

Southface Small Commercial Energy and Water Assessment Toolkit

This toolkit was developed by Southface through the Advanced Commercial Buildings Initiative in partnership with the U.S. Department of Energy. The toolkit is a supplemental resource to ASHRAE *Procedures for Commercial Building Energy Audits, Second Edition*, and is intended to be used by industry professionals when identifying energy and water efficiency upgrade measures in small commercial buildings. It is strongly recommended that all users read the ASHRAE guide prior to using this toolkit.

We have intentionally kept all of the templates in simple formats so that you may customize them to meet your team's needs. If you do come across a locked cell or sheet, simply unlock it as no passwords are applied in these documents.

There are many additional resources available to assist your energy and water assessment services. The Appendix to this Introduction contains a list of resources Southface uses regularly when conducting energy and water assessments and completing engineering calculations.

If you have any questions while using this toolkit, please contact us at 404-872-3549 or info@southface.org.

Thank you for your contributions in advancing building efficiency in the small commercial market! Please provide us with your feedback regarding the toolkit at <http://www.surveygizmo.com/s3/2689567/ACBI-Toolkit-Feedback>.

Sincerely,

The ACBI Team at Southface

Disclaimer

Southface provides the Southface Small Commercial Energy and Water Assessment Toolkit (Toolkit) for voluntary use by industry professionals in compliance with all relevant safety and building requirements and standards. Southface makes no warranties, expressed or implied, regarding the procedures and information contained in the Toolkit. Southface has no control over the implementation or modification of the Toolkit by users, provides no warranty, and assumes no liability or responsibility for any and all consequences of the implementation of the Toolkit.

Appendix – Energy and Water Assessment Resources

Southface has found the following list of resources useful when conducting energy and water assessments. Southface is not responsible for any of the content contained in or created by these resources, and does not warranty the accuracy of the resources. This list was last updated in April 2016. If links do not work, Southface recommends searching the parent website for the tool or conducting a general internet search, as websites often change.

Type of Resource:	Resource Source:	Resource Location:
Savings and life cycle cost calculators for common residential and commercial building performance equipment (HVAC, lighting, plumbing, etc.).	US DOE & ENERGY STAR, & associated partners/contractors	http://energy.gov/eere/femp/energy-and-cost-savings-calculators-energy-efficient-products https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/save-energy/purchase-energy-saving-products http://energy.gov/eere/femp/building-life-cycle-cost-programs
Solar Hot Water System Calculator	US DOE	http://apps1.eere.energy.gov/femp/solar_hot_water_system/index.cfm
Cash Flow Opportunity Calculator to translate efficiency measures to “dollars and cents.”	ENERGY STAR	https://www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/find-financing/calculate-returns-energy-efficiency
Building Upgrade Value Calculator: determines the energy and financial benefits of particular efficiency investments.	ENERGY STAR	https://www.energystar.gov/buildings/tools-and-resources/building-upgrade-value-calculator
Calculation software for energy-efficient windows.	RESFEN	https://windows.lbl.gov/software/resfen/resfen.html
Rooftop Unit Comparison Calculator: allows user to compare rooftop equipment for energy and cost savings.	PNNL	http://www.pnnl.gov/uac/costestimator/main.stm
Lighting Input Wattage Guide: provides typical lighting fixture wattage. ¹	Xcel Energy	http://www.xcelenergy.com/staticfiles/xcelenergy/Marketing/Files/NM-Bus-Lighting-Input-Wattage-Guide.pdf

¹ The workbook currently contains lighting wattage based on Georgia Power assumptions. The Xcel Energy resource is another guide for comparison. If you prefer to use the Xcel Energy lighting wattages, you will need to update the assumptions under the Reference tab in the workbook, or override Fixture Watts in the Lighting Survey & Analysis tab.

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Building Energy Asset Scoring Tool assesses the physical and structural energy efficiency of buildings and provides recommendations for improvement.	U.S. DOE & associated partners/contractors	http://energy.gov/eere/buildings/building-energy-asset-score
Retrofit Savings Estimator runs simplified building models to make recommendations for energy efficiency improvements.	New Buildings Institute and The Weidt Group	http://newbuildings.org/resource/retrofit-savings-estimator/