equates, she says, to a 96.3% total recycling rate.

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