

Energy Reduction Investment, Part II

Potential aspects of federal climate change legislation

By Walt Vernon

In the March/April 2009 issue of *FacilityCare*, the Greening Healthcare column promised to discuss various kinds of economic tools that the federal government may choose to enact in its pursuit of greenhouse gas emissions. Some within Congress are now saying that the proposed rules have no chance of passing, and others are saying these changes can wait until after the healthcare reform efforts. However, it is highly likely that a new regulatory regime is on its way, and leaders of organizations and people who deal with buildings will need to understand these new regulations and how they will impact the design, construction and operation of U.S. buildings. This article focuses on a very few of the more important elements of the recently released Waxman-Markey American Clean Energy and Security Act.

The most frequently discussed feature of Waxman-Markey is the cap and trade feature. Cap and trade is the shorthand name for a system of permits allocated by the government that allow various “emitters” of greenhouse gas to emit in quantities that fall within the allowances owned by the emitter. This kind of system purports to lower emissions through systematic and continuous reduction of the cap over time, forcing emissions down and the price to emit up. By allowing owners of permits to trade their permits, the system seeks to achieve the efficiency of enacting the least expensive reductions first, followed in succession by successively more expensive reductions. That is, the owner of the cheap reduction opportunity will be more likely to implement that reduction project and sell its permits than the owner of correspondingly expensive reduction options, who will be more inclined to leave its emissions where they are and to buy permits to emit. Thus, the emissions market will serve to ensure the least overall cost to achieve the required reductions.

Aside from the political tug-of-war over the details of such a plan, any such plan will need to deal with a host of complicated issues. First is the question of how to allocate the emissions permits. President Barack Obama first proposed to auction the permits (as was done in the RGGI program in the Northeast U.S.). This method of allocation can raise significant government revenues, and experience in Europe has shown that such revenues, if invested in subsidizing energy- and emission-reduction projects and thus working the issue at both ends, can work remarkably effectively. The current version of the House bill, however, simply gives the permits to the emitters, transitioning over time to a pure auction system, theoretically in order to reduce energy cost impacts to the general population.

Other issues involve how to set the initial cap and how to enact reductions over time. Experience in Europe and with RGGI has shown that creating a cap that is too high will tank the price of the permits and cause no change at all. Other issues are whether to allow banking of unused credits and whether to allow “borrowing” from future emission permits, both to allow for fluctuations in unanticipated demand.

A third key concept is whether the system will accept offsets and the corresponding issue of additionality. Offsets are projects that an emitter may take to reduce emissions somewhere else, which then count as an offset against the actual emissions of the emitter. Rules surrounding these kinds of financial instruments are of course complex, and the largest of them is the rule of additionality. For an offset to be a reliable way to count against the emissions of an emitter, the project would have to be permanent, verifiable and addition to actions that would be taken without the benefit of the funding of the emitter- that is, additionality. As complex as the rules around offsets are, almost more complex are the kinds of rules set up to measure and track additionality.

Among the host of criticisms of the cap and trade system is that it creates the opportunity for significant fraud (in Europe, there are claims that older factories have been opened simply to receive offset payments for closing and remaining closed) and a resulting need for oversight, regulation and verification services, together with brokerage costs for buying and selling credits and offsets. The problem with all this is that it creates the

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need for more overall costs than would be required by a simpler system.

The simpler system, of course, is a carbon tax, such as that proposed during the Clinton administration. Under this system, every unit of energy produced by a carbon-based fuel would be taxed at the same rate, having the effect of raising the cost of carbon-based energy and thereby making saving energy and using renewable energy sources more attractive. Economists generally prefer the carbon tax as a more efficient system, since, in theory, it sends a clear and consistent pricing signal to all market participants while avoiding most of the transaction costs associated with a market-based system. A recent study of the California experience indicates that more than 40 percent of the reason that California has been able to maintain its flat per capita energy use since 1970, while the rest of the country has seen its per capita energy use soar, is due to California's highest-in-the-nation energy costs. Again, the European experience seems to indicate that a system that taxes what is bad (using carbon-based energy) but that is either revenue neutral (because it no longer taxes what we want to promote, which is income and profit) or that reinvests proceeds into subsidizing transition to lower energy demand and demand for cleaner sources is far and away the most effective real solution to bringing down energy consumption. The problems are that (a) this system guarantees no reduction at all—maybe people will simply choose to pay more and continue to use the same amount of energy; and (b) people in the U.S. hate taxes and will vote out of office any politician who uses the word tax without the addition of “cuts.” Because of this difficulty, it is likely that the U.S. will move toward the more capitalistic cap and trade system.

In truth, the impact of either system is likely to be more or less the same to the owner of a hospital – higher energy costs. Indeed, part of the calculation in setting a cap in the cap and trade system is estimating how much energy cost increase the American public can bear and how much energy prices will go up with varying levels of caps. The upshot of this is that bringing down energy consumption is going to be an important long-run strategy for everyone, in the very near future.

However, given that neither a carbon tax nor a cap and trade system is guaranteed to solve the problem or is guaranteed to do it efficiently and with the least possible pain, why should the healthcare sector support either? Earlier this year, the EPA passed an

Endangerment finding, in which it recognized that CO2 emissions endangered “the public health and welfare of current and future generations.” The meaning of this finding is that the EPA is now required to regulate the emissions of CO2 under the Clean Air Act Authority. The problem with this kind of regulation is that it is much more likely to be directed at individual hospitals and other buildings rather than at the large emitters as with the cap and trade systems. That is, the regulation would be direct under the EPA and indirect under a congressional system. Indeed this very threat of EPA regulation is one of the reasons that many in Congress are anxious to pass climate legislation this year, regardless of the difficulties in doing so.

More important, since the likely winner of the legislative sweepstakes is going to be the cap and trade approach, is that the only way to feasibly make a system like this work is to impose it on only the largest emitters – that is, on the utility companies. As a result, the current Waxman-Markey bill includes many, many more pages related to other regulations for other buildings and other energy consumers that are likely far more significant and are deserving of more attention than the better-advertised cap and trade elements of the plan. Among these requirements are requirements for more stringent appliance standards and for more items, requirements for more stringent energy provisions and enforcement in building codes, requirements (and funding) for energy retrofits of existing buildings,

support for smart grid development, making nonprofit hospitals eligible for certain governmental grants, new requirements for vehicle fleets, and development of strategic plans for helping the healthcare sector (among others) prepare to deal with the effects of climate change.

Indeed, California, with its 2006 Global Warming Solutions Act has already started to grapple with the intricacies of these other kinds of issues that are not as well advertised as the high-profile cap and trade issues and is finding them very problematic. One such regulation, the inclusion of greenhouse gas inventory and mitigation as part of the EIR process, is already having profound impacts on the way healthcare buildings there are being designed and constructed. California is also at the forefront in terms of development of a Green Hospital Building Code, which will go into effect in 2010. With many Californians taking leadership positions in the current federal government, these California regulations are as likely to find their way east as did the vehicle fuel economy standards.

All this is to say that building owners in general, and healthcare building owners in particular, need to be aware of the developments in climate change law and need to anticipate the impact these changes will have on their facilities and on their bottom lines. Forewarned is forearmed. **FC**

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