GREEN BUILDING, ENERGY EFFICIENCY and CONSERVATION

We envision a community where the built environment is part of the climate solution, where resident, business, non-profit, and government buildings are increasingly energy efficient, and where community members of all socio-economic status benefit.

Our Community will reduce greenhouse gas emissions that stem from buildings and develop a high demand for green buildings (new and retrofits) from all community sectors. We will verify that the community is making progress and that specific buildings are performing as designed.

Snapshot: The building industry has huge potential to impact our climate and environment, either positively or negatively. It is estimated that the majority of anthropogenic greenhouse gasses are attributable to the building industry, from the making and transporting of building materials to operating and maintaining buildings over their lifetime. Buildings, particularly homes, have the potential to give occupants control of their environmental impacts and create positive connections with nature.

According to Missoula's Climate Wise report (2011), one of the impacts expected in Missoula is growth. People may move here from other areas to escape climate change related problems. This will have a direct impact on the building industry and such growth will push against greenhouse gas reduction goals. This issue requires cross sector, high-level discussions about how best to reduce Missoula's greenhouse gas footprint due to buildings. Options are many and could include mandatory energy budgets for new construction, offsetting strategies, or replacement of current energy sources with renewables. Additionally, many residential homes and businesses are sorely in need of efficiency and conservation upgrades, to save occupants money and reduce energy footprints. We are lucky to have engaged community members – from architects to bankers to neighborhood leaders – to engage the Missoula area in these opportunities.

KEY STRATEGIES:

1. Support Five Valleys High Performance Building Collaborative

Goal: Create and support a network of green-building design, building and finance experts that openly share knowledge and work together for a better built environment in the Missoula area. The collaborative will help determine how to overcome barriers and how to mainstream energy and resource efficient building construction.

Note: The Five Valleys High Performance Building Collaborative was created in the spring of 2015 (stemming from the Climate Smart Summit #2) and now meets monthly. Industry professionals, including designers, engineers, architects, builders, bankers, real estate agents, LEED and sustainability consultants, meet and discuss opportunities and challenges to institutionalizing high performance building construction throughout the Missoula area, and are developing specific strategies to move our community in a stronger direction.

Activities:

A. Continue to meet monthly to network, share ideas, and address barriers and policy needs.
B. Help develop community education to promote green building, energy efficiency and conservation, and water conservation.
    i. Web-based information sharing
    ii. Organize or support speaker/symposium

iii. Outreach to showcase success stories
iv. Support neighborhood programs (see Activity #2).

C. Potential specific activities for this collaborative:
   i. Create a comprehensive green building policy for both new and existing buildings in the Missoula area (marry this with Smart Growth bucket).
   ii. Research and adopt certification system (possibilities include Passivehouse, LEED, Energy Star, etc.)
   iii. Develop Builder/homeowner/landlord incentives and enforcement
   iv. Create system for energy use reporting, transparency, and, where need be, enforcement
   v. Adopt local energy efficiency codes (performance based)
   vi. Develop realtor licensing/certification program

D. Research and develop additional local policy recommendations that incentives green building and energy retrofitting. For example, provide incentives for energy efficient "above-code" green building and development to reduce developer and owner/tenant costs and work to remove the disincentives that exist in local rules and codes. (see Activity #2)

Metrics and Timetable.

a. The collaborative formed in spring 2015 and support is ongoing. The collaborative will share meeting notes and track outcomes and policies.
b. Green building speaker/event in fall 2015; likely more in future years. Education shared with Climate Smart Missoula website in 2015 and beyond.
c. Begin discussion of these policy-oriented activities in 2015; working with local government and elected officials, develop specific plan for 2016 and beyond.

2. Develop and encourage financing and funding opportunities

Goal: meet the need for new, creative and equitable funding opportunities for developers, building owners, business leaders, and local government.

Activities:

A. Identify mechanisms, innovative zoning provisions, incentives, and financing tools to promote the construction and retrofitting of green building, with a priority on affordability to mid and lower income residents and small businesses.
B. Partner to help pass fuel tax, or other broad-based fund that can return monies to consumers for energy upgrades, retrofits, and green building projects.
C. Create energy bond fund / loans to homeowners to finance energy and water efficiency retrofits.

Metrics and Timetable

a. The Collaborative (see Activity #1) has started this conversation. Based on their capacity and abilities, we will expand this effort to ensure simultaneous progress on multiple fronts. Ongoing, with an eye for every other year state legislative sessions (where state law needs updating).

3. Initiate neighborhood energy efficiency and conservation projects

Goal: Initiate and enhance community education efforts and awareness about energy use and ways to reduce via projects, incentives, and competitions.

Activities:

A. Develop project objectives and specifics and potential ways to fund (foundation grants, public-private partnerships, etc.).
B. Enlist lead organizers and engage Neighborhood Councils and Transition Streets/Transition Missoula.
C. Develop and implement incentives and competitions programs.
D. Possible connection with WRAP: Weatherization & Retrofit Assistance Program (originally University of Montana College of Technology project), a project to incentivize homeowners' and renters' retrofits.
E. Extend to energy saving efforts within Missoula County Public Schools and the University of Montana.
F. Focus not just on inside building, but also on yard and outdoor environment and potential for energy savings.

Metrics and Timetable

a. Although both interest and need is high, must first increase the community's capacity (within Climate Smart and other community groups) and funding. Priority to begin in 2016 and efforts will be ongoing.

4. Develop energy efficiency projects within specific community sectors

Goal: Create the right synergies and support to take on higher profile or specific built environment projects, where the need is unmet and the return-on-investment is high.

Activities:

A. Provide free or affordable energy audits and consultations to homeowners, renters, and businesses.
B. Initiate a "Cool Roofs" project in which living roofs or reflective colored roofs are incentivized or required. (Possible tax credits or fee reductions to participating homes and buildings).
C. Implement streetlight and traffic light efficiency retrofits (LEDs).
D. Implement zero landfill building and manufacturing policy, emphasize reusing materials.
E. Require life-cycle assessment of energy and water consumption into bids for City and County projects.
F. Encourage upgrades to mobile home parks to meet current safety standards and as potential redevelopment areas for other affordable housing types.
G. Establish mandatory reporting of energy consumption for homes and commercial buildings, including existing private buildings, existing public buildings and new construction.
H. Encourage more public performance contracting – University of Montana, DEQ.
I. Enhance contractor licensing.

Metrics and Timetable

a. These are measurable projects but at this point are aspirational yet possible and not time-bound. We will track the results of any efforts as part of our

A CLIMATE SMART WAY FORWARD:

No doubt there are incredible opportunities for the Missoula community and surrounding region to make great strides in building efficiencies and design. We have a talented pool of professionals who know all too well that challenges abound. We need to develop and pass the requisite policies to help low income afford green energy, energy efficiency. In particular, we need to:

- Remove the built in incentives for cheap upfront products and materials, and instead incorporate long term pricing and pay off.
- Reconcile high-tech/low-tech approaches to green building
- Ensure lower income and vulnerable populations receive assistance and projects
- Connect diverse array of interested parties
- Identify clear entry points for all involved

With leadership from the new Five Valleys High Performance Building Collaborative and Climate Smart Missoula we are excited to accelerate Missoula's progress.

Potential Partners: City of Missoula, Missoula County, University of Montana, Missoula College, Missoula Federal Credit Union, First Interstate Bank, St Patrick Hospital, Missoula County Public Schools, Homeword, Home ReSource, various private contracting and consulting businesses, architects, engineers and developers, local and state elected officials, and more.

Developing green building, energy efficiency and conservation strategies during Summit #2