

## Washington Clean Energy Testbeds Rate Structure (Effective 7/1/23)

The Washington Clean Energy Testbeds (WCET) is a non-profit business unit within the University of Washington (UW). WCET is mandated to charge time and materials on a cost reimbursement basis. Academic pricing is achieved through state subsidies. Industrial rates are set for cost recovery. Cost basis for rates is based on cost of operation divided by utilization.

### ***User Classifications:***

The following user classifications determine eligibility for specific rate plans:

**University of Washington and Affiliates:** University of Washington researchers or affiliate-sponsored researchers (e.g. UW APL) qualify for **Tier 1** pricing. Candidates eligible for **Tier 1** Rates are not assessed an overhead rate as the UW overhead rates are already applied to the research grant or other internal UW funding. These users must pay with a UW budget number.

**Non-Profit:** Researchers employed by or with appointments at non-UW academic institutions, government organizations, or other non-profit organizations qualify for **Tier 2** pricing. These candidates are charged **Tier 2** rates plus an overhead charge.

**Industry:** Any employees of non-academic and non-government organizations who intend on using the WCET facility for self-directed work qualify for **Tier 3** pricing. These candidates are charged **Tier 3** rates plus an overhead charge.

**Remote:** Entities that solely seek to conduct limited scope process work that is to be conducted by WCET staff provided on a best-effort, time and materials cost reimbursement basis that includes the pro-rated hourly equipment plus engineering rate (\$150/HR) and overhead. Due to the experimental nature of work, WCET cannot guarantee quality assurance in meeting all remote work specifications, but will use best-effort methods to attempt to obtain a satisfactory result for the client.

**Multiple Affiliations:** Users with multiple affiliations and projects may be classified into multiple rate structures, but all plan charges, caps, and restrictions will be addressed individually for each organization/project/user combination.

### ***Overhead***

Current overhead for all fees accrued by all non-UW users is 6.85%. The overhead rate is determined by UW, not WCET, and is subject to change.

### ***Off-Campus Overhead Option for UW User Grants***

Grant proposals of UW investigators whose primary site of research is WCET may be eligible for the off-campus overhead rate (26%). WCET has established a procedure for supporting grant applicants seeking an off-campus rate based on their use of the facility. Our screening is based on the following evidence of substantial use.

All proposals must meet the following two criteria:

1. Centrality of WCET to proposal: The Facilities and Resources section for the proposal must clearly indicate that WCET facilities are central to the proposal.
2. Budget must include a “Facility Access Fee” to demonstrate to UW that the work is primarily being done at WCET and warrants the off-campus overhead rate. Users paying this fee are given access to a “hot desk” and use of all shared spaces (classroom, meeting rooms). Users can upgrade to reserved desks and offices (if available) at the standard price less the cost of a hot desk, which will have been covered by the initial fee. This fee will be charged as object code 03-80 and will show up in UW’s MyFD as “RENTALS-BLDGS & SPACE.” The PIs will be responsible for ensuring that this charge is allowed by their funding agency. WCET can provide reasonable support/justification for the charge. Access fees are REQUIRED for all new proposals seeking to use the off-campus overhead rate and access privileges will be assigned to specific individuals on that grant. Access fees cover single FTEs (faculty, staff, postdocs) and 0.5 FTEs (grad students). No other subdivisions are allowed. The access fee is \$440/month for 1.0 FTEs and \$220/month for 0.5 FTEs.

If your proposal meets the two criteria listed above, we will provide a letter supporting the request for an Off-Campus Rate.

Please contact Michael Pomfret at [mpomfret@uw.edu](mailto:mpomfret@uw.edu) for more details.

### ***Industry Memberships***

Memberships are offered to users qualifying for the Industry rate at a cost of \$2500 per month. Intended for long-term heavy users, memberships provide a fee schedule that reduces costs once the client has reached a certain amount of facilities usage. The membership fee provides the Industry user with \$200 toward desk or office space (if available), \$200 toward reserved lab bench space (if available), use of the classroom and meeting room at no charge, and **Tier 2** instrument usage fees.

Please contact Michael Pomfret at [mpomfret@uw.edu](mailto:mpomfret@uw.edu) for more details.

### ***Private Equipment Access***

Academic and industrial organizations may elect to operate and maintain private equipment at WCET. Due to the wide range of equipment complexity and value to the laboratory and the resulting impact on the staff, workflow, and facilities these arrangements will be negotiated on a case-by-case basis.

### ***Materials***

Supplies, chemicals, and materials are charged at cost. Overhead fees apply for all non-UW users.

### ***Shipping***

Remote users will be charged the shipping fees, a staff handling fee, and overhead for all shipped samples.

### ***Policy Clarifications:***

**Fees:** Requests for billing changes must be submitted to [wcet@uw.edu](mailto:wcet@uw.edu). Planned or equipment-related adjustments are complimentary. Adjustment requests due to repeated user negligence will be assessed an increasing change fee of  $\$50 * N$  where N is the number of previous requests that calendar year. Forgetting to log off prevents other users from utilizing tools, resulting in loss of revenue.

**Reservations:** Reservations are recommended for all equipment. Priority is given to users that have reserved equipment. “Drop-in” users are required to observe reservations made by other users.

**No Show:** Users that habitually do not show up for appointments will be charged instrument and staff time for the entire time blocked out for the appointment.

**Visitors:** Visitor requests must be made via the website. Visitors participating in lab work must be accompanied by a registered user, obey all WCET policies and procedures, and are assessed a \$50 fee per day.

**Cleans:** Tools that require mandatory cleans are the responsibility of the user and should be factored in when considering the cost of operations. Users that do not follow the prescribed cleaning protocol will be assessed full tool plus staff time for running cleans.

### **Fee Schedule:**

Effective July 1, 2023. All rates are subject to change.

Rate Category	Term	Tier 1 UW	Tier 2 Non-Profit & Industry Members	Tier 3 Standard Industry
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<b>Overhead Fee</b>	month	0%	6.85%	6.85%
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#### **Building Fees**

Equipment Space Rental	month	Consultation required for all equipment space rentals		
Reserved Lab Bench	month	\$850	\$850	\$850
Hot Seats	month	\$200	\$200	\$200
Dedicated Desk	month	\$325	\$325	\$325
Private Office	month	\$450	\$450	\$450
Meeting Room	hour	\$15	\$15	\$45
Classroom	hour	\$25	\$25	\$60
Both Rooms	hour	\$30	\$30	\$80

#### **Staff Fees**

Engineering	hour	\$150	\$150	\$150
Training	hour	\$75	\$75	\$150

#### **Systems Integration Fees**

OpalRT Control Room	hour	\$36	\$54	\$108
Keysight PV Emulator	hour	\$10	\$15	\$30
PLECS Power Electronics Simulator	hour	\$10	\$15	\$30
Power Hardware in the Loop	hour	\$10	\$15	\$30

#### **Controlled Environments**

Controlled Environment Room	hour	\$14	\$21	\$42
Glovebox 1 (N2)	hour	\$14	\$21	\$42
Glovebox 2 (N2)	hour	\$14	\$21	\$42
Glovebox 3 (Ar with Coin Cell Press)	hour	\$16	\$24	\$48

Rate Category	Term	UW	Non-Profit & Industry Members	Standard Industry
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#### Printers and Coaters

Formlabs 3D Printer	hour	\$10	\$15	\$30
Ultimaker 3D Printer	hour	\$10	\$15	\$30
nScript 3d Printer	hour	\$56	\$84	\$168
SIJ-050 Ink Jet Printer	hour	\$28	\$42	\$84
SIJ-150 Ink Jet Printer	hour	\$50	\$75	\$150
Dimatix Ink Jet Printer	hour	\$6	\$9	\$18
New Long Screen Printer	hour	\$14	\$21	\$42
Laurell Spin Coater	hour	\$8	\$12	\$24
FOM Mini Roll Coater	hour	\$26	\$39	\$78
FOM Sheet Coater	hour	\$26	\$39	\$78
Nanonex Nano Imprint Lithographer	hour	\$42	\$63	\$126
Erichsen Drawdown Coater	hour	\$12	\$18	\$36

#### WRF Roll-to-Roll Facility

FOM Roll-to-Roll Printer	hour	\$96	\$144	\$288
Xenon Flash Cure Lamp	hour	\$20	\$30	\$60

#### Materials Processing Equipment

Centrifuge	hour	\$12	\$18	\$36
Mars6 Microwave Reactor	hour	\$6	\$9	\$18
Standard Oven	hour	\$4	\$6	\$12
Thinky Mixer	hour	\$6	\$9	\$18
Blue M Oven	hour	\$10	\$15	\$30
Annealsys RTP	hour	\$26	\$39	\$78
UVO Cleaner	hour	\$20	\$30	\$60
Vacuum Oven	hour	\$6	\$9	\$18
Flow Reactor	hour	\$12	\$18	\$36
Ball Mill	hour	\$8	\$12	\$24
Jar Mill	hour	\$8	\$12	\$24
Probe Sonicator	hour	\$8	\$12	\$24
Box Furnace	hour	\$6	\$9	\$18

Rate Category	Term	UW	Non-Profit & Industry Members	Standard Industry
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#### Materials Analysis Equipment

Digital Microscope	hour	\$22	\$33	\$66
Kruss Drop Shape Analyzer	hour	\$22	\$33	\$66
Anton Paar Dynamic Light Scatterer	hour	\$36	\$54	\$108
DekTak Profilometer	hour	\$48	\$72	\$144
Olympus Optical Profilometer	hour	\$22	\$33	\$66
Anton Paar Rheometer	hour	\$54	\$81	\$162
Phenom ProX SEM	hour	\$44	\$66	\$132
Mettler-Toledo TGA/DSC	hour	\$38	\$57	\$114
Anton Paar BET	hour	\$2	\$3	\$6
Micromeritics BET	hour	\$2	\$3	\$6
ThermoNicolet FTIR	hour	\$32	\$48	\$96
Agilent UV-Visible Spectrometer	hour	\$30	\$45	\$90
Bruker X-Ray Diffractometer	hour	\$40	\$60	\$120
	week	\$2,000	\$3,000	\$6,000
Four-Point Probe	hour	\$10	\$15	\$30
Oxford AFM	hour	\$36	\$54	\$108

#### Battery Testing Equipment

Maccor Test Channels, set of 8 up to 5V, 5A	hour	\$1	\$2	\$2
	week	\$50	\$75	\$75
Arbin Cell Test Channel, 1 channel up to 5V, 60A	hour	\$1	\$2	\$2
	week	\$50	\$100	\$100
Arbin Module Test Channel, 1 channel, up to 60V, 50A	hour	\$3	\$6	\$6
	week	\$150	\$300	\$300
Arbin Coulombic Tester, set of 8 channels, up to 5V, 5A	hour	\$14	\$21	\$21
	week	\$700	\$1,050	\$1,050
Potentiostats	hour	\$8	\$12	\$12
	week	\$400	\$600	\$600

#### Photovoltaic Fabrication & Testing

Bent River Vacuum Laminator	hour	\$30	\$45	\$90
Spire Flash Tester	hour	\$32	\$48	\$96
OAI Solar Sim	hour	\$30	\$45	\$90
PV Measurements EQE/IQE	hour	\$30	\$45	\$90
Atlas UV Chamber	hour	\$1	\$2	\$3

#### Environmental Device Testing

Tenney Chamber	hour	\$12	\$18	\$36
	week	\$600	\$900	\$1,800
Russells Env. Chamber (per slot, 17 slots total)	hour	\$1	\$2	\$4
	week	\$50	\$100	\$200