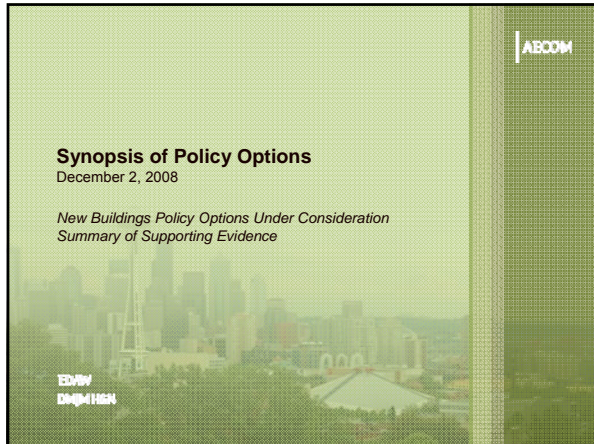


ARCOM

Synopsis of Policy Options

December 2, 2008

*New Buildings Policy Options Under Consideration
Summary of Supporting Evidence*



EMW
D&P-HEN

Policy Options Under Consideration

- ▶ Green Investment Fund
- ▶ Green Building Feebate
- ▶ Green Building Density Bonus
- ▶ Green Priority Permitting System
- ▶ Green Building Code
- ▶ Energy Code

- ▶ Beyond Individual Buildings
- ▶ Continuous Monitoring of Performance
- ▶ Increase Energy Rates
- ▶ Innovation Review Board




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Green Investment Fund

Objective: Incentivize exemplary, comprehensive green building projects

Key Policy Design Issues:

- ▶ Financing Model
 - » **Grant model:** competitive grant ~ 50k-100k per grant for innovative green building developments
 - » **Loan model:** commercial revolving loan fund ~ \$500k-\$1.5MM low-interest gap financing for energy efficiency components
- ▶ Stringency of project performance thresholds
- ▶ Disclosure pathways – prescriptive vs. performance
- ▶ Project type focus – prescribed or general sustainability innovations



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Green Building Feebate

Objective: Create a revenue neutral incentive/penalty system to shift the market to green building practices.

- ▶ Charge **Fee** based on size and/or energy intensity
- ▶ Grant **Waiver** if the building meets green building standards
- ▶ Provide **Reward** for high performance buildings

Key Policy Design Issues:

- ▶ **Fee/Reward Structure (Portland example):**
 - » **Fee:** Energy Use Intensity Building Type x Square footage x (Carbon emissions ÷ Unit of energy) x (\$12/ton CO₂) x building life
 - » **Fee waiver:** LEED Silver + min EA and Water credits
 - » **Initial reward:** LEED Gold + min EA and Water credits
 - » **Double reward:** LEED Platinum + min EA and Water credits
 - » **Super reward:** Cascadia GBC Living Building Challenge including net-zero energy and water requirements



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Density Bonus (Existing Policy)

Objective: Create an incentive for incorporating energy efficiency measures and/or specified sustainability objectives by permitting additional floor space above the standard zoning limits for qualified projects

Key Policy Design Issues:

- ▶ **Project Performance Threshold:** Currently LEED® Silver, but is in the process of being updated
- ▶ **Geographic Focus:** Downtown Seattle, though shifting to outside Downtown area in 2009
- ▶ **Enforcement:** For buildings that renege on their commitments, a penalty is assessed



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Priority Green Permitting (Existing Policy)

Objective: Assist innovative projects which serve as visible models of high performance and sustainable development

- ▶ **Facilitates** permitting for projects that meet criteria thresholds for green building in Seattle

Key Policy Design Issues:

- ▶ **Ability to expedite qualified projects (rather than just facilitate)**
- ▶ **Energy/Climate requirement (current policy):**
 - » 60% energy & fossil fuel use reduction using Energy Star or
 - » Building performance improvement of 20% over Seattle Energy Code for commercial building projects and 30% for residential projects
- ▶ **Multiple pathways to demonstrate performance**
- ▶ **Tiered system of benefits:**
 - » Exemplary performance receives fee reduction or credit



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Summary of Supporting Evidence

- ▶ Summary Policy Scorecard
- ▶ Cost Effectiveness Methodology and Ratings System
- ▶ Energy Savings vs. Cost of Policy Implementation
- ▶ Cost to City, Developer, and Energy Savings
- ▶ Energy Savings vs. Cost to City
- ▶ Policy Option Compatibility
- ▶ Qualitative Policy Analysis
 - » *Maximum Potential*
 - » *Easiest to Implement*

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Summary Policy Scorecard

SUMMARY POLICY SCORECARD		Energy Efficiency Potential	Economic Impacts	Cost of Policy Implementation	Cost Effectiveness	Administrative Feasibility
		Rating (★ = 1 star, ★★★★★ = 5 stars)				
Financing and Incentives	Green Investment Fund	★	★	★★	★	★★★
	Green Building Rebate	★★★	★★★	★★★	★★★★	★★★★
	Quality Bonus	★★	★★	★★★	★★★★	★★★★
Regulation	Waiving Green Permitting	★★	★★	★★★	★★★	★★★★
	Green Building Performance Standards	★★★★	★★★★	★★★	★★★★	★★
	Green Building Code	★★★★	★★★★	★★★	★★★★	★★
	Energy Code Updates	★★★★	★★★★	★★★	★★★★	★★

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Additional: Beyond Individual Buildings

Objective: Support development of energy efficient district energy networks and recapture of waste heat

Key Policy Design Issues:

- » Develop 'energy masterplans / action areas' identifying existing plants, sources of waste heat, anchors loads, new development areas
- » Require mandatory participation in district heating systems in specific areas
- » Restrict the use of electric resistance heating to small development
- » Offer connection grants to offset additional costs of hydronic heating systems
- » Help to standardize contractual agreements
- » Subsidize heat from the district heating network so it is cost equivalent with electric heating in the short term



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Additional: Continuous Monitoring

Objective: Ensure that buildings perform as designed, and are operated to minimize their energy use

Key Policy Design Issues:

- ▶ Appropriate measurement (prescriptive checklist, utility bill data, or performance rating)
- ▶ Appropriate metric (carbon or energy)
- ▶ How often?
- ▶ Point of intervention – Sale or Lease
- ▶ Self assessment or third party auditor
- ▶ Mechanism for enforcing improvement if not performing as designed
- ▶ Must not penalize successful businesses



ENERGY | DESIGN | CONSTRUCTION | OPERATION

Additional: Raise Energy Rates

Objective: Use market pressures to encourage changes in behavior that will reduce energy consumption (e.g., plug loads)

Key Policy Design Issues:

- ▶ Provide low initial rates with steep increase in rates above threshold
- ▶ Market elasticity - will higher rates actually impact energy use?
- ▶ More difficult to implement for commercial because of variability in use and size of projects (already in SCL's residential rate structure)
- ▶ Provide reduced rates for low income housing



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Additional: Innovation Review Board

Objective: Help innovative solutions get through the permitting process in the instance of apparent code conflicts

Key Policy Design Issues:

- ▶ Type of projects the board would review
- ▶ Authority given to the board
- ▶ Membership of the board



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