

SOLAR CONSULTING AND ENGINEERING

We Know Solar



FIRM OVERVIEW

Our goal is simple: To help ensure that our clients' photovoltaic installations are successful through design, approvals, construction and operation while easing their burden on the engineering needs and process.

We do this by acting as an extension of the team, effectively managing these concerns with Principal involvement from start to finish. Be it providing a full service engineering team and completing all required tasks from feasibility and concept design through to construction closeout and system operation; or acting as an independent technical and industry rep. We are your valued partner for delivering exceptional results.

With a network of skilled engineers and experience across the US, plus a different company approach, we are nimble and creative and can scale resources to meet any client's needs.

WE WILL BUILD YOUR TEAM TO PROVIDE AS NEEDED:
PV DESIGN, CONSULTING, REPRESENTATION
ELECTRICAL ENGINEERING
STRUCTURAL ENGINEERING
CIVIL ENGINEERING & ENVIRONMENTAL
FINANCIAL CONSULTING

SERVICES

Feasibility Studies

Conceptual Design

Construction Documents

Construction Administration

Project Management

Owner Representation

Permitting, Applications & Approvals

Due Diligence

Third Pary Review / IE

Technical Advising

Energy Production Reports

Energy Usage Analyses

Value Engineering

Financial Sourcing

PPA Reviews

MANAGING
ENGINEERING
& DESIGN SO
YOU DON'T
HAVE TO





WE KNOW SOLAR

Distributed Generation & Utility Projects

Rooftop, ground mount, carport and post-up type installations

Facility types: industrial, educational, institutional, corporate, retail, municipal, multi-family residential, utility

FIRM PROFILE

Client types: EPC's, capital energy companies, solar developers, solar integrators, natural resource companies, end users, public entities, Architects and Engineers

Due Diligence / Independent Engineering services: to allow Clients to evaluate and finalize transactions with confidence

Involved with industry leading vendors (inverters, modules, racking and BOS)

Extensive knowledge of wind calculations, structural analyses and factors for mounting systems

Stay current with federal & state programs, utilities, trends, codes, costs

Solar & storage systems

HIGHLIGHTS See project sheets for details

Performed varied services for over 200MW of PV across 100+ sites in NJ, NY, CT, MA, MD, CO, FL, IL, RI, and the Carribeans.

Distributed Generation, as small as 20kW and as large as 4MW

Utility projects, up to 15MW DC including medium voltage and landfill

Numerous interconnection design submissions and applications for community solar, grid supply and net metered projects

Full service Engineering (PV Design, Electrical, Structural, Civil, Permitting, Applications) for county wide renewable energy program

Owner/Client representation/PM in the feasibility stage through construction

Due Diligence site reviews / Independent Engineering for over 60MW

PV Engineering for 8 school districts & 43 schools in NY







FIRM PROFILE

How is Schwerd Consulting Different from others?

We <u>Know</u> Solar. We are <u>Dedicated</u> to the Solar industry (while also having an extensive and varied experience in facilities and energy). Our clients will always have the <u>Principal</u> leading their project and being the single point of contact; responsive and available.

There are many Engineering and Consulting firms that <u>Do</u> Solar. With a primary focus in the building industry, as an extension of pursuits they will also provide services for Solar PV projects as they do for other market sectors and buildings. But do they truly know solar? With our focus solely on solar, we add value to our clients by understanding their business. We track the industry trends, latest equipment developments, state and federal programs, financial considerations, state and utility variations, code updates, etc. We also create new solutions to achieve improved results.

Present in the industry too is a smaller pool of Engineering and Consulting firms dedicated to the solar industry. Yet they may lack the background in the engineering of buildings and various power and energy systems. With an extensive experience in successful design and engineering of many building types (retail, workplace, industrial, institutional, municipal, hospitality) we add value here as well by understanding deeply not only the many electrical systems that the PV can be interconnected with but also the operational needs of these facilities and the end users.

Additionally, we are not a large firm with a multi-level organizational chart, with various project managers assigned as growing workloads demand, or with various points of contact for each discipline or service offered. Rather, our single point of contact is Principal level, well versed in all disciplines and the Solar industry, while having an Electrical Engineering background, which is paramount to the success of any PV system. This approach also allows for the handling of many projects and clients, as the Engineers of Record and the production teams are able to better concentrate on their tasks at hand. We are also more selective and focused, without primary corporate goals for ever increasing total revenues. (Yes we have lived that in prior lives!)

Lastly, after years of experience in the evolution of the solar industry, our team has taken these lessons learned and created exceptional PV design and electrical construction document templates. These drawing sets are reader friendly, detailed yet concise in limiting the number of drawings, and automated to allow for short turn around times to completion. Our Clients, and Contractors also appreciate the consistency in sets that makes their jobs easier.





LEADERSHIP

BUILDING RELATIONSHIPS TO FACILITATE BUILDING SOLAR

STEVEN G. SCHWERD

With over 25 years in Consulting Engineering, Mr. Schwerd has proven accomplishments in engineering design; project, client, staff and financial management; business development; engineering operations; and firm leadership. Experience ranges from creating small MEP (Mechanical, Electrical & Plumbing) departments to a Principal/Shareholder role as the engineering leader for a large multi-office, international full service Architectural & Engineering firm.

With energy and sustainable design a key focus for years, Steve then became involved in renewable energy and design in 2008 as Solar PV became an increasingly viable option. He developed and led a full service engineering team that emerged as a nationally recognized engineering leader for solar, having completed over 350 projects and 300MW across 25 states prior to his departure. Upon establishing Schwerd Consulting, Steve can now follow his passion for renewable energy and be fully committed to and active in the Solar industry. He has worked with many of the leading solar companies and vendors across the country and is the driving force on all firm projects and industry endeavors.

Steve's strengths are noted as being able to effectively communicate technical issues to non-technical people, and being easy and enjoyable to do business with, while being agressive in the pursuit of delivering solutions and results.

"THE MISSION OF SCHWERD CONSULTING IS TO ENSURE THAT OUR CLIENTS' PHOTOVOLTAIC AND BUILDING INSTALLATIONS ARE SUCCESSFUL WHILE EASING THEIR BURDEN ON THE ENGINEERING NEEDS AND PROCESS. IN THIS ENDEAVOR, WE SEEK TO ACHIEVE PROFITABITY FOR ALL INVOLVED PARTIES WHILE CREATING STRONG, ENDURING RELATIONSHIPS. IN THE END, WE WILL LEAVE BEHIND A LEGACY OF POSITIVE ENVIRONMENTAL IMPACT THROUGH SUSTAINABLE DESIGN AND GREEN ENERGY PRACTICES."

-STEVEN G. SCHWERD

OWNER

