



Independent Energy Solutions, Inc.

Statement of Qualifications

September 2008



Introduction

Independent Energy Solutions, Inc. (IES) is a full-service, renewable energy development, engineering and construction firm with over 40 years of combined senior-level experience in solar electric generation (photovoltaics or PV), conventional electric generation, and support infrastructure. IES projects span the globe and come in every size from small commercial to utility-scale applications. Founded in 1998, IES is woman-owned and incorporated in the state of California. The company holds a current class B general contractors license (#805159) with a bonding capacity of \$6,000,000.

Products & Services

IES' primary focus is designing and building **turnkey**, commercial-scale generation systems incorporating renewable technologies. Whether it's a complete PV system, complex hybrid generation plant or a simple retrofit, IES delivers affordable, reliable, competitively priced solutions that are on-time and on-budget.

- On-grid, off-grid and remote solutions
- Polycrystalline and thin-film photovoltaic systems
- Conventional generation (diesel, natural gas, biofuel, etc.) and hybrid systems
- Inverters, switches and power conditioners
- Infrastructure (facilities, buildings, carports, roofing)
- Lighting
- Battery backup and storage
- Data acquisition
- Telecommunications

The company also offers a broad range of related services including:

- Engineering & design
- Project management
- Design review
- Equipment supply
- Permitting, documentation and filings (including rebate applications)
- System testing and loading
- Technology evaluation
- System maintenance
- Retrofitting
- Decommissioning
- Disaster relief

Our scale of operations, strong alliances with equipment manufacturers and experience means our customers receive integrated solutions that are properly tailored to their energy needs. IES explicitly uses high quality equipment and standardized installation techniques that ensure constructability, reliability, performance, safety, longevity and serviceability.

Scope

IES has successfully designed and fielded hundreds of systems nationally and worldwide ranging from remote village power systems in the Marshall Islands to utility-scale systems for commercial customers such as Pfizer, QUALCOMM, SDG&E and Southern California Edison. IES is also a leading solutions



provider for public agencies (federal, state & local) and the US military with numerous projects completed and in-process for the Navy, Air Force and Marines. We deliver reliable, cost-effective systems that are code compliant.

Experience

All IES personnel are highly trained and committed to our high standards of excellence for quality, safety, reliability, technical knowledge, sound engineering practices, attention to detail and above all, customer satisfaction. The principals of IES have served on numerous standards and codes making committees for both the Institute of Electrical and Electronics Engineers (IEEE) and the National Electric Code (NEC Article 690) and several are published authors.

IES has learned through years of experience, authoring and reading detailed performance reports and field studies, and via first hand observations and inspections of many genres of installed solar arrays, that there are specific design practices that ensure optimum system performance and mitigate system downtime and degradation. We put that experience to work in every one of our system designs, installations, upgrades and retrofits to ensure complete customer satisfaction.

Principal Contacts

Linda Strand

President / CEO

lstrand@indenergysolutions.com

Ms. Strand is the co-founder of IES and is responsible for business development, administration and finance. She has over 25 years experience in business development and environmental and natural resources management including organizations such as General Dynamics and the California State Department of Parks and Recreation. Strand is highly involved in numerous environmental and business organizations and has co-chaired many women's business leadership programs. Since starting IES in 1998, she has led the company through 10 years of sustained consecutive growth. Strand holds a BS in natural resource management from California State University, Sacramento with post-graduate work at California State University, Fullerton.

Troy Strand

Executive Vice President

tstrand@indenergysolutions.com

Mr. Strand is the co-founder of IES and is responsible for operations, sales and business development. He has over 17 years experience in system design, engineering, project management, field service, sales and the installation of photovoltaic power systems. He has personally overseen the design and installation of more than 200 photovoltaic power systems in the U.S., Mexico, Federated States of Micronesia, and Canada. Troy is a respected authority on solar energy and has published numerous technical and white papers; conducted pioneering research at the National Renewable Energy Laboratories (NREL); and has served on several standards and codes making committees for the Institute of Electrical and Electronics Engineers (IEEE) and the National Electric Code (NEC Article 690). He holds a bachelor of science in electrical engineering from California State University, Fullerton.



Donovan Jones
Director of Construction
djones@indenergysolutions.com

Mr. Jones is a licensed electrical contractor in California and Arizona with certifications in photovoltaics (PV), on-site power generation and data/telecommunications. In 2001, he founded his own company, E² Electrical Contractors and began working with IES in 2003. In 2008, E² merged into IES and Jones was named Director of Construction for the combined organizations. He has installed more than 100 PV systems worldwide.

Fred Lipscomb
Director of Engineering
flipscomb@indenergysolutions.com

Mr. Lipscomb designs photovoltaic systems, electrical interconnections and related facilities and supervises IES' internal and contract engineering and design staff. He has over 35 years experience in solar, lighting, power facilities, data acquisition, multimedia, telecommunications and security systems. Prior to joining IES, Fred was project manager for ILA / Zammit Engineering where he designed electrical and photovoltaic systems including the Kyocera "Solar Grove" and four major PV systems for QUALCOMM. He is an instructor for the San Diego Electrical Training Center; has received numerous industry awards for his efforts in lighting and solar design; and twice served as president of the Illuminating Engineering Society of North America (San Diego Section).

Brent Stafford
Manager of Engineering
bstafford@indenergysolutions.com

Mr. Stafford joined IES in 2004 and has served as a field technician, field engineer, project engineer and now as its manager of engineering. He is responsible for project development and design along with data monitoring and product procurement. Brent holds a bachelor of science in industrial engineering from Colorado State University.

David Ryburn
Project Manager
dryburn@indenergysolutions.com

Mr. Ryburn has over 25 years experience in construction, engineering, project management, and QC including management and completion of numerous projects in the industrial, commercial and residential sectors. David attended the University of Arizona and is currently in the business program at the University of California, San Marcos. He has held general contractors licenses in California and Arizona and is ISO 9002 certified, Cal OSHA trained, and an IEEE member.

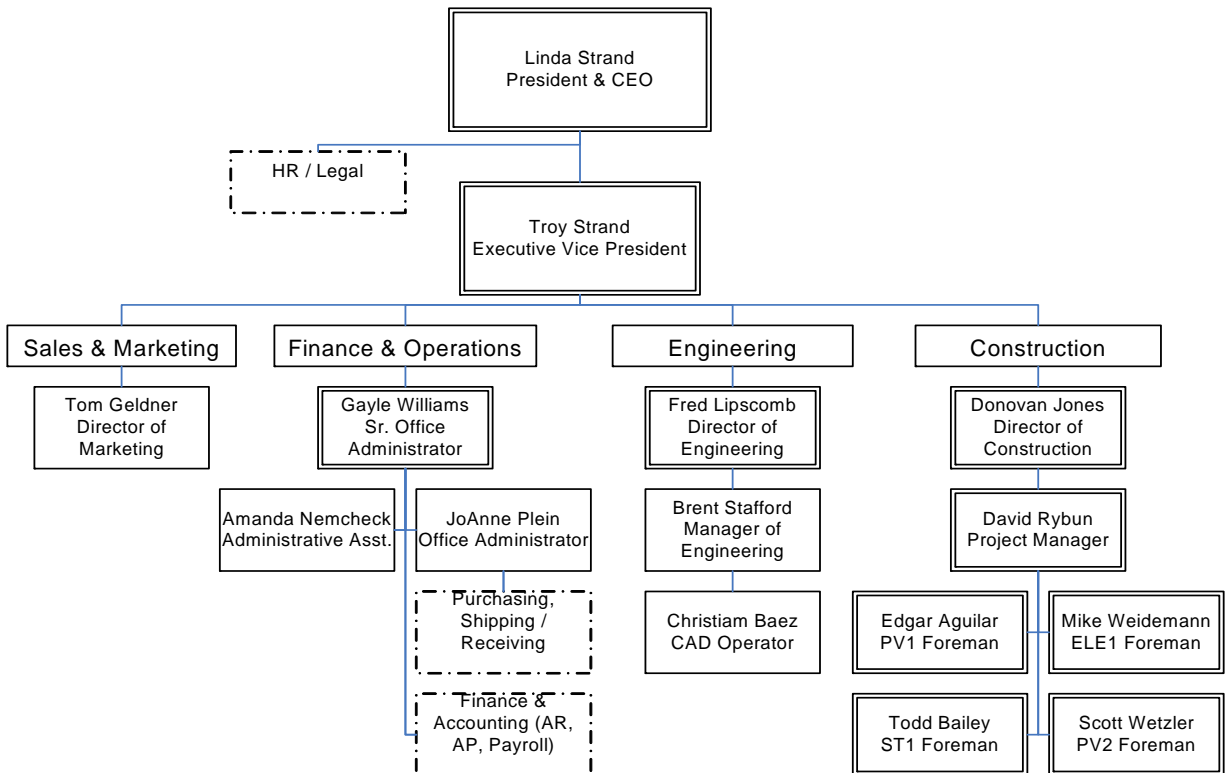
Tom Geldner
Director of Marketing
tgeldner@indenergysolutions.com

Mr. Geldner is responsible for IES' marketing and external communications. He has over 25 years experience in marketing and sales management including senior executive positions with two public technology companies and two national sporting goods firms. Prior to joining IES, Geldner was director of marketing for the nonprofit Center for Sustainable Energy in California where he was instrumental in



developing the markets for solar energy, self-generation, energy efficiency and demand response as well as obtaining over \$60 million in new funding for the organization through various public and private grants. Geldner also founded and operated two successful small businesses including an award-winning software development company. He holds a bachelor's degree in communications from California State University, Fullerton.

Organization Chart





Projects

IES has designed and installed over 3 MW in photovoltaic systems. Below is a select list of completed projects with references.

Project Capacity:	343kW (4 Solar Carports)
Customer:	NAVFAC Southwest
Install Address:	San Diego, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, Solar Carport

Project Capacity:	80kW
Customer:	ITSI (LA Air Force Base)
Install Address:	LA Air Force Base, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	134kW
Customer:	Harper Construction
Install Address:	La South West College
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	87kW (Bldg 2251)
Customer:	Marine Corp Base Camp Pendleton
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	34kW (Bldg 22113)
Customer:	Marine Corp Base Camp Pendleton
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	96kW
Customer:	SDSG&E "Bressi Ranch"
Install Address:	Carlsbad, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	122kW
Customer:	SDSG&E "Hunter Industries"
Install Address:	San Marcos, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount



Project Capacity:	102kW
Customer:	Hunter Industries
Install Address:	San Marcos, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	285kW
Customer:	Pfizer
Install Address:	San Diego, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	120kW
Customer:	SDSG&E "Rueben H. Fleet"
Install Address:	San Diego, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	60kW
Customer:	SDSG&E "Ladera Ranch"
Install Address:	Ladera Ranch, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	98kW
Customer:	Naval Base Ventura County
Install Address:	Ventura, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Triple Junction a-Si, roof mount

Project Capacity:	30kWac
Customer:	Naval Air Station El Centro
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, solar carport

Project Capacity:	30kWac
Customer:	Naval Base Point Loma
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	18.2kWdc
Customer:	National Park Service
Install Address:	Cabrillo National Monument, San Diego, CA
Service:	Engineering / Design, Equipment Supply, Installation
PV Technology:	Crystalline, roof mount



Project Capacity:	30kWac
Customer:	SDSU
Install Address:	San Diego State University Parking #1
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, Solar Carport

Project Capacity:	30kWac (BEQ)
Customer:	Marine Corp Base Camp Pendleton
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	67.5kWac (four warehouses 22 Area)
Customer:	Marine Corp Base Camp Pendleton
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	240kWac
Customer:	US NAVY
Install Address:	Santa Cruz Island, CA
Service:	Design/ Supply/ Build
PV Technology:	PV diesel hybrid

Project Capacity:	108kW
Customer:	Qualcomm
Install Address:	San Diego, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	46kWac
Customer:	Marine Corp Base Camp Pendleton
Install Address:	Camp Pendleton, CA
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	250kWdc
Customer:	Sharpe Solar (Town & Country Market)
Install Address:	Reedley, California
Service:	Design/Construction Oversight / Supply
PV Technology:	Crystalline, roof mount

Project Capacity:	120kWdc
Customer:	Sun Edison (Whole Foods Market)
Install Address:	Edgewater, New Jersey
Service:	Construction Oversight / Supply
PV Technology:	Crystalline, roof mount



Project Capacity:	32kWac
Customer:	Berg Electric (Chula Vista PD)
Install Address:	Chula Vista
Service:	Engineering / Design / Supply / Build
PV Technology:	Crystalline, roof mount

Project Capacity:	20.5kWdc
Customer:	Texaco Technology Ventures
Install Address:	Puerto Prada, Guatemala City, Guatemala
Service:	Engineering / Design, Installation, Project Management
PV Technology:	Triple Junction Amorphous Silicon, roof mount, building integrated

Project Capacity:	19.2kWdc
Customer:	Texaco Technology Ventures
Install Address:	Texaco Station 24440 Lyons Ave., Santa Clarita, CA
Service:	Engineering / Design, Installation, Project Management
PV Technology:	Triple Junction Amorphous Silicon, roof mount, building integrated

Project Photos

The following photos from recent projects illustrate the care and attention to design and installation details that IES puts behind every project regardless of size.



240kWac PV System, Pfizer, San Diego, CA



Commercial Install, Santa Clarita, CA



100kWac Commercial Install In Progress, Reuben H. Fleet, San Diego, CA



137kW Solar Carport – US Navy



100 kW Naval Base Ventura County



46 kWac Roof Mount – Camp Pendleton



240 kWac PV/Diesel Hybrid – US Navy Site Santa Cruz Island