

# NHPA Carbon and Energy Footprint

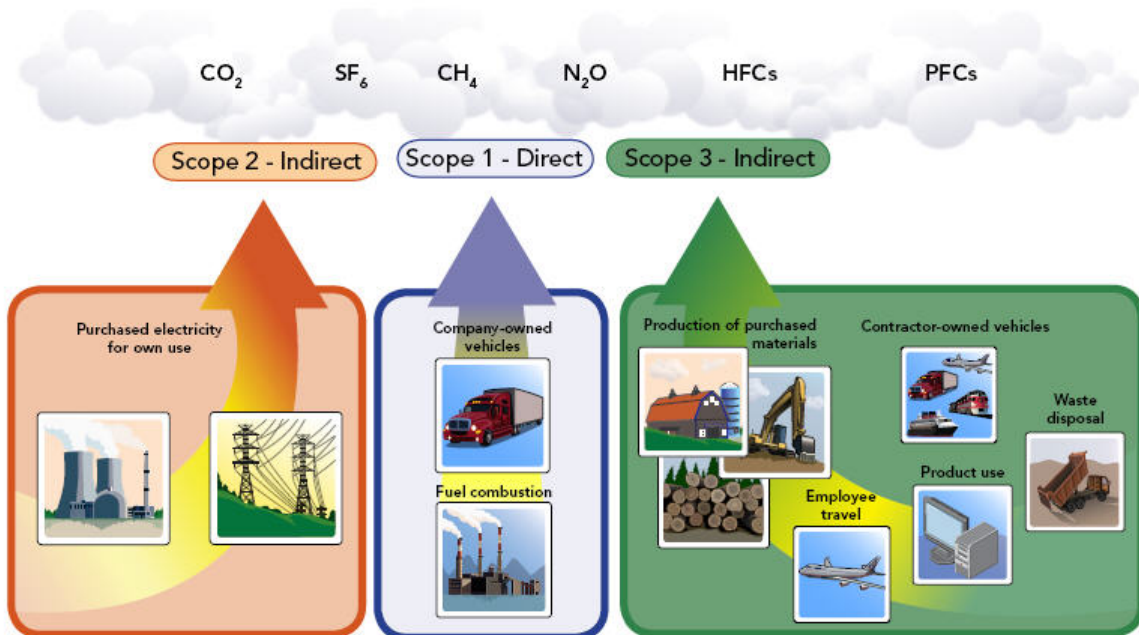
*This report was modeled after “Carbon Footprinting The Kendall Foundation’s Experiences and Lessons Learned”, by Jonathan S. Peterson, Henry P. Kendall Foundation January 2008*

## Defining Boundaries:

Any effort to measure or report institutional greenhouse gas emissions must begin by addressing the question of boundaries—institutional, operational and temporal. Maintaining consistent boundaries regarding *what* is being measured, *where*, and in reference to *when* is vital; equally important is a commitment to transparent, unambiguous reporting of the boundaries established.

*Institutional boundaries* relate to the question of where, or for what operations, an institution will be examining its carbon footprint. For some organizations this may be fairly straightforward; for others like NHPA, without any full time staff, meeting space, and no organizational vehicles, setting these boundaries can be less straightforward. Once an organization has identified where they will be tracking greenhouse gases, they next need to determine which emissions they will be counting.

*Operational boundaries* are those that limit the scope of this investigation. Such limits are necessary because activities that directly result in the creation of greenhouse gas emissions are ubiquitous. Some of these sources are obvious; when fuel is burned on site, for example, or electricity is used. Beyond those obvious sources, however, one could count carbon endlessly—carbon dioxide resulting from the production and distribution of purchased goods, methane from waste disposal, nitrous oxides from the treatment of wastewater.



Emissions can be categorized as Scope 1, 2 and 3 type emissions. Scope 1 emissions are direct emissions that are generated on site. For NHPA, this would include the emissions generated at the Local Government Center building due to heating the building. Scope 2 emissions are in direct emissions such as the electricity used at the Local Government Center building. At a minimum, it is recommended that institutions report all Scope 1 and Scope 2 emissions sources.

Scope 3 emissions pose the biggest challenges when setting operational boundaries. Scope 3 emissions are all the other indirect emissions that are "a consequence of the activities of the institution, but occur from sources not owned or controlled by the institution". Examples of Scope 3 emissions include: employee commuting, waste disposal, outsourced activities, contractor owned-vehicles. It is considered best practice to try to measure and report those Scope 3 sources when possible that are 1) substantial 2) credibly quantifiable and 3) in the power of the institution to influence, if not control.

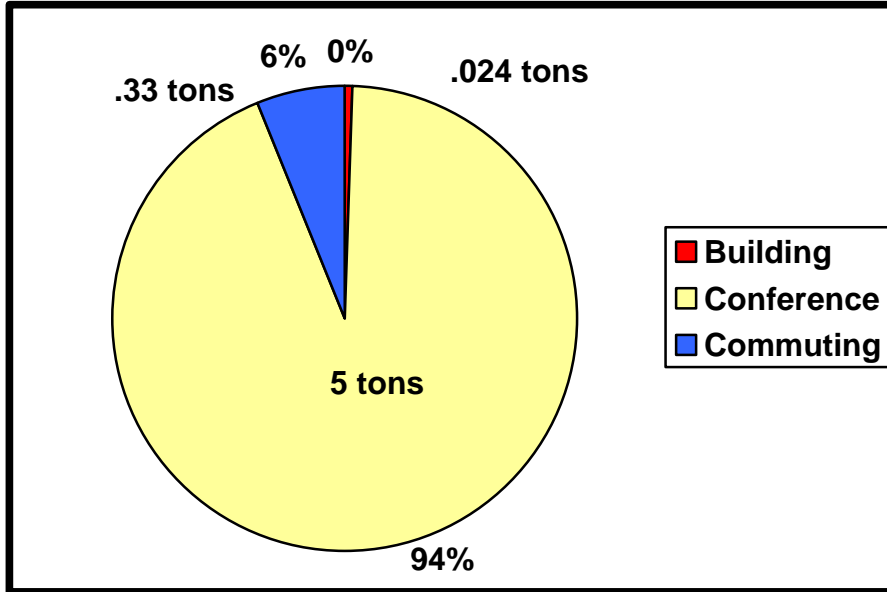
#### Summary of NHPA Boundaries:

In 2008, NHPA's boundaries included the room space used at the Local Government Center for monthly Executive Committee meetings, travel to and from the meetings, along with the emissions associated with the building space and attendee travel to and from the NHPA conference. The major sources of Scope 1 and Scope 2 emissions are from fuel and electricity use to heat and cool the Local Government Center building NHPA uses for Executive Committee meetings. We have also included Scope 3 emissions that are substantial and/or influenced by NHPA policies and operational activities. These include emissions associated with executive committee members traveling to and from meetings along with the building and travel emissions associated with the annual conference hosted by NHPA.

## NHPA 2008 Footprint

NHPA emitted **5.35 metric tons** of carbon dioxide in the 2008 calendar year.

### Sector Comparison:



These figures result from a basic carbon footprint analysis that focuses on carbon dioxide emissions. As such, these should not be viewed as exact measurements but instead represent accurate estimates of our emissions profile.

Electricity accounted for .004 tons while heating (natural gas) accounted for .02 tons of emissions for a total of **.024 tons** in Scope 1 and 2 emissions associated with the building.

Executive Committee members commuting to monthly NHPA Executive Committee meetings generated **.33 tons** of emissions.

NHPA also calculated the emissions associated with the 2008 NHPA Annual Conference. These were emissions based on the number of attendees traveling from different locations throughout the state to attend the conference. It also accounted for the emissions associated with the hotel rooms for over night stays due to the conference along with the heating and electricity associated with the meetings rooms during the conference. The 2008 NHPA Annual Conference generated approximately **5 tons** of emissions.

### **The Next Step: Reduction Strategies and Offsets:**

Carbon reduction strategies and carbon offsets present a two-pronged approach to achieving responsible organizational behavior through the limiting of greenhouse gas emissions.

The recommended strategy for achieving emission reductions is to implement policies or projects that actually reduce the energy used resulting in the emissions followed by offsetting what can't be reduced. The widely accepted prioritization hierarchy to reduce greenhouse gas emissions is: **remove, reduce, replace and then offset.**

After an inventory is completed, an organization may discover emissions they are responsible for that can be avoided altogether. This is the first step because it doesn't just lower emissions through reduction initiatives and projects but completely eliminates them through the removal of certain practices or policies.

The reduction of emissions deals with conservation and efficiency measures. These practices can reap immediate financial benefits. These are predominantly behavioral changes, such as activating the power-saving modes on computer monitors or powering down equipment when it is not in use, thereby decreasing electricity consumption and resultant carbon emissions.

After employing energy conservation and efficiency measures an organization can begin to look at replacement technologies to reduce emissions. Included here would be the replacement of traditional lighting with energy efficient lighting and the purchase of leading energy efficiency office equipment when upgrades are needed.

Finally, an organization can consider offsetting the emissions associated with policies or behaviors the organization has little or no control over.

Based on this inventory and footprint, NHPA plans to research and investigate the following options for 2009:

**Car pooling to NHPA monthly meetings, Conference greening: composting, bulk, recycling, Creating an electronic directory versus paper, Emphasizing electronic materials for conferences, and workshops, and measures to reduce emissions associated with the annual conference, professional development workshops and the annual meeting.**

NHPA will also include emissions associated with paper materials and other workshops and meetings associated with NHPA for the 2009 footprint and inventory.