



## Electrical Project Engineer – Urban Solar

### Overview:

Urban Solar is the leading manufacturer of standalone solar energy systems for the public transportation industry in North America. Urban Solar's vision is to become the leading integrator of off-grid digital amenities at bus stops that enhance public safety and promote the use of public transit. Reporting to the Engineering Manager and working with Urban Solar's cross-functional development team, the Electrical Project Engineer will play a key role in realizing this vision.

The Electrical Project Engineer is responsible for designing standalone solar energy systems that integrate into transit stops and shelters powering amenities such as real time signage and lighting. The successful candidate will work on a small team to integrate new components with standalone solar energy systems on existing transit structures and new custom shelter designs.

This position requires a self-motivated and organized individual who is enthusiastic, hands-on, and capable of leading project discussions from a technical position. Furthermore, the right individual will have a team-oriented mindset - willing to learn, teach others, and work with internal members across departments as well as Urban Solar's Project partners and customers.

This position is catered towards an electrical engineer who is looking to challenge themselves, is willing to fail, and is interested in growing with the role.

### High-Level Responsibilities:

- Lead the electrical design of customer-facing projects. The Electrical Project Engineer will work closely with a cross-functional development team and external contractors to help design and document custom integration projects for public infrastructure.
- Rapidly develop product/solution concepts and assemble prototypes as part of an iterative design process.
- Validate and test third party products, components, and software with Urban Solar's off grid solar solutions.
- Document technical concepts and create technical drawings such as wiring schematics, cable harness assembly and electrical assembly drawings using CAD software.
- Convey technical knowledge to customers and internal team members. The Electrical Project Engineer will be required to communicate and explain technical nuances to customers and internal team members of various backgrounds. Strong verbal and written communication skills will be required.
- Support the engineering manager in the growth of Urban Solar's engineering team through mentorship of co-op students and supporting general engineering process development.



### Requirements:

- Minimum of 3 years of experience in an electrical design or engineering role.
- Bachelor's degree in electrical engineering, mechatronics related field from a program accredited by a Washington Accord signatory or an equivalent internationally recognized accreditation body.
- Knowledge of low- and medium-voltage electrical systems.
- Proficient in electrical system design, and wiring schematics using Computer-Aided Design Software - AutoCAD is strongly preferred.
- Proficiency in load calculations, energy modeling, and system sizing.
- Hands-on experience with wiring and cable harness assembly.
- Ability to develop and execute testing and validation plans for integrated electrical systems.
- Strong verbal and written communication and interpersonal skills.
- Team-oriented mindset. The successful candidate will be a member of a small engineering team within a small organization and must demonstrate the ability to work closely and collaborate with others.
- Positive, enthusiastic, and motivated.
- Flexible and adaptable with regard to changing project timelines, team priorities, and complexity.
- Organized and professional with strong attention to detail.

### Additional Beneficial Skills and Qualities:

- Experience or working understanding of standalone solar energy systems and battery management systems and components such as MPPT and PWM charge controllers.
- Experience with the design of lighting systems including the specification of LED drivers
- Familiarity with communication protocols (e.g., Ethernet/IP, RS-485) for system integration.
- Experience with AC and DC power distribution, grounding, and electrical protection systems (e.g., CEC and NEC standards).
- Knowledge of safety and compliance standards and certification (e.g., UL, ETL, CE, FCC).
- Knowledge of IEEE technical standards
- Experience managing projects in a customer facing role. (PMP, or CAPM is an asset)
- Experience with hardware (PCB) and firmware development.
- Experience or familiarity with various Computer Aided Design software.
- Cross functional knowledge in hardware (PCB) design, firmware development, software development, mechanical design, fabrication, or assembly.
- A "hands-on" learner (a hobbyist who loves to spend time in their shop and works on projects at home)

### Location:

The Electrical Project Engineer will be based at Urban Solar's head office in Victoria, BC. Applicants must be legally eligible to work in Canada. A hybrid work structure may be offered; however, applicants must be able to attend in-office meetings a minimum of 3 days per week.

### Application:

Candidates must submit their resume and a max 200-word essay response on 3 ways transit stops can be improved using solar-powered amenities to [TallSky Consulting](#)

**Salary:**

Full-time (37.5 hours per week)

Starting at \$85,000/year

**Benefits:**

Urban Solar team members are entitled to extensive benefits including:

- Monthly team healthy lunches
- Public transit/active commuting reimbursement
- Sparkling water, high-quality coffee and teas
- Weekly fruit and vegetable trays
- Teambuilding events and celebrations
- Company library and weekly book club
- Mentorship and coaching
- Working with an awesome team that is passionate about Urban Solar's mission of helping transit agencies build better, safer bus stops.

Following a three-month probation period, Urban Solar team members are entitled to the following additional benefits:

- Comprehensive medical and dental benefits
- \$1,000 annual education credit
- \$500 annual health and fitness credit
- Minimum three weeks' vacation time from the start date of employment
- Urban Solar profit-sharing program
- Flex Fridays
- Hybrid working arrangements (up to 2 days/week based on management discretion)