The STAPPA/ALAPCO and ICLEI
Clean Air and Climate Protection Software

Fact Sheet

What is STAPPA/ALAPCO and ICLEI's Clean Air and Climate Protection Software (CACPS)?

CACPS is a user-friendly, Windows-based software that will help state and local governments make smart decisions on strategies to reduce emissions of air pollutants and greenhouse gases (GHGs).

Why do state and local officials need it?

States and localities are preparing to meet new air quality requirements related to 8-hour ozone, fine particulate matter ($PM_{2.5}$) and regional haze, in addition to existing air quality requirements. States and localities can use CACPS to help design emission reduction strategies that address these regulated air pollutants and reap collateral GHG benefits. Alternatively, states and localities with GHG reduction targets or action plans can use CACPS to estimate the collateral criteria pollutant reduction benefits of their GHG reduction actions.

What can it do?

CACPS can help state and local officials:
- create an inventory and forecast emissions of so-called criteria air pollutants – nitrogen oxides, sulfur oxides, carbon monoxide, volatile organic compounds and coarse particulate matter – and GHGs,
- evaluate policies to reduce emissions of these pollutants and
- prepare emission reduction action plans.

The components of CACPS can be used independently, to evaluate a single measure, or in combination, to develop a comprehensive action plan.

What are some specific examples of how it can be used?

Some examples of how states or localities can use CACPS are to:
- help determine how many measures are needed to reach a GHG or air pollutant reduction target,
- calculate the emission reduction benefits of a program to double transit ridership,
- calculate the emission reduction benefits of switching from residential electric heating to natural gas heating and
- calculate the emission reduction benefits of making government buildings more energy efficient.

How does it forecast emissions or calculate emission reductions?

CACPS contains thousands of emission coefficients for all of the major air pollutants and GHGs for a range of technologies, regional electricity mixes and fuel types. So, for example, if a state or locality planned measures that would reduce residential electricity consumption by 10 percent, the software would calculate the reduction in electricity demand (gigawatt hours, for example, or whichever unit the state or locality chooses) using a "before" and "after" scenario. Then, based on which regional electricity grid the state or locality is in, the software would apply the appropriate emission coefficients to calculate emission reductions.

How is it set up?

CACPS is divided into two modules or sectors – community and government – so that state and local governments can analyze the impact of reducing their own emissions (government) or the impact of adopting actions to encourage the community at large to reduce emissions (community). Within these modules are subcategories to distinguish types of actions and inventories. For the community sector, the software is subdivided into residential, industrial, commercial, transportation and waste subcategories, as well as an "other" subcategory for actions that do not readily fit in the other categories. For government actions, there are subcategories for buildings, vehicle fleet, employee commute, streetlights, water/sewage, and waste, as well as an "other."

Who are STAPPA/ALAPCO and ICLEI?

STAPPA – the State and Territorial Air Pollution Program Administrators – and ALAPCO – the Association of Local Air Pollution Control Officials – are the two national associations of air pollution control agencies in 54 states and territories and more than 165 metropolitan areas across the country. For further information, go to www.cleanairworld.org/scripts/stappa.asp.

ICLEI – the International Council for Local Environmental Initiatives – is an international association of local governments – including over 450 cities, towns, counties and their associations around the world – implementing sustainable development. For further information, go to www.iclei.org.