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Cost Analysis Models/Tools for Air Pollution Regulations

EPA develops and applies methodologies for estimating the costs of air pollution regulations. Products include cost methodology manuals, spreadsheets for estimating costs, control strategy software, databases of emission control measures, and other useful information related to air pollution control costs. Provided below are the cost-related models and tools maintained by EPA.

On this page:

- [EPA Air Pollution Control Cost Manual](#)
- [Control Strategy Tool](#)
- [Related Control Cost Information](#)

EPA Air Pollution Control Cost Manual

The EPA Air Pollution Control Cost Manual provides guidance for the development of accurate and consistent costs for air pollution control devices. The Control Cost Manual focuses on point source and stationary area source air pollution controls for volatile organic compounds (VOCs), particulate matter (PM), oxides of nitrogen (NO_x), and some acid gases (primarily SO₂ and HCl). More information on the Control Cost Manual is available at [Cost Reports and Guidance](#).

Control Strategy Tool

The Control Strategy Tool (CoST) is a client-server system and is part of EPA's Emissions Modeling Framework (EMF). The purpose of CoST is to model the emission reductions and engineering costs associated with control strategies applied to point, area, and mobile sources of air pollutant emissions to support the analyses of air pollution policies and regulations. CoST accomplishes this by matching control measures to emission sources using algorithms such as "maximum emissions reduction" and "least cost". Control strategy results can be exported to CSV files or viewed in a graphical table that supports sorting, filtering, and plotting. The results can also be merged with the original inventory to create controlled emissions inventories that can be exported to the emissions model SMOKE.

The Control Strategy Tool was developed as a replacement for the AirControlNET (ACN) software tool which is no longer supported by EPA. It was determined in 2006 that it was an appropriate time to replace the ACN software with newer software that could provide improved functionality and transparency to support current and upcoming needs. A prototype version of the Control Strategy Tool was developed in 2006 and a fully functional version was developed in 2008. The tool has the functionality of AirControlNET but with added capabilities, including:

- the ability to insert emissions inventories almost seamlessly from the Emissions Modeling Framework (EMF)
- the ability to insert new control measure data
- easier for users to track their analyses and create summary reports and output files
- quality assurance (QA) steps provided for identifying errors in emissions and control measure data

Information on control efficiencies and costs is contained in the Control Measure Database (CMDB). This database currently focuses on criteria pollutants.

The CoST software (version 3.2) is available for download (see below). Documentation for the tool is included on this web site (below). Contact Brian Keaveny at keaveny.brian@epa.gov for general information about CoST.

Access to the CoST Software and Training Manual/User's Guide

EPA's Control Strategy Tool (CoST) version 3.2 is available on the Community Modeling and Analysis System (CMAS) website at the link below. From the CMAS website, you can access both the Java code that is used to build the server and client applications, and files with SQL statements to create and update the database tables and stored procedures. You can also access the CoST Training Manual and User's Guide which contains installation instructions and exercises for applying the tool.

The following links exit the site EXIT

CoST Software and Training Manual/User's Guide on CMAS	
CoST Version 3.2 Software	08-2018
CoST User's Guide (HTML)	08-2018

Additional CoST Documentation and Control Measure Data

You may need a PDF reader to view some of the files on this page. See [EPA's About PDF page](#) to learn more.

A link to additional CoST documentation is listed below. Also below is a link to the CoST Control Measure Database (CMDB) files. The files listed below are in PDF format unless noted otherwise and can be downloaded by clicking on the links.

CoST Documentation and Data	
CoST Development Document (113 pp, 1.3 M)	02-2016
CoST Cost Equations Document (80 pp, 2.1 M)	09-2018
CoST Overview - Text (2 pp, 16 K)	04-2010
CoST Overview - Slides (29 pp, 2.2 M)	06-2010
CMDB for Stationary Sources (CSV) (217 K)	04-2017
CoST Response to Peer Review Comments (22 pp, 388 K)	01-2013

The CoST CMDB "At A Glance" Control Measure Document and the Control Strategy Tool Control Measures Database Documentation are temporarily unavailable because they are being updated with corrected data. The updated documents will be posted on this webpage once revisions are complete. If you would like a copy of either document in the interim, please request it through the Contact Us link at the bottom of this page.

Related Control Cost Information

The Menu of Control Measures (MCM) provides state, local and tribal air agencies with the existing emission reduction measures as well as relevant information concerning the efficiency and cost effectiveness of the measures. State, local and tribal agencies will be able to use this information in developing emission reduction strategies, plans and programs to assure they attain and maintain the National Ambient Air Quality Standards (NAAQS).

Menu of Control Measures

[Menu of Control Measures for NAAQS Implementation - PM & VOC](#)

Air Compliance Advisor

Air Compliance Advisor is a PC-based program to supplement EPA's Air Pollution Control Cost Manual; user inputs specific information about a pollution source to derive pre-control levels of pollution for VOCs, NO_x, PM, and SO₂ and can perform dynamic "what-if" analyses to rapidly develop creative strategies for pollution control. Note that EPA ceased updates to Air Compliance Advisor so the underlying information is no longer current. Contact Larry Sorrels at sorrels.larry@epa.gov for questions about the Air Compliance Advisor.

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