



Maryland Green Registry MEMBER

The Maryland Green Registry promotes and recognizes sustainable practices at organizations of all types and sizes. Members agree to share at least five environmental practices and one measurable result while striving to continually improve their environmental performance.

POWER Engineers, Inc.



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Engineering consulting firm

Member since May 2013

Management and Leadership

Environmental Policy Statement

POWER Engineers understands that every project we undertake has an impact on the earth, its resources and society. We believe it is important to do our very best to help meet the world's present needs without compromising the ability of future generations to do the same.

This vision drives us to operate our business in a sustainable fashion, which includes implementing energy and materials conservation measures, maintaining a healthy workplace and developing relationships with the surrounding community.

However, it's how we approach each consulting opportunity that makes the biggest difference for future generations. Through our relationships with our clients, we can promote sustainable design and construction practices. We can educate and lead them to choices that meet their needs and objectives while limiting the environmental impact of their project.

That's what sustainability means to POWER. We live it through our people, our projects and our practices.

Environmental Team

POWER's Board President and CEO sits on our corporate sustainability committee for the sole purpose of oversight. The committee is responsible for developing policies and procedures to lessen the impact of POWER on the climate

and to help our clients lessen theirs. Under the direction of this committee, we've implemented sustainability design tools, encouraged employees to think about the environment during everyday office tasks, piloted an electric vehicle program to reduce our fuel usage.

Our executive board (management committee) is evaluating a proposal from our Executive Vice President of Power Delivery to expand climate-related efforts and set targets and goals for climate-related initiatives.

POWER's Board Chair is a member of the American Council of Engineering Companies' (ACEC) Energy and Environmental Subcommittee. Our CAO acts as a legislative liaison, lobbying for incentives for clean and renewable power and providing guidance to the Speaker of the House's staff regarding renewable energy.

Environmentally Preferable Products and Services

POWER Engineers is a full-service, employee-owned engineering and environmental consulting firm. Working within multiple industries, we specialize in project siting and permitting, air and water quality, waste management and cleanup issues, incident management, and workplace and community safety. POWER has taken great care to build a staff of professionals that satisfies the variety of challenges posed by both our clients' needs and by regulators.

Environmentally Preferable Purchasing

We buy office supplies that are made from recycled plastics, like B2P (Bottle to Pen) pens. And our paper products contain 40 percent advanced environmental standards or features.

Waste

Solid Waste Reduction and Reuse

Being an environmental consulting firm, our principal products are reports and studies. Our printer is set to automatically print two-sided copies. Additionally, it has capabilities for electronically transmitting reports without any hard paper copies being produced. Project files at POWER are electronic with no paper storage unless dictated by client needs.

Recycling

We recycle paper, plastic, cans and glass. We also recycle hazardous waste, like electronics, batteries and used fluorescent bulbs.

Energy

Energy Efficiency

POWER has installed energy saving sensors in each of the offices and workrooms in the Maryland office. It has been projected that the use of such sensors in such a work environment will reduce lighting energy consumption by 50%.

Renewable Energy

To reduce our reliance on fossil fuels, we've installed a 10kW renewable energy solar PV system to help power our Hailey, Idaho corporate campus. Another solar PV system was installed by our Cincinnati, Ohio office. We have also replaced desktop computers with energy-efficient laptops companywide. This yields an average energy savings of 40 to 60%. Additionally, we have installed energy-efficient LED and CFL lighting across 100% of our Hailey campus. The leftover fluorescent bulbs were then reused at our Boise office. Light switches are also labeled with reminder to turn them off when not in use.

Transportation

Employee Commute/Customer Travel

POWER has computer software systems in-place to allow employees to work offsite and avoid commuting on a daily basis into the office. The amount of commuting that is deferred depends on the employee and the nature of ongoing work assignments.

Efficient Business Travel

*The POWER IT department recently completed Polycom HDX telepresence system that allows the Maryland and Austin offices to meet remotely. It is estimated conservatively that it will eliminate at least 20 roundtrips annually between BWI Airport and Austin/Bergstrom airports. Using the below approach, it was calculated that the introduction of the technology will reduce carbon dioxide (CO₂) emissions by 407 kg per roundtrip flight or **8.14 metric tons** annually (assuming the 20 roundtrips). This does not take into account additional travel between POWER's other 40+ office locations.*

The International Civil Aviation Organization (ICAO) has developed a methodology to calculate the carbon dioxide emissions from air travel for use in offset programs. The ICAO Carbon Emissions Calculator allows passengers to estimate the emissions attributed to their air travel. It is simple to use and requires only a limited amount of information from the user.

The ICAO Carbon Emission Calculator requires that the user input the airports of origin and destination for a direct through flight (i.e., a flight which does not have a change of the flight number). This is then compared with the published scheduled flights to obtain the aircraft types used to serve the two airports concerned and the number of departures per aircraft. Each aircraft is then mapped into one of the fifty equivalent aircraft types in order to calculate the fuel consumption for the trip based on the great circle distance between the airports involved in the journey. The passenger load factors, and passenger to cargo ratios, obtained from traffic and operational data collected by ICAO, are then applied to obtain the proportion of total fuel used which can be attributed to the passengers carried.

The system then calculates the average fuel consumption for the journey weighted by the frequency of departure of each equivalent aircraft type. This is then divided by the total number of economy class equivalent passengers, giving an average fuel burn per economy class passenger. The result is then multiplied by 3.157 in order to obtain the amount of CO2 footprint attributed to each passenger travelling between the two airports.

Efficient Fleet Vehicles

POWER utilizes all-electric vehicles to replace individual's commuter cars used when commuting between our Hailey and Boise, Idaho offices.

Green Building

LEED

While POWER does not own or lease space in buildings that have been certified by these programs, our Facilities team regularly leads LEED Design-Build Projects for our clients. We have recently been involved in the following projects:

- **Silver Rating** U.S. Navy P-251A P-8A Hangar & Training Facility—Oak Harbor, WA
- **Silver Rating** U.S. Navy P-251B Hangar 6 Expansion and Modernization—Oak Harbor, WA
- **Silver Rating** U.S. Navy P-239 Hangar and Training Facility—Oak Harbor, WA
- **Silver Rating** Refueling Vehicle Maintenance Facility—Fairchild Air Force Base, Spokane, WA
- **Silver Rating** Chemical Battalion HQ, Joint Base Lewis—McChord, WA
- **Gold Rating** Special Operations Aviation Regiment Dining Facility, Joint Base Lewis—McChord, WA

Environmental Certification Programs, Awards, and Other Activities



- *Engineering News-Record New England 2017 Best Energy/Industrial Project: Sea2shore: The Renewable Link*
- *ACEC 49th annual Engineering Excellence Awards National Recognition Award: CapX2020 Transmission Line Project*
- *POWER Engineers acquired Zephyr Environmental Corporation, a Maryland Green Registry member, in 2018 and has continued the firm's participation in the program.*

Profile Updated July 2020



Help build a greener, more sustainable Maryland through voluntary practices that reduce environmental impacts and save money.

Learn more at green.maryland.gov

