

Recommendations for CO₂ Reduction Strategies and Sustainable Practices for Construction Projects in Boise

from the

Boise Climate Protection Program Advisory Committee

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Community Development Recommendations

1. Implement energy and water use reduction education programs for homeowners and existing commercial building owners in coordination with, but not limited to: utility companies, state and federal agencies, building associations and interest groups.
2. Provide financial assistance for residential and commercial retrofits that reduce energy use and water consumption.
3. Implement an outreach program for residential developers and builders. The program should demonstrate how to build energy efficient homes and provide education on renewable energy sources including, but not limited to: pre-wiring and pre-plumbing for potential solar installations.
4. Fund a demonstration project to develop plans for homes of different sizes (e.g. 1,400, 1,800 and 2,100 square feet) that implement the best energy and water conservation practices pertinent to our climate zone. This effort should include:
 - coordination with builders associations,
 - working with utilities to jointly fund the perceived additional cost items, and
 - regularly monitoring energy use for a period of two years and publishing the results.
5. Require all new residential construction to achieve a minimum energy efficiency level equal to EnergyStar NW requirements with certifications obtained from 3rd party inspectors.
6. Initiate a program to achieve a net zero energy use in new residential construction by 2030. Within five years of implementing the EnergyStar NW requirement for new construction in 2008 all new homes shall reduce energy consumption and surpass EnergyStar NW requirements by 15%. Beginning in 2012, energy use must be reduced below the 2008 EnergyStar NW levels by an additional 15% every three years to reach the zero energy use goal by 2030.

2008	EnergyStar NW certification
2012	2008 EnergyStar NW requirements plus an additional 15% reduction
2015	2008 EnergyStar NW requirements plus an additional 30% reduction
2018	2008 EnergyStar NW requirements plus an additional 45% reduction
2021	2008 EnergyStar NW requirements plus an additional 60% reduction
2024	2008 EnergyStar NW requirements plus an additional 75% reduction
2027	2008 EnergyStar NW requirements plus an additional 90% reduction
2030	2008 EnergyStar NW requirements plus an additional 100% reduction

7. Recognizing the nexus between water use and energy efficiency, require that all new construction use water conservation systems. Consideration should include but not be limited to:
 - low flow lavatory faucets (1.5 gallons per minute or less),
 - dual flush toilets or toilets (1.3 gallons per flush or less), and
 - low flow shower heads (2 gallons per minute or less).

Where potable water is used for irrigation, at least 50% of the landscaped area shall employ drip, subsurface systems, or another type of water conservation irrigation system.

8. Require that the 2006 International Energy Conservation Code (IECC) be exceeded by a minimum of 20% for new commercial construction. This requirement would apply to new designs submitted six months after adoption of this standard.
9. Require a minimum of a 30% increase in water efficiency above current code for new commercial construction. Documentation of water reduction must be provided. The current Uniform Plumbing Code should be used as the baseline until such time as new codes are developed that would meet or exceed 30% of the currently adopted Uniform Plumbing Code.
10. Offer an incentive for obtaining third party performance testing within one year after the certificate of occupancy has been issued for all new commercial construction.
11. Provide priority processing at all levels for new commercial construction permit applications with performance based energy and water use reductions above minimum requirements.
12. Provide financial incentives for performance based energy and water use reductions above minimum requirements for new commercial construction.
13. Explicitly allow sustainable practices through amendments to the Boise City Code. Minimally, include allowances for:
 - solar photovoltaic panels on all existing and new homes,
 - outdoor clotheslines at all new and existing homes,
 - waterwise landscaping throughout the city, and
 - alternative methods for storm water infiltration, e.g., permeable paving, no curbs.
14. Re-write design standards for all development with input from neighborhood associations and the development community which better define and promote higher density neighborhoods, connectivity, and alternative transportation.

15. Adopt a solar access ordinance by July 1, 2008. Consideration should include, but should not be limited to:
 - review of the previous solar access ordinance for applicability,
 - east/west street orientation in new subdivisions, and
 - current best practices
16. Provide incentives for all development that include, but are not limited to, density bonuses for sustainable practices above minimum code levels. Sustainable practices include, but are not limited to, siting, energy efficiency, densities, water efficiency, transportation, renewable energy, and green roofs.
17. Encourage high density development especially in the downtown area. Specific recommendations include:
 - rewriting the zoning code to encourage high density particularly in the greater downtown area,
 - working with ACHD and CCDC to establish an impact fee district unique to downtown Boise, and
 - review all governmental charges, fees and assessments, etc. that apply to downtown development to determine their appropriateness for the encouragement high density development.

Boise City Facilities Recommendations

1. Require all new municipal buildings be designed to meet LEED silver standards. LEED gold standards are preferred. Particular attention will be paid to maximizing energy reduction credits. Buildings greater than 10,000 square feet shall be required to obtain LEED certification.
2. Audit existing municipal facilities for energy and water use. Consider all options for energy and water use reduction. Require implementation of all solutions with a demonstrated payback of seven years or less.
3. Monitor energy and water costs at all facilities and compare consumption based upon similar parameters, e.g. square footage. Publish reports on a routine basis.
4. Implement citywide sustainable purchasing policies. These policies should include, but not be limited to:
 - EnergyStar appliances and equipment,
 - recyclable materials, and
 - items with recycled content.