CLIMATE FRIENDLY RETROFITS

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As Stimulus dollars continue to flow, we observe a significant and expanding investment in “building retrofit” programs. While some actual retrofitting is being financed, much of the money is being used to audit houses, report findings to homeowners, and market conventional efficiency upgrades. The stimulus investment will invariably save some energy, but it is not on a track to capture the vitally needed carbon reduction potential of buildings. Or the employment that goes with labor intensive efficiency measures.

2020 carbon emission goals, designed to buffer inevitable changes, have been established widely, including the West Coast States (WA, OR, CA). What’s missing from the current efficiency investment is a connection between retrofit standards and carbon reduction goals. With this connection, we could launch the transition to climate friendly buildings, and revitalize the construction industry. Efficiency investments can be devised to maximize both jobs and carbon reduction: when climate is considered, higher performing structures generate the best return on investment.

A major expense for an efficiency retrofit is getting a crew out to do the work. Once the work starts, it may not cost much more to be thorough. If 30% more investment creates a spike in the building performance and carbon reduction, this could be a better standard, and the best guide for efficiency incentives. Conserving a KWH goes beyond reducing consumer expense: it buffers a wide range of climate-driven costs, such as adaptation; mitigation; resource scarcity and related security issues; emergency preparedness; public health issues, etc.

Environmental improvement (via fuel efficiency, building efficiency, regulation, etc.) typically occurs in increments of 10 or 15%, sometimes as much as “20% better”. Improving a few percent from your own baseline has worked for a long time, but the new imperative is to reach a specific emission goal. Every building needs to be part of the climate solution, and do all it can do, to lighten the footprint.

We are fortunate to have high performance technology, labor and materials available today: examples abound of highly efficient “deep energy retrofits” and “net zero” structures. We need to take advantage of these available resources: many buildings will require much higher performance levels, if we are to achieve critical 2020 emission goals.

We can view our building stock as an untapped carbon reduction resource. This is not a vaguely defined offset: an eliminated KWH of power is direct and ON-GOING carbon reduction. Efficiency investments make sense from an economic recovery perspective, while acknowledging climate risks. Building efficiency provides an immediate opportunity for demonstrating a solution-oriented response to a warming world. In one investment, building efficiency promotes both adapting to more extreme weather, and mitigation, reducing emission through energy efficiency.