

New Buildings Committee October 6, 2008

Additional Discussion Topics

Topics That Are or Should Fall Within Our Current Agenda

1. Include the concept of embodied energy. The embodied energy that goes in to the materials and the construction of new buildings can be a significant component of a project's lifecycle energy needs. Consideration of embodied energy is also important in helping us make appropriate decisions when considering the reuse and renovation of existing buildings as compared to new construction.

Suggestion: As this group is considering both new buildings and major renovations of existing buildings, embodied energy is an issue that could be discussed. It is probably most appropriate to include it as a factor to consider during the discussion of energy codes and building codes.

2. Have the City focus on improving existing codes and permitting processes, with an emphasis on reducing energy and carbon impacts. This suggestion might also imply that the City not take on any new programs, but rather make sure our existing systems work effectively and do not present barriers to high performance building designs.

Suggestion: Improving existing building and energy codes is the intent of the final two policies options listed for consideration. However, there is a difference between updating (and potentially significantly modifying) our current codes, vs. simply ensuring that our current codes and processes are working as effectively as possible. DPD's Priority Green program is intended to identify and correct code barriers, though this could be worthy of a separate discussion.

3. Find a mechanism to finance long term benefits to reduce the barrier of the up front capital investments necessary for energy efficiency improvements.

Suggestion: This should be integral to the discussion of each of the incentive options being considered. The Task Force may have additional suggestions on a how to report on the cost effectiveness in a way that better highlights projected benefits, costs and their timing. Is this a question of ability to finance improvements, or their perceived value?

4. Consider alternatives to LEED for our targets, since a high rating in LEED does not necessarily guarantee good energy performance.

Suggestion: LEED already has tremendous market awareness and acceptance, and should not be eliminated from our discussions. However, we acknowledge that LEED certification has limited correlation to measured improvements in energy performance. Any discussion of LEED within the policies being considered should be viewed as LEED combined with a requirement for achieving a set number of additional energy credits.

5. Provide incentives (feebate or grants) for onsite generation for new buildings above a certain size.

Suggestion: This should be viewed as a policy design consideration for the feebate or Green Grant alternatives.

6. Assess benefits accrued to low-income families versus middle income families for energy savings (income elasticity) and examine it against the City's projected development in the low-income housing sector. It goes back to the income elasticity for different income groups. For instance, what are the impacts if a low-income family could save \$50/month on energy bills? These benefits would have to be extrapolated to reflect the total number of NEW low-income projects anticipated/planned for the over the planning period to understand the full benefits.

Suggestion: This should be included as an important consideration in the discussion of stakeholder impacts for each of the policies being considered, unless the Task Force feels there is a specific policy recommendation related to social equity that should be discussed separately.

Topics Beyond the Scope of this Task Force

1. Consider parking requirements, density and land use issues. Constructing a high performance "green" building with excessive parking, or in an inappropriate location that encourages sprawl and greater dependence on cars, will still result in increased net energy use because of the transportation demands.

Suggestion: Although this is a very significant issue in the overall energy and climate change, transportation impacts are beyond the scope of this Task Force. This could be included as a recommendation for further study by the Task Force.

Potential New Topics / Policy Options

1. Look at actual building performance, relying on a building performance scorecard or similar benchmark, rather than the design intent of a new building. Studies have shown that design conditions are a very poor indicator of the actual energy consumption of a building.

Suggestion: Tying program incentives or compliance to actual performance based on a post occupancy evaluation could be integrated into the design of any of our policy alternatives, and it is an essential component of the upcoming discussion of energy codes. Furthermore, since this issue bridges the line between new and existing buildings, and the Existing Buildings group is already evaluating various alternatives for building performance disclosure and benchmarking, this would be an appropriate discussion topic for the first joint meeting of the two committees.

2. Consider opportunities that go beyond the individual building envelope by promoting infrastructure oriented solutions for recovering and reusing waste heat, distributed renewable energy systems, or other efficient energy resources.

Suggestion: This could be an additional area for the Task Force to explore, in order to help articulate a clear policy recommendation.

3. Consider developing a prescriptive performance based handbook of energy efficiency practices.

Suggestion: This could be included within a broader discussion of educational opportunities, which could be an important piece of each policy option or could be taken on as a separate topic or policy alternative for discussion.