



NORTHWEST
STRATEGIC ENERGY MANAGEMENT
COLLABORATIVE

Tool Lending Library

The Smart Buildings Center Tool Lending Library & Other Resources



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Building Potential



► Envisioning a World with Net-Zero Carbon Emissions

Building Potential's mission is to eliminate carbon emissions from building energy use through market-based thought leadership, education, and advocacy.



(Formerly Northwest Energy Efficiency Council or NEEC)



Programs

- Smart Buildings Center
- Building Operator Certification (BOC)
- Remote Learning Library
- YouTube Training Series
- Clean Buildings Performance Standard Helpdesk
- Tool Lending Library



SMART BUILDINGS CENTER



Non-profit Education Program
Events – Networking
Training – Classes, Webinars
Demonstration – Data Visualizations
Tool Lending Library

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Building Operator Certification

Meeting the challenge of an evolving workforce

Developing knowledge and skills in:

- ✓ HVAC and lighting - operations & maintenance
- ✓ Controls
- ✓ Benchmarking energy performance
- ✓ Building scoping
- ✓ Performance standard compliance
(BOC Level II = CBPS “qualified person”)
- ✓ Smart Technology
- ✓ Electrification

theboc.info

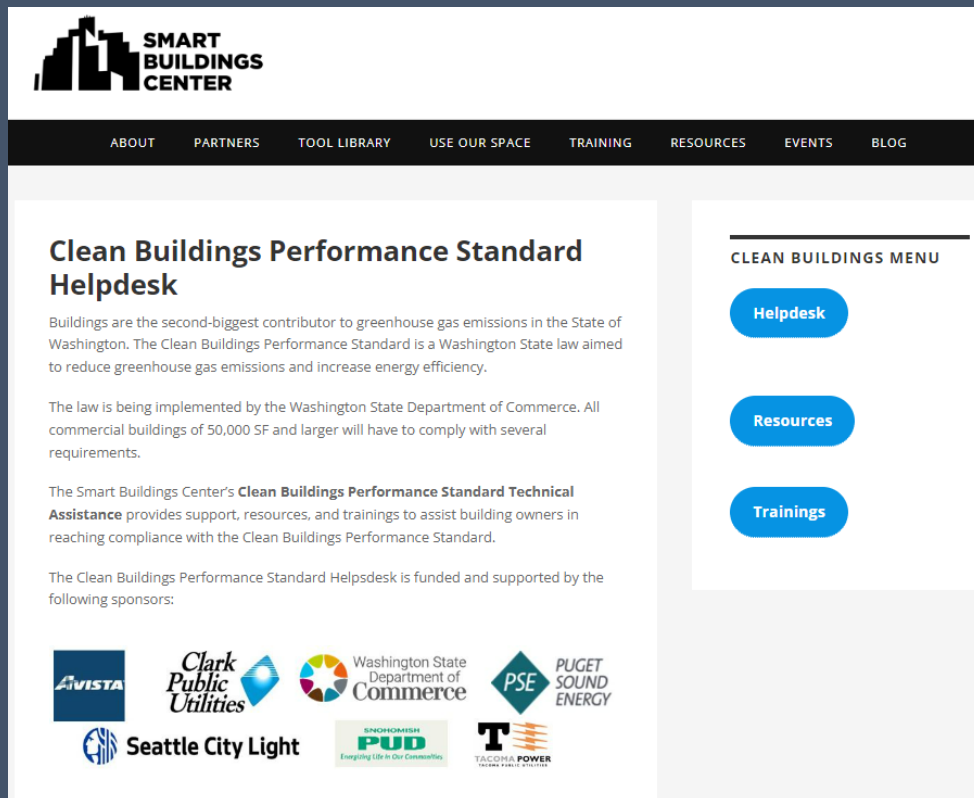


Certified Building Operators
in the PNW save their orgs
an average of \$10-12k
annually!



CBPS Helpdesk

- Offering free:
- One-on-one consultations
 - Resources
 - Training videos



SMART BUILDINGS CENTER

ABOUT PARTNERS TOOL LIBRARY USE OUR SPACE TRAINING RESOURCES EVENTS BLOG

Clean Buildings Performance Standard Helpdesk

Buildings are the second-biggest contributor to greenhouse gas emissions in the State of Washington. The Clean Buildings Performance Standard is a Washington State law aimed to reduce greenhouse gas emissions and increase energy efficiency.

The law is being implemented by the Washington State Department of Commerce. All commercial buildings of 50,000 SF and larger will have to comply with several requirements.

The Smart Buildings Center's **Clean Buildings Performance Standard Technical Assistance** provides support, resources, and trainings to assist building owners in reaching compliance with the Clean Buildings Performance Standard.

The Clean Buildings Performance Standard Helpdesk is funded and supported by the following sponsors:

AVISTA **Clark Public Utilities** **Washington State Department of Commerce** **PSE PUGET SOUND ENERGY** **Seattle City Light** **PUD** **TALCOTTA POWER**

CLEAN BUILDINGS MENU

- Helpdesk
- Resources
- Trainings

SCAN ME

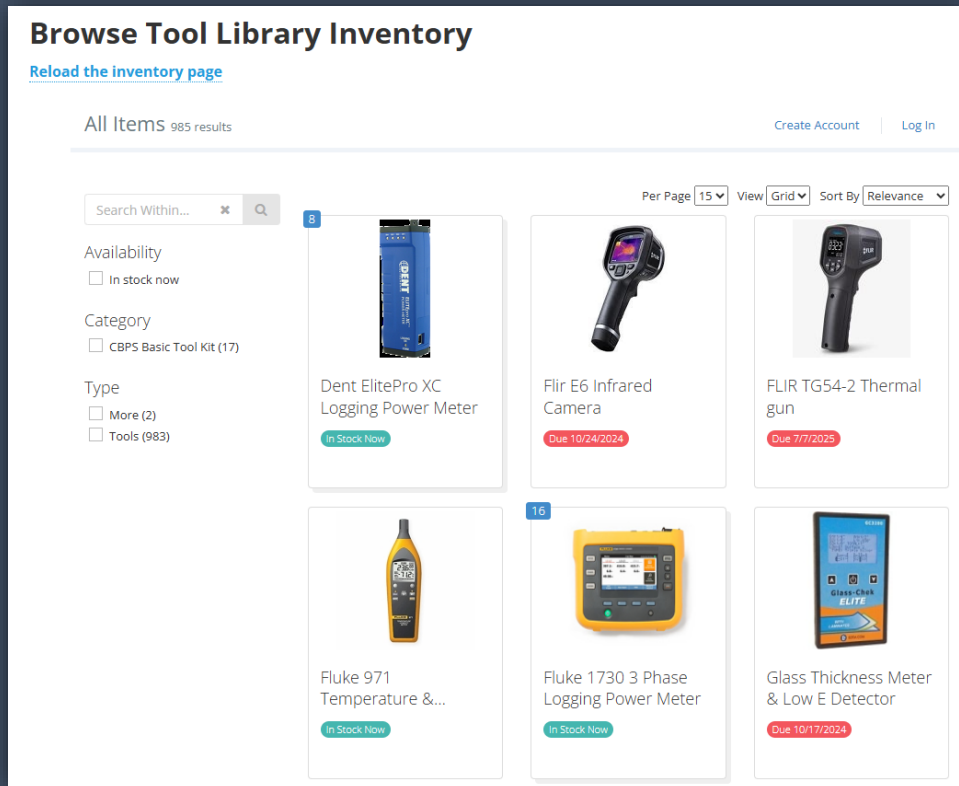


Tool Lending Library



- Diagnostic & monitoring tools
- Over 85 tool types
- Online reservation system
- Typical loan period 2 - 4 weeks
- Local pickup or shipped

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Tools include:

- Data loggers
- Power logging meters
- Infrared/thermal cameras
- Air flow testing equipment
- Liquid flow meters
- Manometers
- Indoor air quality testing equipment
- And more!

smartbuildingscenter.org/tool-library



Tool Resources

Tool Resources

Notes, Guides, & Instructions

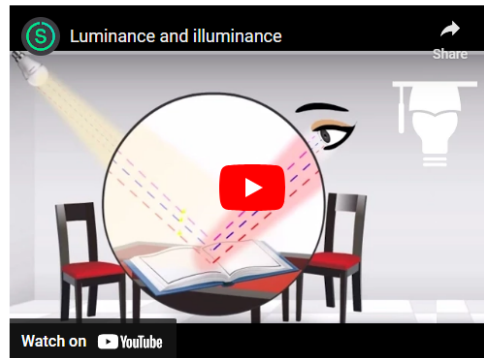
We've collected the following resources to help first time users make the most of the tools from our Tool Lending Library. Please be aware that some of the more complex tools like ultrasonic flow meters and balometers require experience to obtain accurate data. Other tools like electric power meters require licensed electricians. Additional videos on diagnostic tool applications are available on the [Smart Buildings Center YouTube Channel](#).

Building Envelope

- [User Manual for GC3200 Glass Check Low-E Coating](#) 1.3 MB

Lighting

- [A Simple Illuminance Field Study](#) 665 KB*
- [Energy Savings & Occ. Sensors](#) 67 KB*
- [Minolta LS-100/LS-110- Luminance Meter](#) 473 KB*
- [Recording Light Fixture Operation](#) 169 KB*
- Luminance vs. Illuminance video:



Mechanical & HVAC

- [Assessing Air Pressure in Buildings video](#)
- [Assessing Economizer Performance](#) 136 KB*
- [CO2 Measurement for Healthier Air in Buildings video](#)
- [Data Loggers for Energy Efficiency Building Operation](#) 1.1 MB
- [Facility Managers Guide to Data Logging](#) 1.4 MB**
- [Healthier Air in Buildings Tools & Strategies video](#)
- [Identifying Fan Operation During Unoccupied Hours video](#)
- [Using Data Loggers to Verify Boiler Hot Water Reset](#) 554 KB
- [Verifying Condensing Boiler Efficiency video](#)
- [Verifying Boiler Temperature Reset Control video](#)
- [Verifying Exhaust System with Flow Hood video](#)
- [Using Data Loggers to Improve Chilled Water Plant Efficiency](#) 633 KB**
- [Using Data Loggers to Address Comfort Complaints](#) 714 KB**
- [Using Data Loggers Beyond Equipment Scheduling](#) 1 MB**
- [Analyzing Air Handlers with Data Loggers](#) 1.8 MB**
- [Verifying Proper Operation of Outdoor Air Damper Controls video](#)
- [Investigate Demand Control Ventilation](#) 297 KB
- [Measuring Ventilation System Effectiveness video](#)
- [Flexim F601 Ultrasonic Flow Meter](#) 487 KB*
- Flexim Portable Meter Training video:



time for ...



THANK YOU!

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