CLIMATE SMART
MISSOULA

How to Determine Submit a New Offset Project

If you're involved in a project that you think might be a good fit for generating future offsets, please review this guidance and then contact Amy Cilimburg at Climate Smart via footprint@climatesmartmissoula.org.

Below are the general calculation steps for offset projects. But first, it is important to address the issue of ***additionality***. For a carbon offset to be valid, it must fund greenhouse gas reductions that *would not have happened otherwise*. That is, the reduction is additional to the business-as-usual scenario. If the purchase money for the offset merely displaces another source of funding, there are no *additional* savings, and the offset is invalid. Put another way, the offset is not just a way to shave project costs, it must fund an activity that would not have occurred otherwise.

With that said, the general steps for calculating an offset project are:

1. **Determine options for greenhouse gas reductions (GHG)**. These will vary by project, but can include:
    a. Selecting different materials
    b. Modifying construction techniques or building design
    c. Building envelope improvements
    d. HVAC and Electrical systems
    e. Renewable energy

    Of these techniques, building HVAC systems are often the most impactful, since they consume energy for the life of the building. However, certain building materials, especially concrete, have enormous carbon footprints during the manufacturing process. The project design team should investigate a variety of options that will be unique to each project.

2. **Estimate carbon savings**
    a. For projects that are utilizing building envelope or HVAC system improvements, estimating GHG reductions begins with a calculation of energy savings. Create an energy model that complies with ASHRAE and DoE requirements. Convert energy savings to greenhouse gas emissions. Please contact us for more detailed information on how to do this.
    b. For projects that are focused on GHG reductions by selecting different building materials, include a carbon calculation that includes material manufacturing, transportation, and replacement costs. There are several free software programs available to calculate material GHG emissions (https://www.woodworks.org/experttip/feb-2020/).

3. **Obtain pricing**
    a. Obtain pricing for the initial construction cost of your measures. Early in the design process, estimates can be used in lieu of final pricing. However, bid pricing will be required once design is complete.

4. **Calculate price per ton**
    a. Nationally, the median price per ton for carbon is approximately $20 per ton of CO2e (Carbon Dioxide equivalent). Locally, we may find entities willing to pay a somewhat higher price, although this will vary by project.

We want to find successful projects, so contact us if you think you may have an opportunity for funding. We can assist you in getting the right data to determine eligibility. Footprint@climatesmartmissoula.org