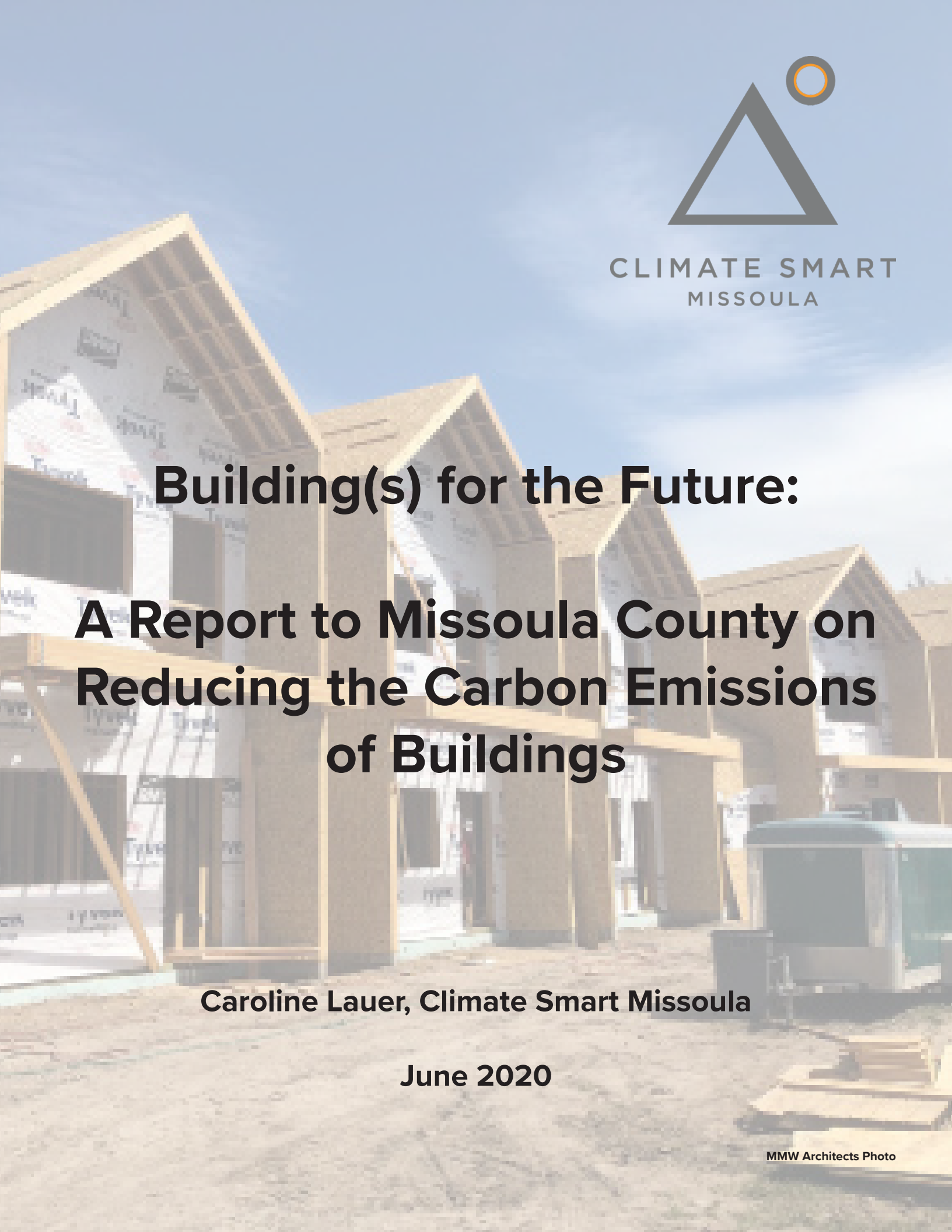

CLIMATE SMART
MISSOULA

Building(s) for the Future:

A Report to Missoula County on Reducing the Carbon Emissions of Buildings

Caroline Lauer, Climate Smart Missoula

June 2020

MMW Architects Photo

Introduction

As one component of the FY20 contract between Missoula County and Climate Smart Missoula, Climate Smart Missoula was tasked with working with building and development communities to understand obstacles to, and opportunities for, net zero energy buildings, considering materials and energy use in both new construction and retrofits. The original outlined activities to achieve this goal were:

1. Hosting a green building "Summit"
2. Presenting findings to County

The COVID-19 pandemic changed our approach to achieve the above stated goal, but this report still provides initial findings that will inform local government's approach to reducing carbon emissions from buildings. The draft report details the importance of reducing emissions from buildings, past efforts in the Missoula community and progress to date, and the Building(s) for the Future Initiative, which will help drive low-carbon building in Missoula through recommended policy, programmatic, and educational initiatives.

The Importance of Buildings

Finding ways to decrease carbon emissions from the building sector is crucial for Missoula if it is to meet its community carbon neutrality goals: buildings make up 52% of total community emissions.[1] While change will need to occur across all sectors, moving forward aggressively in the building sector is paramount because "once buildings are built, building sector emissions are locked in."[2] Buildings can be thought of as a one hundred year decision because the building's envelope is usually a hundred years or more.[3] With each new conventional building, we add to the inventory of building emissions and reduce our ability to respond to climate change.

Conventional buildings limit our mitigation and resiliency responses. Climate Ready Missoula: Building Resiliency in Missoula County projects hotter, drier, and smokier summers, which will translate to several types of vulnerabilities for our community's buildings. Of the 77 strategies that the plan identifies for building resiliency in Missoula County, 11 address Missoula's building stock.

Missoula's aging housing stock exists at the intersection of mitigation and resiliency. Increasingly unaffordable housing prices and lagging wages are pushing a larger portion of our community into substandard and energy inefficient homes that bring cold drafts in the winter, hot and sometimes smokey air in the summer, and high utility bills throughout the year. Low-income households bear this burden most of all; they are more likely to find themselves in older, leakier residences, forcing them to spend a greater percentage of their income on energy and breathe unhealthy air when wildfire smoke fills our valley. Considering where and how we build, especially at a time of growth in our community, has never been more important.

Past Efforts in Missoula

Missoulians have long recognized this, and conversations around "green building" have been happening for years. Specifically, Missoula County has taken action in the following ways to reduce carbon emissions and increase resiliency in the building sector:

- *Community Climate Smart Action Plan* | 2015
- Missoula County growth policy | 2016
- SolSmart Silver Designation Awarded | 2018
- Missoula's 100% Clean Electricity Resolution and *Options Report v2* | 2019
- *Climate Ready Missoula: Building Resiliency in Missoula County* | 2020

Benchmarking Progress: ACEEE Scorecard

Translating the above accomplishments into a system of clear, quantifiable metrics that allows policymakers, elected officials, and citizens to track progress is of utmost importance. The American Council for an Energy-Efficient Economy's (ACEEE) Local Clean Energy Self-Scoring Tool, Version 4.0, allows Missoula to do this.

ACEEE releases a City Clean Energy Scorecard annually, ranking 75 large US cities on the basis of their policies and leadership in advancing clean energy. The scorecard uses approximately 50 metrics to evaluate efforts across local government operations, community initiatives, building policies, energy and water utilities, and transportation policies. In December of 2019, ACEEE translated the large city scorecard to the Excel-based Local Clean Energy Self-Scoring Tool, Version 4.0, so small and mid-sized communities could evaluate and track their efforts.

The Self-Scoring Tool guides the respondent in collecting relevant community and statewide data on existing initiatives and produces a score based on

the provided answers. The tool also provides cursory analysis, comparing the respondent's scores with the median scores from the 75 large cities in the City Scorecard. In addition to benchmarking progress, the tool's scoring categories provide policy and program ideas for local jurisdictions to pursue.

Acknowledging the importance of setting a baseline for Missoula's building policies and programs, this report includes an initial assessment with the Local Clean Energy Self-Scoring Tool, version 4.0. The buildings policies' score takes state policy and utility cooperation into consideration and computes a score based on building code adoption, building code compliance, incentives, benchmarking and transparency, energy programs, and workforce development. The maximum possible score is 30.0, and Missoula scored a 5.0, 4.0 points lower than the median score of 9.0 from the 75 cities scored in the City Clean Energy Scorecard. Notably, Missoula scored at or above the median score in all other categories of the self-scoring tool (local government operations, community-wide initiatives, energy and water utilities, and transportation policies), so buildings policy is an outlier in this respect.

The lower score is partially due to limitations imposed by state legislation; Missoula's relationship with Northwestern Energy is also a notable difficulty, but the development of the Memorandum of Understanding between the City of Missoula, Missoula County, and Northwestern Energy as part of the 100% Clean Electricity effort is an important step in addressing this issue. Even with these limitations, the scorecard results suggest the offering of incentives, workforce development opportunities, and the establishment of an energy benchmarking program as opportunities for increasing energy efficiency via buildings policies. Missoula's shortcomings in the buildings policies section of the scorecard, especially considering its high marks in other areas of the assessment, emphasizes the importance of focusing on buildings policies that are on a par with actions Missoula has taken in other areas of our community to mitigate and prepare for the effects of climate change.

A summary table of Missoula's scores are included below in Figure 1 and the full buildings policies scoring spreadsheet is included in Appendix 1.

Figure 1. ACEEE Summary Scores

Category	Score
Stringency of building codes	**4** of 8
Building code enforcement and compliance	**1** of 5
Incentives and financing	**0** of 3
Building benchmarking, rating, and energy use transparency	**0** of 5
Required energy actions	**0** of 7
Workforce development	**0** of 2

Building(s) for the Future Initiative

The Building(s) for the Future initiative recognizes the need to take action, builds on past efforts, and charts the path forward to a low-carbon and resilient building stock. Climate Smart Missoula has been leading this effort and collaborating with the City of Missoula, Missoula County, and a task force of architects, designers, engineers, and non-profit partners. Members of the Building(s) for the Future Task Force include:

- Caroline Lauer and Amy Cilimburg*, Climate Smart Missoula*
- Sarah Ayers and Luke Jackson*, Loci Architecture + Design*
- Shane Morissey, *MMW Architects*
- Katie Deuel and Leigh Ratterman, *Home ReSource*
- Chase Jones*, City of Missoula*
- Diana Maneta*, Missoula County*
- Paul Herendeen*, Clearwater Credit Union*
- Rob Lindner, *Central Street Ventures*
- Damian Mast*, HONE Architects & Builders*
- Skander Spies*, McKinstry*

The initiative is additionally supported through financial and technical support through the National

League of Cities Leadership in Community Resiliency (LCR) program.

From the beginning, the interdisciplinary task force did not want to exclusively tie Missoula to a certification or standard, many of which have arisen over the past decades (e.g., Leadership in Energy and Environmental Design (LEED), Net Zero, Passive House, Zero Carbon, Architecture 2030 Challenge). In response, the name "Building(s) for the Future," attempts to encapsulate the guiding principles of low-carbon, resilient buildings without prescribing a specific standard.

Emphasizing flexibility also allows Missoula to adopt a life-cycle approach, including design, construction, operation, and the building's next life (deconstruction or major rehabilitation). "Building(s) for the Future" means considering the embodied carbon of materials, handling waste at a construction site properly, ensuring the building is built according to design, providing the tools owners need to operate the building efficiently and look for improvement opportunities, and appropriately transitioning the building to its "next life," whether that be a major rehabilitation or deconstruction.

"The Summit" and Our COVID-19 Pivot

We initially envisioned a large in-person summit to engage stakeholders and:

- Spark excitement for green building practices
- Increase local knowledge of existing efforts, and
- Identify possible tools, programs, and educational opportunities available to local government, businesses, nonprofits, and large institutions to substantially reduce carbon emissions from buildings and create a healthier, more efficient building stock.

By late February, we had secured additional funding from the National League of Cities to host a large in-person event, booked the venue and food, sent out invitations to guests, developed facilitation guides for the break-out groups, and began reaching out to potential presenters for lightning talks.

Unfortunately, the large (120+ person) event was cancelled due to COVID-19 safety concerns. In lieu of the summit, we worked with our Task Force to adjust our tactics without changing the proposed outcomes.

Instead of relying on summit participants to identify possible policy and program tools, we conducted case study research of best practices and precedents from communities across the country to create the "Menu of Options" (see Figure 2). While this is not a perfect replication of what would have been generated at the Summit, Figure 2 centralizes 23 possible incentives, policies, and educational programs, evaluating them on the basis of legality, cost, and existing momentum.

As Figure 2 demonstrates, Missoula is not the first community to work towards these goals; there are plenty of examples from cities and counties across the country that have made significant progress towards "building for the future." Figure 2 is the result of extensive research and has been vetted by our the Building(s) for the Future Task Force. Each option featured in the menu includes the following:

- A brief description
- Classification as an incentive, regulation, or educational program
- The outcomes it would lead to (in addition to more low-carbon buildings)
- Which aspect of the building's life it could potentially influence
- An initial feasibility analysis based on the legality, cost, and existing momentum
- Selected successful precedents from other jurisdictions in the United States

The menu is not yet prioritized, but we have developed a framework to do so with qualitative data from key informant interviews and an Engage Missoula page open to the Summit guest list, as well as the ACEEE scoring tool and development data. This is described in detail in Figure 4. Some of this work is currently underway, but it is too early to provide findings at this point.

Figure 2. Menu of Options

KEY									
Type of Tool			Building Stage				Feasibility Analysis		
Incentive-Based	Regulatory	Education	Blueprint	Construction	Operation	Next Life (Decon/Rehab)	Move ahead	Some reservations	Real difficulties

Tool Name	Other Possible Outcomes (in addition to more low-carbon buildings)	Implementation Lever	Could advance objectives of...	Legality	Cost	Momentum	Selected Precedents
Density Bonus	• Higher density • Tension with AH incentives	Zoning					Arlington, VA
	Qualifying projects can have more units than allowed in zoning. The increase in allowable units increases potential income for the developer, which can offset (and surpass) the higher costs that building beyond code may entail.						
Reduced Parking Requirements	• Less parking • Tension with AH incentives	Zoning					Flagstaff, AZ, Denver, CO, State of California
	Qualifying projects can provide fewer parking spaces than allowed in zoning. The decrease in required parking reduces development costs, which can offset (and suprass) the higher costs that building beyond code may entail.						
Relaxed Height Restrictions	• Taller skyline	Zoning					Arlington, VA
	Qualifying projects can build higher than allowed in zoning. The increase in height increases potential income for the developer, which can offset (and surpass) the higher costs that building beyond code may entail.						
Reduced Impact Fees	• Less $$ for new infrastructure • Tension with AH incentives	Municipal Code Section 15					Bernalilo County, NM
	Qualifying projects can pay reduced impact fee. The decrease in impact fees reduces development costs, which can offset (and surpass) the higher costs that building beyond code may entail.						
Property Tax Abatement	• Less $$ for general fund and city operations	New local government program					Cincinnati, OH
	Qualifying projects pay a reduced property tax for a set number of years. The decrease in property taxes reduces development costs, which can offset (and surpass) the higher costs that building beyond code may entail.						
TIF Funding Available	• Increased attention on TIF • Tension with existing TIF goals	State legislation passed					Chicago, IL
	Qualifying projects receive TIF funding. The increase in available financing reduces debt servicing costs, which can offset (and surpass) the higher costs that building beyond code may entail.						
Reduced Permit Fee	• Reduced $$ for Dev. Services	Fee Schedules Adjusted					San Diego, CA
	Qualifying projects pay reduced permit fee. The decrease in permitting fees reduces development costs, which can offset (and surpass) the higher costs that building beyond code may entail.						
Expedited Permit Process	• Stress on Dev. Services capacity	Development Services Staff Expanded					San Diego, CA
	Qualifying projects go through an expedited and streamlined permitting process, reducing uncertainty and waiting time. This decreases debt servicing costs, which can offset (and surpass) the higher costs that building beyond code may entail.						
Local Carbon Offset Fund	• Improved housing quality • Increased citizen engagement	Public Private Partnership					Ithaca, NY, Sitka, AK, Juneau, AK, Seattle, WA
	A local carbon offset fund can expand new financing sources and supplement existing residential retrofit programs. The public would be able to offset their own carbon footprints and accelerate low carbon building.						

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Type of Tool			Building Stage				Feasibility Analysis		
Incentive-Based	Regulatory	Education	Blueprint	Construction	Operation	Next Life (Decon/Rehab)	Move ahead	Some reservations	Real difficulties

Tool Name	Other Possible Outcomes (in addition to more low-carbon buildings)	Implementation Lever	Could advance objectives of...	Legality	Cost	Momentum	Selected Precedents
Low Interest Rate Loans	• Greater engagement from financial institutions	Financing Institutions					Missoula, MT
Qualifying projects can access reduced interest rates on loan products. The lower debt servicing costs can offset (and surpass) the higher costs that building beyond code may entail. Clearwater Credit Union currently has a program.							
Bundled Loan Packages	• Greater engagement from financial institutions	Financing Institutions					Connecticut Green Bank
Qualifying projects can access bundled financial products. This decreases debt servicing costs, which can offset (and surpass) the higher costs that building beyond code may entail.							
Expansion of Design Excellence Overlay	• Greater low-carbon building expertise within Dev. Servs.	Zoning					Pittsburgh, PA, Missoula, MT
Amend current design excellence overlay to more holistically include the principles of low carbon building design. The current overlay encourages certain materials to be used over others, but this could be expanded.							
Disclosure Ordinance	• Increased data transparency	Local ordinance					Seattle, WA, Fort Collins, CO, and Philadelphia, PA (just a few)
Require projects to disclose their materials, embodied energy, energy use, and deconstruction plans via an online data portal. This accelerates market pressure for higher performance, as well as collects data to inform better decisions.							
Electrification Ordinance	• Increased focus on energy supply	Local ordinance					Berkeley, CA and San Jose, CA
No new projects are permitted to install natural gas hook-ups. This could be specified to a certain subset of buildings that are a certain size.							
Home Energy Label Ordinance	• Increased consumer awareness	Local ordinance					Minneapolis, MN
All home sales and rental leases must disclose the unit's energy report card at time of sale or lease.							
Green or White Roof Ordinance	• Increased public spaces • Decreased heat island effect	Local ordinance					Denver, CO
A green or white roof ordinance would require certain new construction projects to include a green or white roof for a portion or all of their roof to decrease cooling load during the summer.							
PACE Enabling Legislation		State legislation passed					In 37 states including Nevada, Utah, Colorado, and New Mexico
Property Assessed Clean Energy Programs, or PACE, allows a property owner to finance the up-front cost of energy or other eligible improvements on a property and then pay back the costs over time. It is attached to the property rather than the individual. First, Montana must pass PACE enabling legislation, which would allow counties to implement it. Northern Plains Resource Council is currently leading efforts to pass such legislation.							
Stretch Code Enabling Legislation		State legislation passed					Vermont, Massachusetts
Stretch code enabling legislation would allow municipalities to vote to adopt the Stretch Code (higher energy standards) in lieu of the base building energy code.							

KEY									
Type of Tool			Building Stage				Feasibility Analysis		
Incentive-Based	Regulatory	Education	Blueprint	Construction	Operation	Next Life (Decon/Rehab)	Move ahead	Some reservations	Real difficulties

Tool Name	Other Possible Outcomes (in addition to more low-carbon buildings)	Implementation Lever	Could advance objectives of...	Legality	Cost	Momentum	Selected Precedents
Adopt a Voluntary Stretch Code	• Increased community awareness • Increased expertise at Dev. Serv.	Local ordinance					Oregon, Massachusetts, Vermont, New York
	Adopt a voluntary stretch code that new buildings may choose to adhere to rather than the base energy code.						
Promotion of Flagship Projects	• Increased community awareness • Marketing opportunity for leaders	Public private partnership					Sarasota, FL
	Develop a recognition program for flagship projects, such as a story map, recognition placards, or a building tour (online or in person). The marketing campaign can serve multiple purposes, including community education, virtue signaling that this is a priority for Missoula, and recognition of project partners.						
One-Stop Shop	• Greater coordination	Public private partnership					Energy Trust of Oregon and Energy Works of Fort Collins, CO
	The 1-stop shop approach makes energy efficiency more accessible for a larger portion of the population (commercial and residential) by simplifying a complicated process. It requires a strong partnership with the local utility.						
Voluntary Disclosure Map	• Increased community awareness • Marketing opportunity for leaders	Public private partnership					Seattle, WA, Fort Collins, CO, and Philadelphia, PA
	A voluntary disclosure map creates market pressure for higher performance, as well as collects data to inform future decisions for building owners and operators, as well as policy makers. Climate Smart Missoula is currently developing this.						
Energy Savings Competition	• Increased community awareness	Public private partnership					Fargo, ND, Summit County, UT, Missoula, MT (previously)
	An energy savings competition encourages owners and renters to reduce their energy consumption, all while building momentum and awareness at the ground level for greater energy awareness.						
On-bill financing	• More engaged utility	Public private partnership					North and South Carolina, Kentucky, Arkansas, and Kansas
	Property owners can access the capital needed to finance energy efficiency or renewable energy and repay the loan via monthly payments that are added to the utility bill. The energy savings are automatically factored in to the repayment.						

In addition to identifying available tools through the "Menu," Climate Smart has developed a more robust web based presence to fulfill the other stated goals of the Summit (sparking excitement for low-carbon practices and increasing local knowledge).

Climate Smart Missoula's website, missoulaclimate.org, has a new buildings landing page that centralizes the main points of this draft report in an interactive and engaging way (missoulaclimate.org/buildings). Additionally, Climate Smart has created a voluntary building energy use disclosure map, showcasing the energy use intensity (EUI) of notable buildings in Missoula.

Disclosure is becoming an increasingly popular tool across the country, with many cities and states adopting disclosure ordinances that require large buildings to report on their energy use. ACEEE sees disclosure ordinances as an important step in reducing community energy use because they a) require building owners to collect information that will allow owners to operate their building more efficiently and b) promote transparency across the community. Beginning with a voluntary disclosure process can ease the transition if an ordinance is adopted and can achieve many of the same aims of an ordinance if there are enough participating building owners.

Data collection is still in process, but a draft map is currently available. Below are images from data points from the draft map, and the full map is available online at http://arcg.is/GrKWS.

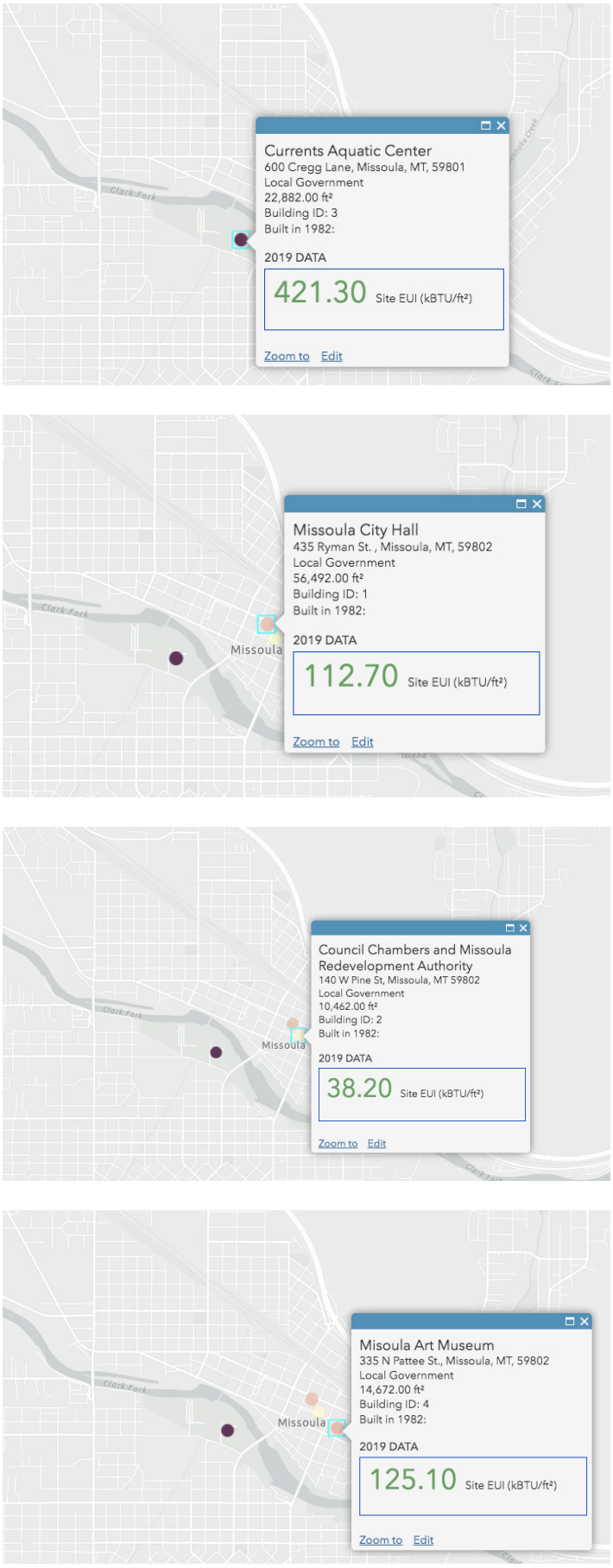
Prioritization

The menu of options is a starting point for the various options that are available in Missoula to move towards a future of low-carbon buildings. Reducing building emissions will require a combination of policies, programs, and incentive programs, but that combination is not yet clear.

In order to refine the existing menu into a prioritized list, Climate Smart has begun a qualitative approach with key informant interviews with building industry leaders and online engagement of the original Summit invitees via Engage Missoula's Ideas tool.

The interviews are semi-structured, 30 - 45 minute conversations to capture the experience, knowledge, and opinions of community leaders. The primary discussion point was the menu of options, but interviews also covered respondent's past experience,

Figure 3. Voluntary Disclosure Map Example



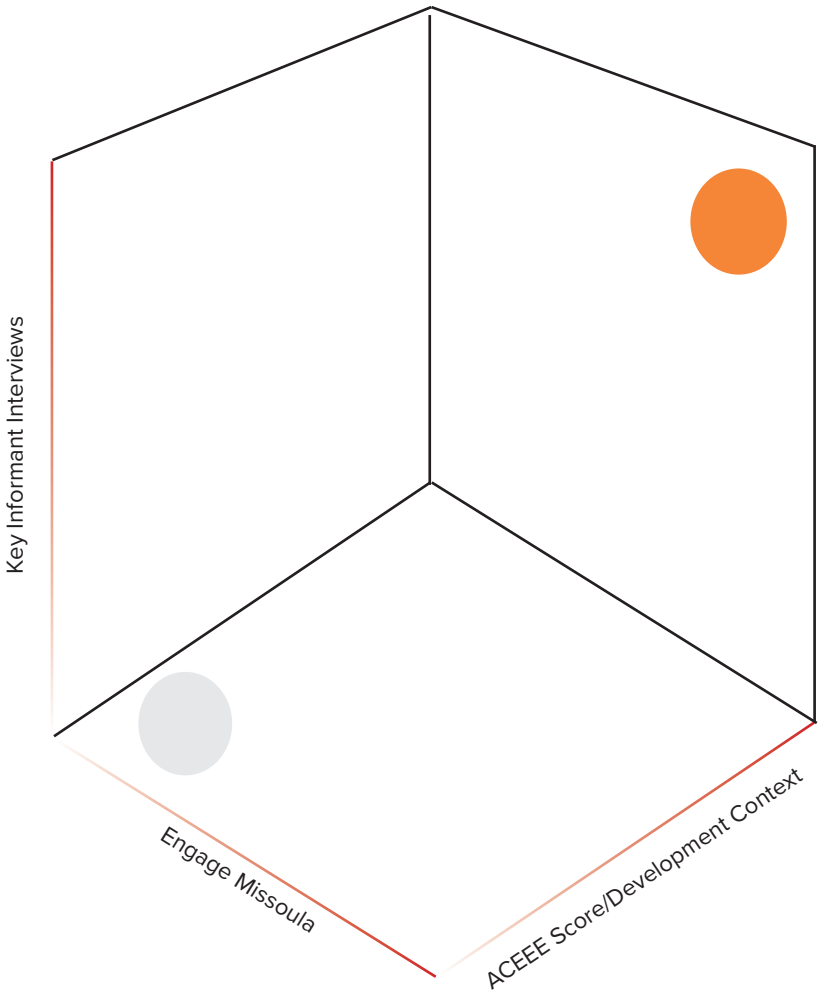
professional interconnections, and barriers. For the semi-structured interview guide, please see Appendix 2.

The Engage Missoula page simulates the back and forth discussion that would have occurred at the Summit through the use of the Ideas tool, where participants can offer ideas, comment on the ideas of others, and "like" ideas that they support.

The findings from interviews and Engage Missoula will then be analyzed through their relationship to the ACEEE scoring system and their applicability to Missoula's development context (e.g., Does the intended target of the option, such as increased efficiency of multifamily development, intersect with the types of development that have been built in Missoula and are expected to be built in Missoula? By analyzing each tool through this lens, our hope is that a smaller list of tools will rise to the top, though this analysis is still in progress.

An example of what this evaluation matrix could look like is provided below in Figure 4. Each option would be scored and graphed, with lower scores corresponding with lighter colors and higher scores corresponding with darker colors. Options that score highly on all three axes would appear in the orange circle annotated on the graph. Low scoring options would appear in the gray circle. Analyzing the options in the 3-dimensional matrix allows us to prioritize in a more robust and holistic way.

Figure 4. Prioritization Matrix



Next Steps

As mentioned throughout the report, the next steps are continued outreach to prioritize the menu of options and create a detailed roadmap for how local government can take action to reduce building emissions.

Below is a proposed timeline for those activities moving forward:

June - July:

- Qualitative Interviews
- Engage Missoula Outreach

August - September:

- Analysis of Qualitative Findings

It should be noted that we still plan to host a Summit when it is safe to gather large groups in-person to generate more enthusiasm, expand professional networks, and build on the work presented in this report. Many of the materials that were developed pre-cancellation will be applicable when we are able to gather large groups of people.

Appendices

Appendix 1: ACEEE Self-Scoring Tool

Preliminary Information	
Which best describes your community's residential energy code adoption authority? (1) Code is set at the state level, and local adoption of more stringent codes is not permitted. (2) Code is set at the state level, but local adoption of more aggressive codes is permitted. (3) No statewide code exists, and local adoption of codes is permitted."	State authority only.
Which best describes your community's commercial energy code adoption authority? (1) Code is set at the state level, and local adoption of more stringent codes is not permitted. (2) Code is set at the state level, but local adoption of more aggressive codes is permitted. (3) No statewide code exists, and local adoption of codes is permitted."	State authority only.
Does your city have legal authority to pass a multifamily energy benchmarking ordinance?	Yes.
Does your city have legal authority to pass a commercial energy benchmarking ordinance?	Yes.
Has your city passed a mandatory multifamily energy benchmarking ordinance?	No.
Does your city have the legal authority to require building owners conduct additional energy-saving actions?	No.

Building Code Adoption			
Metric	**Question**	**Scoring Criteria**	**Score**
Residential code stringency	What is your city's residential energy code?	It is lower than 55.5.	2.5
Commercial code stringency	What is your city's commercial energy code?	It is between 51.8 and 53.7.	1.5
Code advocacy	Does your city lobby the state for more-stringent residential energy codes?	No.	0
Solar-ready requirements	Does your city require new buildings install solar-ready infrastructure?	No.	0
EV-ready requirements	Does your city require new buildings install electric vehicle-ready infrastructure?	No.	0

Building Code Compliance			
Metric	**Question**	**Scoring Criteria**	**Score**
City staffing	Does your local government have at least one regular, full-time employee whose primary duty is energy code compliance?	No.	0
Up-front support	Does your local government provide developers, builders, or owners with up-front support on building energy code compliance?	No.	0
Compliance strategies	Does your city administer a mandatory compliance verification program that includes any of the following actions: plan reviews, field inspections, or performance testing?	The city requires either plan reviews and field inspections or performance testing.	1

Incentives			
Metric	**Question**	**Scoring Criteria**	**Score**
Incentives or financing programs	Does the local government provide incentives and/or financing programs for energy efficiency upgrades, solar energy installation, and/or low-income energy improvements? If so, how many incentives and/or financing programs are offered?	No.	0

Building benchmarking, rating, and energy use transparency			
Metric	**Question**	**Scoring Criteria**	**Score**
Multifamily	What percent of multifamily buildings are covered under your city's benchmarking policy?	No.	0
Commercial	What percent of commercial buildings are covered under your city's benchmarking policy?	No.	0
Single-family	Has your city passed an energy use and transparency policy for single-family homes?	No.	0

Workforce Development			
Metric	**Question**	**Scoring Criteria**	**Score**
Energy efficiency workforce development	**Has your city implemented any of the following actions aimed at creating a dedicated energy efficiency workforce within the past five years?** (1) Supporting workforce development programs alongside energy efficiency policies and/or facilitating third-party training opportunities (2) Enacting inclusive procurement and contracting processes for energy efficiency projects”	No.	0
Renewable energy workforce development	**Has your city implemented any of the following actions aimed at creating a dedicated renewable energy workforce within the past five years?** (1) Supporting workforce development programs alongside renewable energy policies and/or facilitating third-party training opportunities (2) Enacting inclusive procurement and contracting processes for renewable energy projects “	No.	0

Total Score	**5.0**

Appendix 2: Key Informant Interview Guide

Past Experience

1. Do you have experience building beyond code? If yes, could you tell me about a project that you are particularly proud of? If not in Missoula, ask about their Missoula specific experience as well.
2. In those projects where you have built beyond code, what were the motivating factors behind that decision?

Professional Interconnections

1. We're interested in learning more about how various professions interconnect during the life of a project and where they overlap. On a scale of 1 - 5, with 1 being no interaction and 5 being frequent contact, how much do you interact with other stakeholders during the course of a project?
    Architect
    Engineer
    Developer
    Builders/Contractors
    City Staff
    Finance Institutions
    Real Estate Agents
2. Of those you interact with frequently, please tell me more about that relationship.
3. Prompts: topics discussed, issues that arise, moments of success/failure
4. Of those you do not interact with, why is that the case? Do you see this as a problem? If so, do you have thoughts on how to improve the situation?
5. Is there anything you would like to add?

Menu of Options

1. The table you reviewed has many different tools that Missoula could use to advance building for the future. Generally speaking, there are three types of approaches: incentive based, regulatory, and educational. Which do you think Missoula should pursue, and why? (e.g., It's the most effective, matches current appetite and skill level) If you think a mixture should be pursued, can you give an estimate of the weight that should be given to each?
2. Of the incentive-based tools, which do you think would be the most compelling?
3. Of the regulatory tools, which do you think have the most political / industry support?
4. Of the educational tools, which do you think would be the most effective?
5. Which would you like to see the Missoula community pursue? Why?
6. Is there anything that Missoula is currently doing that you would like to see more of?
7. Is there anything that you would like to see changed?
8. Is there anything on the table that you think is inaccurate? Is there anything missing?

Sector Specific

Architects

1. Can you envision an education campaign aimed at clients that would make it easier for you to do low-carbon design? What would it look like?

Realtors

1. Do you discuss green building components with clients when selling or renting a unit?
2. On a scale of 1 - 5, with 1 being not comfortable and 5 being very comfortable, how would you describe your comfort level with discussing "green features"? HERS Scores?
3. During your continuing education, have you taken modules on the topic?

Opportunities and Barriers

1. In the next 2 - 3 years, what do you see as the biggest opportunities for expanding community knowledge of, and support, for building beyond code?
2. Of the barriers you face in building beyond code, which do you think are the most preventative?

Final Questions

1. Has COVID (health and economy) crisis altered how you are thinking about your profession? If so, how?
2. We're interested in displaying the energy use of notable/large buildings around town on a map. Are there any projects you would be willing to voluntarily disclose the energy use for?
3. We have a list of professionals that we're interested in talking with, but is there anyone from our community who comes to mind that would be important to furthering this conversation?
4. Is there anything else you'd like to add?
5. Do you have any questions for me?

Endnotes

1 Cilimburg, Amy, Caroline Lauer, and Chase Jones. *Missoula Community Emissions Inventory.* Missoula, MT. 2017.

2. Dave Hewitt, “Building Energy Codes for a Carbon Constrained Era: A Toolkit of Strategies and Examples” (Northeast Energy Efficiency Partnership, December 2017), https://neep.org/sites/default/files/resources/Building%20Energy%20Codes%20for%20a%20Carbon%20Constrained%20Era%20-%20A%20Toolkit%20of%20Strategies%20and%20Examples.pdf.

3 Erase40. Accessed June 17, 2020. https://www.erase40.org/.