## Using CUAC Module in CBECC

1. Convert MS Access database file

This feature enables users to import project from MS Access database into CBECC and produce new annual reports with the current tariffs in CBECC. Note that users cannot select time-of-use rates since such rates were unavailable in the MS Access tool. This feature is not intended to render a complete file that can be run or updated for compliance but limited to CUAC reporting purposes.
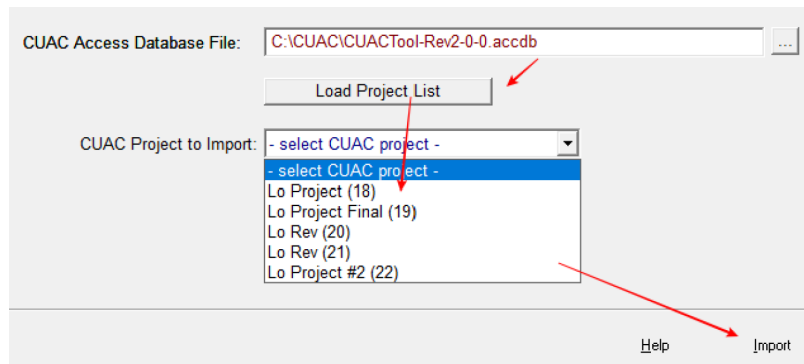
Upon launching CBECC, users are prompted with a startup menu with options. Select "Import old Access DB CUAC project" then "OK."
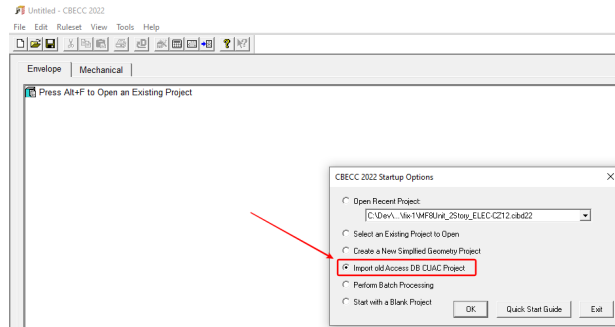
Users then will be prompted to locate the file with either .mdb or .accdb extensions.
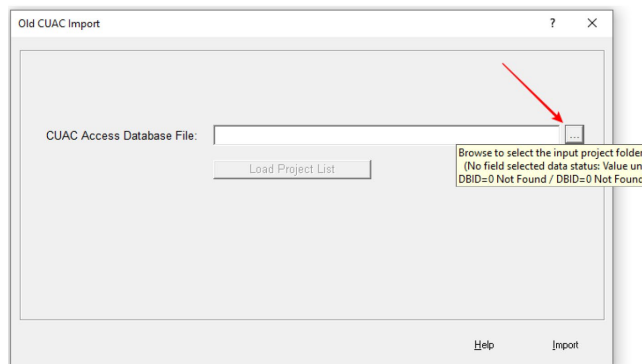
Once the file is loaded, users can "Load Project List." Select "CUAC Project to Import" from the drop-down menu and "Import."

The project is now imported into CBECC and the CUAC window will pop up. Here users can select the appropriate utility rates and click "CUAC Calculate and Report" for the annual updated report.

Users have the option to modify all the inputs on screen to make sure that they match the information in the original Access database file.

Users will be prompted to store the file to a computer. Upon completion of the analysis, users will be prompted with four options. "Continue" or "View Input/Result Details" will provide a CSV file with details for utilities usages calculated hourly. "View Submittal Report" will open up the report type that is pre-chosen before the CUAC run. Finally, "View All Files" will provide all the detailed files of this run.
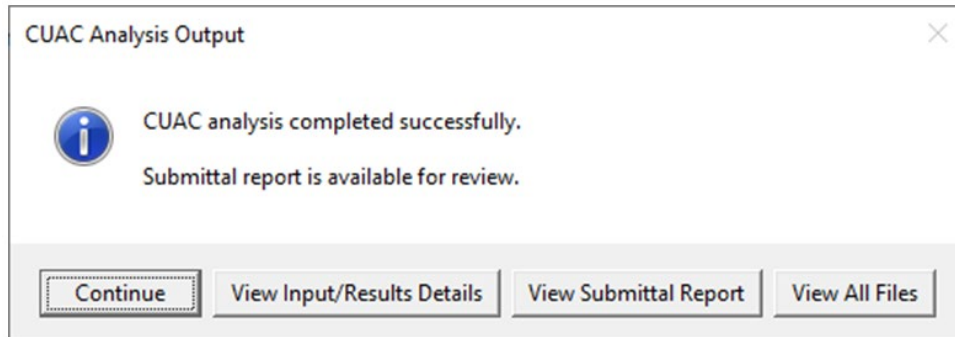
To rerun the file, users can choose to open the saved project file instead of importing the MS Access file.

Guidance for Combining CUACs for Complex Projects

Some affordable housing developments include both single-family and multifamily units, with multiple unit types and energy models. The CUAC Combination Tool can handle this complexity, using a weighted average calculation method to combine different models effectively.

To combine CUACs from single-family and multifamily models:

1. Prepare the CSV Files: Ensure all CSV files meet the requirements mentioned above: same utility rates, consistent weather file, and generated using the latest CBECC/CBECC-Res version. CSV files created using previous versions of CBECC may generate errors and should not be used.
2. Assign Proper Unit Types: Make sure each unit type (Studio, 1-bedroom, 2-bedroom, etc.) is clearly defined, and that energy models are correctly designated in the CSV files. For mixed-market projects, ensure that the affordable units are properly marked to facilitate the weighted averaging.
3. Run the Combination: Use the CUAC Combination Tool as described in the previous steps. The tool will calculate weighted averages on the backend, ensuring accurate representation of utility allowances and energy use across different unit types.


Guidance for Projects with Weather File Mismatch

CBECC-Res utilizes 16 different weather files, one for each climate zone, but CBECC utilizes 96 weather files, with multiple for various climate zones, to improve its precision. CUAC Projects utilizing the CUAC Combiner Tool will need to use the same weather file if possible or use the most accurate weather file available in the software for the relevant models. Projects should not utilize multiple models that are placed in different Climate Zones.

2.   Activate CUAC in CBECC for a New Project

The CUAC module is the California Utility Allowance Calculator used to calculate utility bills for tenants. This version of CUAC is incorporated in CBECC and can be activated from CBECC. Note that it is assumed that users have built a compliance file in CBECC **prior** to using CUAC. The file needs do not meet compliance requirements to run the CUAC module, but it needs to be completely built free of running errors.

Open an existing CBECC file. Click on "Project" to open the Project dialog. Click on "CUAC" tab and check box "Enable CUAC Reporting."
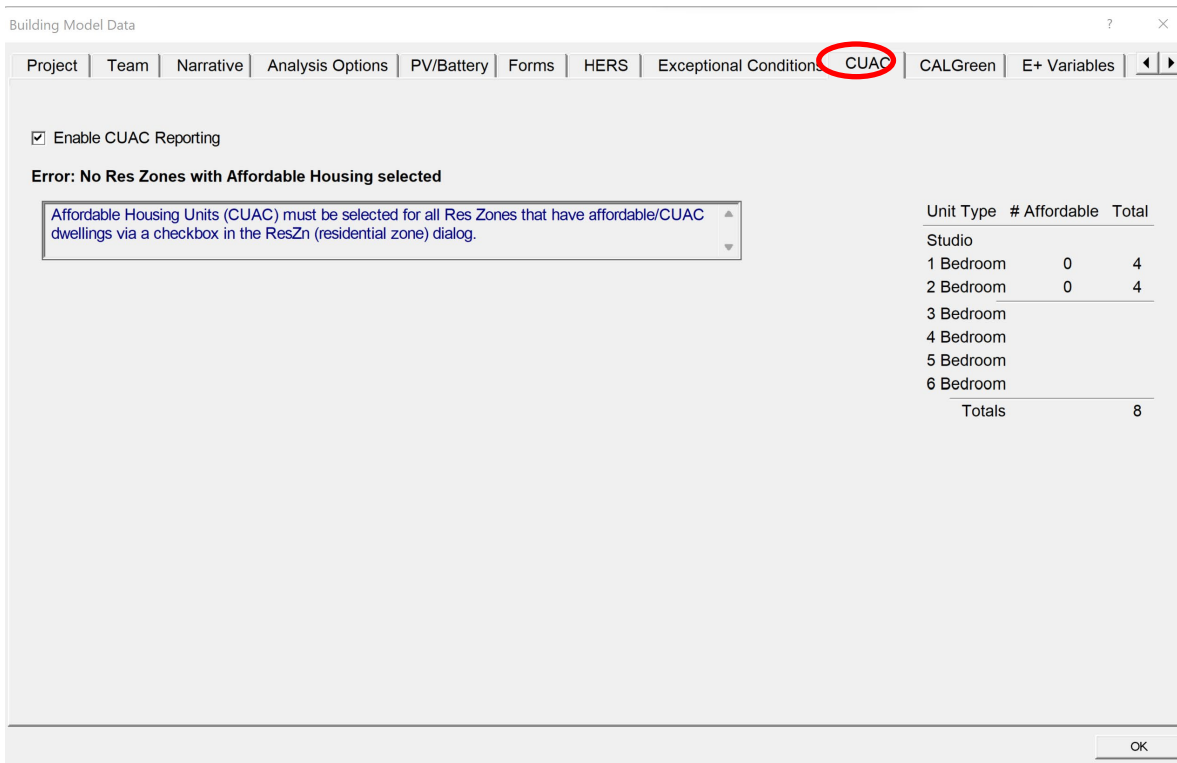
If "Error: No Res Zones with Affordable Housing selected" message is presented, users need to go to the "Zones" under "Project" tree and select the affordable housing units for this project. Once affordable housing units are selected, users can proceed with inputs.

3. **User Inputs**

a. Choose Utility Providers

Select the utility provider (e.g., PG&E - - Pacific Gas and Electricity Company for both Electricity and Gas), territory, tariff rate, and type appropriately for the project for both electricity and gas as shown. Questions related to territories and tariff options need be directed to the applicable utility provider.

For buildings with liquefied petroleum gas or propane, select "Propane" for the gas utility. If fossil gas, renewable gas, synthetic gas nor propane is used in the building, "No Gas" needs to be selected. The propane rate in the CUAC is a statewide average typically adjusted on an annual basis.

Tariff dropdown menu includes "Standard" and "CARE" options. Either "Standard" or "CARE" type is defaulted depending on the selected tariff options. However, users can override the default options if the default option is inappropriate for their projects. Tariff adjuster is either "none" or "VNEM2." California Alternate Rates for Energy (CARE) programs are intended to identify any low-income utility tariff program although the name of the program may vary. CARE rates only apply if ALL tenant households qualify for the special low-income utility rates.

b. Water Bill Inputs
    Choose the applicable Water Bill options from the dropdown menu, which include "Not Paid by Tenant," "Flat Monthly Rate," and "Usage Rate." Enter the monthly cost for "Flat Monthly Rate" option or $/gallon rate with the flat monthly rate if choosing "Usage Rate."

c. Trash Bill Inputs
    Similarly, the Trash Bill has two options: "Not Paid by Tenant" and "Flat Monthly Rate." Enter the $/month for the "Flat Monthly Rate" option.

d. Site Location
    Enter Project information here.

e. PV Allocation / Battery Allocation
    Clicking on "PV Allocation" will pop up the following dialog. The "Use Community Solar" checkbox near the top will override the use of any onsite PV systems in the project data. The PV allocated is separated into each unit type and the total PV needs to add up to 100%. There are two billing options from the drop-down menu: "PV Offsets Monthly Use" or "PV Offsets Monthly Use w/ Carryover." Similarly, if Battery is included, the Battery allocation for all unit types needs to add up to 100%.

If Community Solar is selected, specify the CS project and confirm that the building is within that community solar project's territory – then enter the amount (kW) of community solar contracted for each affordable unit type.

4. **Reporting for CUAC**

Choose the type of reporting for CUAC to produce after it runs. The dropdown options are "draft," "submittal," or "final." Questions regarding these report types need to be directed to Treasury Office. To initiate the CUAC calculations, click "CUAC Calculate and Report." User will be prompted with a pop-up window as shown below.
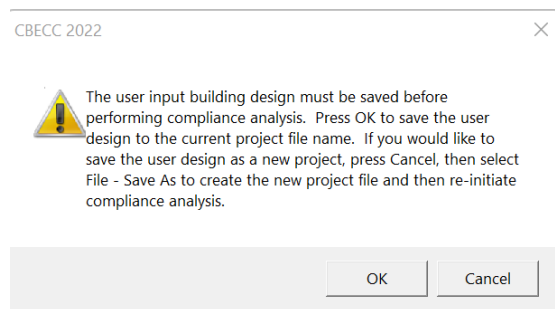
Clicking "OK" to save the project and start the CUAC run or "Cancel" the CUAC run.

If successfully run, user will be prompted with four options. "Continue" or "View Input/Result Details" will provide a CSV file with details for utilities usages calculated hourly. "View Submittal Report" will open the report type that is pre-chosen before the CUAC run. Finally, "View All Files" will provide all the detailed files of this run.