

Application Submittal Checklist

The following items are required for submittal of the grant application. Please verify and check off that the items have been included in the application packet.

- 1) Certificate of Good Standing (If the Applicant is an Organization)
- 2) Declaration Statement
- 3) Verify that grant shall be used for a public purpose
- 4) Background and Summary
- 5) Service Summary and Outcomes
- 6) Budget
 - a) Budget request by source of funds
 - b) Personnel salaries and wages
 - c) Equipment and motor vehicles
 - d) Capital project details
 - e) Government contracts, grants, and grants in aid
- 7) Experience and Capability
- 8) Personnel: Project Organization and Staffing



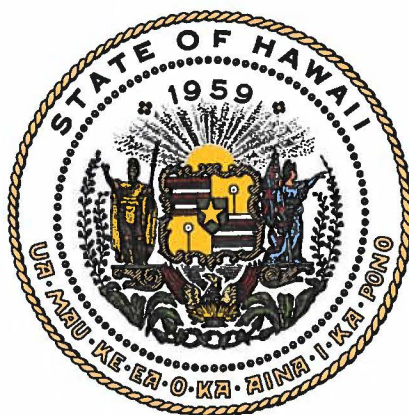
FREDERICK REDELL, EXECUTIVE DIRECTOR

JANUARY 18, 2019

AUTHORIZED SIGNATURE

PRINT NAME AND TITLE

DATE



Department of Commerce and Consumer Affairs

CERTIFICATE OF GOOD STANDING

I, the undersigned Director of Commerce and Consumer Affairs of the State of Hawaii, do hereby certify that

HAWAII CLEAN POWER ALLIANCE

was incorporated under the laws of Hawaii on 04/09/2018 ; that it is an existing nonprofit corporation; and that, as far as the records of this Department reveal, has complied with all of the provisions of the Hawaii Nonprofit Corporations Act, regulating domestic nonprofit corporations.



IN WITNESS WHEREOF, I have hereunto set my hand and affixed the seal of the Department of Commerce and Consumer Affairs, at Honolulu, Hawaii.

Dated: January 14, 2019

Director of Commerce and Consumer Affairs

**DECLARATION STATEMENT OF
APPLICANTS FOR GRANTS PURSUANT TO
CHAPTER 42F, HAWAII REVISIED STATUTES**

The undersigned authorized representative of the applicant certifies the following:

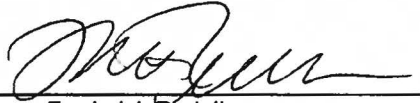
- 1) The applicant meets and will comply with all of the following standards for the award of grants pursuant to Section 42F-103, Hawaii Revised Statutes:
 - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant is awarded;
 - b) Complies with all applicable federal and state laws prohibiting discrimination against any person on the basis of race, color, national origin, religion, creed, sex, age, sexual orientation, or disability;
 - c) Agrees not to use state funds for entertainment or lobbying activities; and
 - d) Allows the state agency to which funds for the grant were appropriated for expenditure, legislative committees and their staff, and the auditor full access to their records, reports, files, and other related documents and information for purposes of monitoring, measuring the effectiveness, and ensuring the proper expenditure of the grant.
- 2) If the applicant is an organization, the applicant meets the following requirements pursuant to Section 42F-103, Hawaii Revised Statutes:
 - a) Is incorporated under the laws of the State; and
 - b) Has bylaws or policies that describe the manner in which the activities or services for which a grant is awarded shall be conducted or provided.
- 3) If the applicant is a non-profit organization, it meets the following requirements pursuant to Section 42F-103, Hawaii Revised Statutes:
 - a) Is determined and designated to be a non-profit organization by the Internal Revenue Service; and**
 - b) Has a governing board whose members have no material conflict of interest and serve without compensation.

** Note that applicant's application for nonprofit status is currently pending before the Internal Revenue Service. Applicant anticipates obtaining its determination and designation prior to the award of any grant and at that time applicant will update this Declaration.

Pursuant to Section 42F-103, Hawaii Revised Statutes, for grants used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant was awarded and disposes of the land in fee simple or by lease, the organization shall negotiate with the expending agency for a lump sum or installment repayment to the State of the amount of the grant used for the acquisition of the land.

Further, the undersigned authorized representative certifies that this statement is true and correct to the best of the applicant's knowledge.

HAWAII CLEAN POWER ALLIANCE,
a Hawaii nonprofit corporation

By 

Name: Frederick Redell
Title: Executive Director

Dated: January 18, 2019

Application for Grants

If any item is not applicable to the request, the applicant should enter "not applicable".

I. Certification – Please attach immediately after cover page

1. Certificate of Good Standing (If the Applicant is an Organization)

If the applicant is an organization, the applicant shall submit one (1) copy of a certificate of good standing from the Director of Commerce and Consumer Affairs that is dated no earlier than December 1, 2018.

See Certificate of Good Standing dated January 14, 2019 attached.

Electronic Authentication at: <http://hbe.ehawaii.gov/documents/authenticate.html>

Authentication Code: 321964-COGS_PDF-290753D2

2. Declaration Statement

The applicant shall submit a declaration statement affirming its compliance with Section 42F-103, Hawaii Revised Statutes.

See Declaration attached.

3. Public Purpose

The applicant shall specify whether the grant will be used for a public purpose pursuant to Section 42F-102, Hawaii Revised Statutes.

The Hawaii Clean Power Alliance specifies that this grant will be used for a public purpose pursuant to Section 42F-102, Hawaii Revised Statutes.

II. Background and Summary

This section shall clearly and concisely summarize and highlight the contents of the request in such a way as to provide the State Legislature with a broad understanding of the request. Please include the following:

1. A brief description of the applicant's background.

The Hawaii Clean Power Alliance ("HCPA") is a nonprofit association organized to advance the development and sustainability of clean energy in Hawaii. HCPA is a nonprofit corporation organized in 2018 under Hawaii Revised Statutes Chapter 414D (Hawaii Nonprofit Corporations Act) and it has applied to the Internal Revenue Service for a nonprofit designation under Section 501(c)(6) of the Internal Revenue Code.

HCPA's mission is to educate the public about the benefits of clean energy, advocate for strong clean energy policy, and advocate for the advancement of utility scale, grid connected clean energy projects. HCPA's goal is to support the State of Hawaii's policy goal of 100% renewable portfolio standard by 2045, local sustainability, reduced greenhouse gas, and carbon neutrality. Important to Hawaii's policy decisions is the balance of clean energy with the effect of reliability and affordability to ratepayers. This can be accomplished through education, briefings, outreach, technical seminars, information, guidance, and support to the state, community, and its members. A diverse mix of clean energy in the state will help in the resiliency of energy security. A better alignment of policy and regulatory decisions is needed to support more clean energy development at the utility scale. By providing clean energy generation at this scale, it benefits all ratepayers, including the ones that need it most, such as renters, low-to-moderate income residents, seniors, and others on fixed incomes.

HCPA's members include developers, owners, and operators of utility scale clean energy projects and various affiliated industry members which support the development of the projects. HCPA's members sustainably generate energy from a wide range of clean energy projects, including solar, wind, biomass, and hydro.

HCPA is governed by a board of directors, whose members have extensive background and experience in clean energy, public policy, engineering, and law. HCPA's executive director is Frederick Redell. Mr. Redell most recently served as the Energy Commissioner for the County of Maui, a position appointed by the Maui Mayor. Prior to his position as Energy Commissioner, Mr. Redell served in various executive level positions in the renewable energy industry. (A copy of Mr. Redell's resume is attached.)

In 2018, the Hawaii Public Utilities Commission ("PUC") admitted HCPA in an important PUC Docket and permitted HCPA to review and provide comments and recommendations, with a substantial number of those recommendations adopted.

HCPA's members have additionally worked to educate the business, government, and broader energy communities about the benefits of clean energy, the challenges to delivering more clean energy, and potential solutions to those challenges.

HCPA anticipates continuing its efforts to educate, outreach, support, promote, and advocate for good policy and regulation relating to clean energy generation and transmission.

2. The goals and objectives related to the request.

HCPA has the goal, during the 2019 calendar year, of expanding its outreach to the public and continuing to educate the business, government, and broader energy communities about the benefits of clean energy, the challenges to delivering more clean energy, and potential solutions to those challenges. In particular, HCPA anticipates that the PUC and/or electric utility companies in Hawaii will open several dockets with the PUC that will have significant impacts upon the public and ratepayers in Hawaii. HCPA feels it is essential that it participate in those dockets to advance its goals. Additionally, the growing activity within the energy industry in Hawaii will require more active monitoring and participation in regulatory and permitting proceedings to advance the interests of clean energy which will, in turn, benefit the public and ratepayers.

3. The public purpose and need to be served.

Hawaii imports the majority of its energy resources and is dependent on the market prices as they fluctuate. In addition, Hawaii suffers from older electricity grids that are not interconnected to each other, nor to any other state electricity grids. This combination creates risk of reliability and energy security that must be addressed while Hawaii transforms itself to a 100% renewable future.

Currently, the true challenges to delivering 100% clean energy and potential solutions to those challenges are rarely fully discussed. The challenges of delivering clean energy at affordable rates to ratepayers are similarly rarely discussed to include relevant business, governmental, energy, or public stakeholders. HCPA desires to address this public purpose and need, to facilitate solutions through development of processes, and regulatory policy initiatives that will educate, promote, and provide for these solutions. In addition, added public benefits will include an economic benefit in creating local sources of sustainable, renewable energy production, keeping the moneys spent on oil imports in Hawaii, and state income tax and GET revenue generation. Education and training of Hawaii's youth and job force in technical, living wage jobs are also an added long-term public benefit for Hawaii.

4. Describe the target population to be served.

HCPA's target population to be served is the population of the State of Hawaii, as everyone in the State of Hawaii is benefited by clean, affordable energy and sound policy relating to the development and deployment of clean energy projects.

5. Describe the geographic coverage.

HCPA serves the entire State of Hawaii, as clean energy projects are being

proposed and developed on all major islands of the State of Hawaii.

III. Service Summary and Outcomes

The Service Summary shall include a detailed discussion of the applicant's approach to the request. The applicant shall clearly and concisely specify the results, outcomes, and measures of effectiveness from this request. The applicant shall:

1. Describe the scope of work, tasks, and responsibilities.

The scope of work for HCPA will involve the following:

- (a) Providing education to the community relating to clean energy;
- (b) Providing education on technical, policy, and legal matters to government, business, and other clean energy stakeholders relating to the benefits of clean energy, the challenges to deliver more clean energy, and potential solutions to those challenges;
- (c) Providing regular updates to the clean energy community and members relating to changes to clean energy policy, regulatory, entitlement, and other matters relating to the development and deployment of clean energy projects;
- (d) Provide technical, subject matter experts in the area of utility scale clean power to the state, policymakers, regulators, media, and members.

2. Provide a projected annual timeline for accomplishing the results or outcomes of the service.

HCPA will accomplish the foregoing tasks and work by December 31, 2019.

3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results.

HCPA will routinely seek feedback from its members, as well as seek feedback from regulators, electric utilities, and governmental agencies with respect to its effectiveness. Specifically, HCPA will individually meet with key representatives of such stakeholder groups for specific and critical feedback. HCPA will evaluate such feedback and, as necessary, make appropriate adjustments to its program.

The board and members will meet to further define agreed upon parameters, deliverables, and results within budget constraints and will regularly assess progress and improvements.

4. **List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency). The measure(s) will provide a standard and objective way for the State to assess the program's achievement or accomplishment. Please note that if the level of appropriation differs from the amount included in this application that the measure(s) of effectiveness will need to be updated and transmitted to the expending agency.**

HCPA will meet with the appropriate State agency to define agreed upon parameters and intended results to further refine accountable deliverables. HCPA will report on its program's achievements and will provide appropriate written reports and supporting materials as requested by such State agency.

IV. Financial

Budget

1. **The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request.**
 - a. Budget request by source of funds
 - b. Personnel salaries and wages
 - c. Equipment and motor vehicles
 - d. Capital project details
 - e. Government contracts, grants, and grants in aid

2. **The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2020.**

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
\$200,000				

3. **The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2020.**

HCPA will rely primarily upon funding from its members in the form of membership dues, seminars, and other membership contributions.

4. **The applicant shall provide a listing of all state and federal tax credits it**

has been granted within the prior three years. Additionally, the applicant shall provide a listing of all state and federal tax credits they have applied for or anticipate applying for pertaining to any capital project, if applicable.

Not Applicable. HCPA has not applied for any state or federal tax credits. Additionally, HCPA does not anticipate applying for any state or federal tax credits in fiscal year 2020.

- 5. The applicant shall provide a listing of all federal, state, and county government contracts, grants, and grants in aid it has been granted within the prior three years and will be receiving for fiscal year 2020 for program funding.**

Not Applicable. HCPA has not applied for, and consequently has not received any, federal, state or county government contracts, grants or grants in aid in the prior three years, and it will not be receiving any such aid in fiscal year 2020.

- 6. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2018.**

Not Applicable.

V. Experience and Capability

1. Necessary Skills and Experience

The applicant shall demonstrate that it has the necessary skills, abilities, knowledge of, and experience relating to the request. State your experience and appropriateness for providing the service proposed in this application. The applicant shall also provide a listing of verifiable experience of related projects or contracts for the most recent three years that are pertinent to the request.

HCPA is governed by a board of directors, whose members have extensive background and experience in clean energy, public policy, engineering, and law. HCPA's contracted executive director is Frederick Redell. Mr. Redell most recently served as the Energy Commissioner for the County of Maui, a position appointed by the Maui Mayor. Prior to his position as Energy Commissioner, Mr. Redell served in various executive level positions in the renewable energy industry. (A copy of Mr. Redell's resume is attached.)

2. Facilities

The applicant shall provide a description of its facilities and demonstrate its adequacy in relation to the request. If facilities are not presently available,

describe plans to secure facilities.

HCPA intends to lease office space and facilities in downtown Honolulu.

VI. Personnel: Project Organization and Staffing

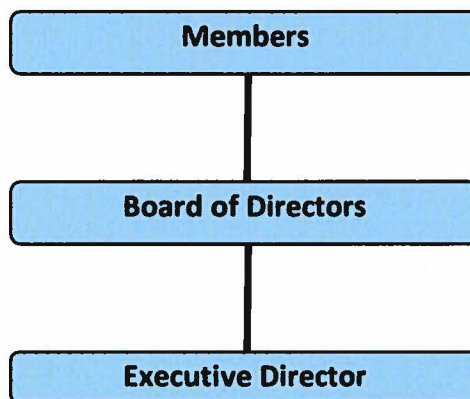
1. Proposed Staffing, Staff Qualifications, Supervision, and Training

The applicant shall describe the proposed staffing pattern and proposed service capacity appropriate for the viability of the request. The applicant shall provide the qualifications and experience of personnel for the request and shall describe its ability to supervise, train and provide administrative direction relative to the request.

As stated above, HCPA's contracted executive director is Frederick Redell. Mr. Redell's experience is noted above. Mr. Redell will report to the HCPA board of directors, whose members have extensive background and experience in clean energy, public policy, engineering, and law. Additionally, HCPA will engage the services of other qualified consultants.

2. Organization Chart

The applicant shall illustrate the position of each staff and line of responsibility/supervision. If the request is part of a large, multi-purpose organization, include an organization chart that illustrates the placement of this request.



3. Compensation

The applicant shall provide an annual salary range paid by the applicant to the three highest paid officers, directors, or employees of the organization by position title, not employee name.

Not Applicable. Staffing will be provided through contractors.

VII. Other

1. Litigation

The applicant shall disclose any pending litigation to which they are a party, including the disclosure of any outstanding judgement. If applicable, please explain.

Not Applicable. HCPA is not party to any current or pending litigation.

2. Licensure or Accreditation

The applicant shall specify any special qualifications, including but not limited to licensure or accreditation that the applicant possesses relevant to this request.

Not Applicable. There are no relevant special licensures or accreditations required for HCPA to undertake its activities. However, HCPA's executive director and members of its board of directors have degrees and licenses in engineering, law, and other areas relevant to the activities proposed.

3. Private Educational Institutions

The applicant shall specify whether the grant will be used to support or benefit a sectarian or non-sectarian private educational institution. Please see [Article X, Section 1, of the State Constitution](#) for the relevance of this question.

Not Applicable. This grant will not be used to support or benefit a sectarian or non-sectarian private educational institution.

4. Future Sustainability Plan

The applicant shall provide a plan for sustaining after fiscal year 2019-20 the activity funded by the grant if the grant of this application is:

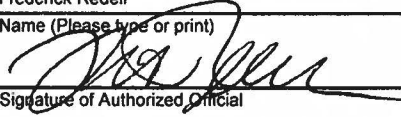
- (a) Received by the applicant for fiscal year 2019-20, but*
- (b) Not received by the applicant thereafter.*

HCPA intends that its programs, will become self-sustaining through dues and other payments from members and stakeholders.

BUDGET REQUEST BY SOURCE OF FUNDS

Period: July 1, 2019 to June 30, 2020

Applicant: Hawaii Clean Power Alliance

BUDGET CATEGORIES	Total State Funds Requested (a)	Total Federal Funds Requested (b)	Total County Funds Requested (c)	Total Private/Other Funds Requested (d)
A. PERSONNEL COST	0	0	0	0
1. Salaries	0	0	0	0
2. Payroll Taxes & Assessments	0	0	0	0
3. Fringe Benefits	0	0	0	0
TOTAL PERSONNEL COST	0	0	0	0
B. OTHER CURRENT EXPENSES				
1. Airfare, Inter-Island	10,000	0	0	0
2. Insurance	3,000	0	0	0
3. Lease/Rental of Equipment	0	0	0	0
4. Lease/Rental of Space	6,000	0	0	0
5. Staff Training	0	0	0	0
6. Supplies	2,000	0	0	0
7. Telecommunication	0	0	0	0
8. Utilities	0	0	0	0
9. Contractors	140,000	0	0	20,000
10. Web Design, Newsletter Design, Social	7,000	0	0	0
11. Seminars, Educational Briefings, Outreach	32,000	0	0	0
12		0	0	0
13				
14				
15				
16				
17				
18				
19				
20				
TOTAL OTHER CURRENT EXPENSES	200,000			20,000
C. EQUIPMENT PURCHASES				
D. MOTOR VEHICLE PURCHASES				
E. CAPITAL				
TOTAL (A+B+C+D+E)	200,000			20,000
SOURCES OF FUNDING		Budget Prepared By:		
(a) Total State Funds Requested	200,000	Frederick Redell	949-701-8249	
(b) Total Federal Funds Requested	0	Name (Please type or print)	Phone	
(c) Total County Funds Requested	0		Date	1/16/2019
(d) Total Private/Other Funds Requested	20,000	Signature of Authorized Official	Date	
TOTAL BUDGET	220,000	Frederick Redell, Executive Director Name and Title (Please type or print)		

BUDGET JUSTIFICATION - PERSONNEL SALARIES AND WAGES

Period: July 1, 2019 to June 30, 2020

Applicant: Hawaii Clean Power Alliance

POSITION TITLE	FULL TIME EQUIVALENT	ANNUAL SALARY A	% OF TIME ALLOCATED TO GRANT REQUEST B	TOTAL STATE FUNDS REQUESTED (A x B)
NOT APPLICABLE - HCPA will utilize qualified consultants				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
				\$ -
TOTAL:				\$ -

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Period: July 1, 2019 to June 30, 2020

Applicant: Hawaii Clean Power Alliance

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
Not Applicable			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
TOTAL:				

JUSTIFICATION/COMMENTS:

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
Not Applicable			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
TOTAL:				

JUSTIFICATION/COMMENTS:

BUDGET JUSTIFICATION - CAPITAL PROJECT DETAILS

Period: July 1, 2019 to June 30, 2020

Applicant: Hawaii Clean Power Alliance

FUNDING AMOUNT REQUESTED						
TOTAL PROJECT COST	ALL SOURCES OF FUNDS RECEIVED IN PRIOR YEARS		STATE FUNDS REQUESTED	OTHER SOURCES OF FUNDS REQUESTED	FUNDING REQUIRED IN SUCCEEDING YEARS	
	FY: 2017-2018	FY: 2018-2019	FY:2019-2020	FY:2019-2020	FY:2020-2021	FY:2021-2022
PLANS	0	0	0	0	0	0
LAND ACQUISITION	0	0	0	0	0	0
DESIGN	0	0	0	0	0	0
CONSTRUCTION	0	0	0	0	0	0
EQUIPMENT	0	0	0	0	0	0
TOTAL:	0	0	0	0	0	0
JUSTIFICATION/COMMENTS: NOT APPLICABLE						

GOVERNMENT CONTRACTS, GRANTS, AND / OR GRANTS IN AID

Applicant: Hawaii Clean Power Alliance

Contracts Total: None

	CONTRACT DESCRIPTION	EFFECTIVE DATES	AGENCY	GOVERNMENT ENTITY (U.S. / State / Haw / Hon / Kau / Mau)	CONTRACT VALUE
1	Not Applicable				
2					
3					
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Frederick Redell, PE

811 Elk Rest Rd
Evergreen, Colorado 80439

(949) 701-8249
frederick.redell@blunebu.com

Summary

Mr. Redell has over twenty years' experience in energy and previously served as the Managing Director of Abengoa Solar LLC with overall responsibility for all of the activities of Abengoa Solar in the United States. Previous to that position, Mr. Redell served as General Manager for Abengoa Solar's Mojave Solar Project, responsible for all of phases of the development, construction, and operation of the \$1.6 billion Mojave Solar Project. In his prior employment with Abengoa, Mr. Redell served as the Engineering Director for Abengoa Solar LLC.

Prior to joining Abengoa Solar, Mr. Redell owned an engineering company specializing in energy facility development. In addition to that, Mr. Redell has worked in several roles over his career including operations, engineering, and project management.

Mr. Redell is a graduate from the University of Illinois, Chicago with a Bachelor of Science degree in Mechanical Engineering where he graduated with highest honors. His graduate work was at the University of California, San Diego, where he was a Graduate Student Researcher at the Center for Energy and Combustion Research. In addition, Mr. Redell is a graduate of the Naval Nuclear Power Program, has served on two submarines from 1989 to 1995, and was a Navy Diver. Mr. Redell holds a professional engineering license in California.

Relevant Experience

BlüNebü LLC, Boulder, Colorado Managing Member, 2016 – present

BlüNebü focuses on asset management and development including solar, energy storage, transmission, water, and other infrastructure-related assets along with conducting market studies for new-market entrants. Some recent and current work includes:

- Asset management services for Atlantica Yield PLC on their Mojave and Solana projects including monitoring and improving operations and maintenance, managing transmission issues, assisting with the management of repair and improvement projects.
- Market studies and research for Wärtsilä to enter the US market in a new product area.
- Market studies and research for EnergyNest to understand the potential for adding energy storage to a number of operating solar thermal assets.

County of Maui, Wailuku, Maui, Hawaii Energy Commissioner, 2016 – 2018

Serves as a facilitator and advisor in all areas of energy to help the County and community understand their common objectives and assist in a plan on how to meet these objectives. In addition he is the County's advisor in reaching the renewable energy and sustainability goals of the Mayor.

- Monitoring and affecting policy making at the Hawaii Public Utility Commission through actively participating in cases related to energy.
- Working with businesses and residents to understand their energy goals and incorporating those into a unified energy strategy.
- Identifying synergies and untapped opportunities to make the electricity grid more flexible and able to accept more renewable generation in a way that is both cost effective and fair.
- Championing a lasting strategy for the community for a sustainable energy future including Community Based Renewable Energy and Electric Vehicles.

Abengoa Solar LLC, Lakewood, Colorado

Managing Director, US 2014 – 2016

Managing Director of Abengoa Solar's US Business.

- Responsible for financial and administrative forecasting, managing the P&L for all US businesses.
- Sets the direction for market development in the US including large scale solar-thermal, PV, industrial-thermal, and energy storage systems.
- Manages Operations and Maintenance company, operating two of the largest solar power plants in the world, ensuring key performance metrics are properly implemented and projects are maintained according to proper industry standards.
- Sets strategy and manages regulation at the state and federal level.
- Managed new asset development including the Palen Solar Project including engineering, siting, transmission, land, EPC agreements, and power purchase agreements.

Leadership Activities:

- Member of the Board of IEP (Independent Energy Producers Association)
- Member of the Board of SEIA (Association of Solar Energy in the US)
- Member ESA (Energy Storage Association)
- Member CESA (California Energy Storage Association)

Abengoa Solar LLC, Lakewood, Colorado

General Manager, Mojave Solar LLC 2012 – 2014

- Responsible for financial and administrative implementation and development, forecasting and P&L account, target definition and supervision of Mojave Solar LLC.
- Overseeing financial, regulatory, and permitting compliance of the Mojave Solar Project.
- Overseeing the team responsible for construction supervision and O&M development of the Mojave Solar Project.

Abengoa Solar LLC, Lakewood, Colorado

Engineering Director 2009 – 2012

- Responsible for engineering and design for solar projects in the U.S.
- Managed review and coordination with EPC contractors to ensure design, construction, and performance of projects.
- Primary interface with Lenders' Independent Engineers on the Mojave and Solana.

- Participated in design reviews of new technologies (advanced storage technologies, solar troughs and heliostats) with particular focus on constructability and performance.

***Redell Engineering Inc. Santa Ana, California
Owner 2007 – 2009***

Founded Redell Engineering to provide consulting services that focus on energy related projects in commercial, aerospace and defense industries. Projects included:

- Mojave Solar Project - 250 MW solar thermal energy facility permitting including permitting project management and engineering coordination.
- Beacon Solar Project - 250 MW solar thermal energy facility permitting – authored project description and alternatives analyses section for Application for Certification
- Earth Orbiting Calibration Devices – Design and analysis of low-cost calibration objects for thermal, optical, and radio frequency sensors.
- Solar Concentrator for Space Propulsion – Conceptual design and numerical modeling of novel deployable solar concentrator structure.

***Inland Energy Newport Beach, California
Vice President, Engineering 2006-2007***

Primarily responsible for the technical and design performance aspects of power plant development efforts. Working closely with contractors, acted as the technical-to-environmental interface, coordinated all permitting efforts (technical and environmental requirements, budget and schedule) for CEC licensing of a 563 MW facility, as well as air quality and biological resources-related permits. Coordinated the design efforts for a power plant combining a gas-fired combined cycle power plant integrated with 50 MW of solar thermal; this involved design coordination across multiple disciplines and involving multiple subcontractors and specialists.

***L'Garde Inc. Tustin, California
Project Engineer/Program Manager 2002 – 2006***

Researched innovative techniques to improve the power-to-weight ratio for photovoltaic space-power systems. Developed a space-based long-lived solar concentrator technology by investigating novel methods to deploy and shape large aperture solar concentrators with inflation and subsequently rigidize the reflector allowing large apertures to be utilized for deep space applications. Additional work includes mechanical design, thermal and structural analysis utilizing classical and numerical methods, and material testing.

***Kulicke & Soffa Industries San Jose, California
Senior Mechanical Engineer 2001 – 2002***

Managed capital equipment expansion that included specifying equipment requirements, negotiating terms, overseeing installation, and prepping equipment for process qualification using Microsoft Project. Designed, tested and implemented equipment modifications for pilot manufacturing line. Developed innovative ideas to increase product yield and reduce cycle time.

Prior to 2000 available upon request

Education

M.S., Mechanical Engineering, University of California, San Diego

**B.S., Mechanical Engineering, University of Illinois, Chicago
Executive Education, Georgetown University, Washington D.C.
U.S. Navy Nuclear Power Training Program**

**Registered Professional Engineer (CA M33758), Mechanical, California
Awarded Navy Achievement Medal twice, also awarded the Expeditionary Medal twice
Member American Society of Mechanical Engineers
Prior Member American Institute of Aeronautics and Astronautics
Prior Member Tau Beta Pi, Illinois Zeta Chapter**