



How GREEN should our valley be?

Implementing “green” procurement policies infers balancing choices

by Stephen Bauld and Kevin McGuinness

FUNDAMENTALLY, A GOVERNMENT purchasing department should ensure that it gets best value for the money it spends, to the extent that doing so is consistent with the strategic initiatives of the government as a whole.

Environmental protection is costly. For governments, decisions regarding environmental initiatives should ultimately be made by political decision makers. Sadly, the implementation of environmental policy frequently illustrates the glaring gap between high-level policy statements and day-to-day organizational operations decisions.

Supporting environmental causes seems like a good idea. Accordingly, many governments adopt “green” purchasing policies that give little thought to the choices that such policies will require them to make. For instance, one Ontario municipality directs its staff: “To implement a system of ordering, purchasing and resource consumption which results in the least environmental impact, including the purchasing of recycled and recyclable products and the purchasing of products which are produced through the use of recycled renewable resources.”

Sounds good, but difficult to apply in practice.

Is it more important to recycle, or to reduce overall environmental impact? If it is the latter, who determines that impact? Further, does one look only at the specific purchasing transaction, or does one consider its wider implications? Numerous studies have cast great doubt on claims that recycling usually saves trees and other resources, reduces energy consumption, reduces pollution, creates desirable jobs, or saves money. The approach taken can lead to very different purchasing decisions.

Like everyone, most governments operate in a world of limited funding. As well,

municipalities compete against each other to secure business and other investment. High taxes are rarely an incentive to invest. Low taxes mean insufficient money to purchase everything that (in a cost free world) the government would. Scarce funding necessitates difficult choices – taxes used to retrofit a water treatment plant to remove trace amounts of heavy metals cannot be used to improve local social or bus services.

Even competing environmental goals must often be traded against each other. For instance, some years ago one municipal council – due to concerns about small particulate matter (PM) as a form of air pollution (it has been linked to asthma rates) – decided that in the future it should purchase equipment designed to abate PM emissions. However, when the municipality decided to purchase street cleaning equipment, staff discovered that PM abating machines were twice the cost of those of more traditional design, and that there was little proof that the PM emission reduction actually occurred in real operating conditions. Should the PM reducing option be followed in such a case?

Cost is not just a budget matter for one department; it can have wide implications. For example, if a city needs eight sweepers, and the cost per sweeper is \$200,000 more for the high tech model, meeting that cost will place a financial drain on other programs. One could buy only half the units needed, but this means that four old models would then stay on the street. Not only do older units generally operate “dirtier” than even new low-tech equipment, but they also consume more fuel. Older equipment also tends to present an element of safety concern and operational reliability – something to keep in mind when looking at cuts in fleet replacement as a possible means of producing a balanced budget.

In principle, cost-benefit analysis (CBA) affords an understanding of the necessary choices different policies imply. Such an analysis should not be the exclusive basis for decision; but it allows decision makers to assess the tradeoffs implicit in allocating resources to one thing over something else. CBA forces decision makers to confront the specific implications of their decisions.

Unfortunately, such an approach is difficult to apply in the environmental context. CBA requires tradeoffs to be compared in monetary terms. This leads to the obvious objection that it requires us to “price” life or nature – something that many people find conceptually repugnant. However, the problem is actually deeper than this; in many cases, CBA calculations must be made relying upon rudimentary models of complex systems that are, for the most part, noteworthy more for their inaccuracy than their precision.

Worse yet, many of the figures used in any such calculation are no more than rough estimates, based on uncertain assumptions. Much of the benefit in fuel reduction is linked to the reduction of cost resulting from lower consumption. However, if all consumers employ the same approach, the price of fuel will go down. The benefit thus reduces. Some years ago, many municipalities shifted to natural gas powered buses on the basis



of a given ratio of price between natural gas and diesel fuel. When the ratio changed, the calculation was thrown off.

It is also difficult to estimate the duration of the environmental problem that exists. The generally higher prices of fossil fuels in recent years – and the political instability of many of the main sources of supply – has resulted in increased investment in the development of new technologies. If the costs of wind-generated and solar-photovoltaic electricity are brought down to the cost of hydro-electricity, then the demand for fossil fuels is likely to fall sharply worldwide. Many of the most promising environmental initiatives have long life cycles. If such new technologies emerge over the next five years, decisions based on the assumption that technology will not change over the next 10 to 20 years will obviously be thrown off. As the emergence of personal computers and cell phones demonstrated, there is no way of anticipating technological development with any high level of accuracy.

Another question concerns the reliability of the information available to decision makers. The manufacturers of environmentally “friendly” products are often the only source of information concerning the benefits that their products offer. Frequently, the benefits of using such products are over-stated, while the costs are blithely ignored. For instance, in the 1970s, governments subsidized the installation of urea-formaldehyde foam insulation in homes as an energy saving measure. In the 1980s, it was banned as a health risk.

When the first nuclear power electrical stations came on line in Britain in the 1950s, it was said that electricity would soon be “too cheap to meter.” Today, we continue to grapple with the problems (and cost) of decommissioning many such reactors, and storing their spent fuel. Low cost energy has never materialized. In a 1999 American study, the cost of hydroelectric energy was found to range from 2 to 8¢ per kwh. Coal generated

electricity cost from 5 to 6¢, wind from 5 to 8¢, and oil from 6 to 8¢. Nuclear generated electricity cost 10 to 12¢ per kwh. Only solar-photovoltaic generation was more expensive. According to the Congressional Research Service, from 1948 to 1994, nuclear utilities received, on average, 60 percent of all federal energy research and development expenditure. The cost of constructing nuclear facilities has almost always been vastly in excess of projections. To cite two examples, when Pacific Gas & Electric began building Unit 1 of its Diablo Canyon plant, the projected cost was \$445 million. By 1984, the final bill was \$3.75 billion. The cost of refurbishing Unit 4 of Ontario’s Pickering A reactors tripled over the course of carrying out the project, and return to service was delayed two years. Yet, despite all these problems, nuclear energy is again being offered as a low cost environmentally friendly option to the problem of greenhouse gases.

Another concern is that benefits at one location, may transfer into costs at some other location or at some other time. This is especially true with respect to the shift to so-called “clean” electricity, where the fossil fuel and nuclear generators required to produce such electricity are often remote from the point of use.

None of this is to say that environmental concerns are of limited importance, or that they should not heavily influence purchasing decisions.

Rather, when elected officials adopt cliché-riddled broad policy statements such as the one set out above, they need to provide more guidance to those who strive to make the policy work; particularly, there needs to be specific direction as to the manner in which decisions are to be made. In a democracy, where policies conflict, the reconciliation should be made by elected officials, not the bureaucracy. This is particularly true where implementing a given policy may result in a long-term financial burden that implies an adjustment to taxes. Ideally, elected officials need to confront directly the policy tradeoffs that environmental protection may require and provide procurement staff the direction and tools to implement them. *~*

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