

House District \_\_\_\_\_

Senate District \_\_\_\_\_

**THE TWENTY-SEVENTH LEGISLATURE  
APPLICATION FOR GRANTS AND SUBSIDIES  
CHAPTER 42F, HAWAII REVISED STATUTES**

Log No: \_\_\_\_\_

For Legislature's Use Only

Type of Grant or Subsidy Request:

GRANT REQUEST – OPERATING

GRANT REQUEST – CAPITAL

SUBSIDY REQUEST

(Request for program extension funding)

"Grant" means an award of state funds by the legislature, by an appropriation to a specified recipient, to support the activities of the recipient and permit the community to benefit from those activities.

"Subsidy" means an award of state funds by the legislature, by an appropriation to a recipient specified in the appropriation, to reduce the costs incurred by the organization or individual in providing a service available to some or all members of the public.

"Recipient" means any organization or person receiving a grant or subsidy.

STATE DEPARTMENT OR AGENCY RELATED TO THIS REQUEST (LEAVE BLANK IF UNKNOWN): \_\_\_\_\_

STATE PROGRAM I.D. NO. (LEAVE BLANK IF UNKNOWN): \_\_\_\_\_

1. APPLICANT INFORMATION: Maui Economic Development Board, Inc.

Legal Name of Requesting Organization or Individual:

Db/a: MEDB, Inc.

Street Address: 1305 N. Holopono St., Suite 1

Mailing Address: Kihei, HI 96753

2. CONTACT PERSON FOR MATTERS INVOLVING THIS APPLICATION:

Name Leslie Wilkins

Title Vice President

Phone # (808) 875-2337

Fax # (808) 879-0011

e-mail leslie@medb.org

3. TYPE OF BUSINESS ENTITY:

- NON PROFIT CORPORATION
- FOR PROFIT CORPORATION
- LIMITED LIABILITY COMPANY
- SOLE PROPRIETORSHIP/INDIVIDUAL

6. DESCRIPTIVE TITLE OF APPLICANT'S REQUEST:

**Island Energy Inquiry™ (IEI)**

Original clean energy science curriculum & training

4. FEDERAL TAX ID #: [REDACTED] 7

5. STATE TAX ID #: [REDACTED]

7. AMOUNT OF STATE FUNDS REQUESTED:

FISCAL YEAR 2015: \$ 550,000.00

8. STATUS OF SERVICE DESCRIBED IN THIS REQUEST:

- NEW SERVICE (PRESENTLY DOES NOT EXIST)
- EXISTING SERVICE (PRESENTLY IN OPERATION)

(GIA for expansion of training model)

SPECIFY THE AMOUNT BY SOURCES OF FUNDS AVAILABLE AT THE TIME OF THIS REQUEST:

STATE \$ \_\_\_\_\_  
 FEDERAL \$ 400,000  
 COUNTY \$ 30,000  
 PRIVATE/OTHER \$ 30,000

Leslie Wilkins, Vice President  
NAME & TITLE

01/31/2014  
DATE SIGNED

## Application for Grants and Subsidies

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

### I. 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. Include the following:

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

The Maui Economic Development Board's Women in Technology Project (WIT) is a workforce development project launched in 1999 and funded in part by the U.S. Departments of Labor, Education, Office of Naval Research, Industry, Private donors, and the County of Maui. Its mission is to build Hawaii's science, technology engineering and math (STEM) education-to-workforce pipeline, using an inclusive model that engages girls, Native Hawaiians, and other under-represented groups. WIT's statewide STEM infrastructure served 40,000 participants last year, and reached each island throughout the state.

In 2009 WIT developed and launched Island Energy Inquiry<sup>TM</sup> (IEI) to address the critical issue of fossil fuel dependence and the need for renewable energy solutions in the state of Hawaii. IEI is a place-based, culturally competent Professional Development (PD) program that educates K-12 students on renewable energy resources and incorporates STEM-focused, engineering design solutions. Originating on the island of Maui, IEI has expanded its reach to the islands of Oahu, Kauai, Lanai, Molokai, and Hawaii Island, educating a total of 286 teacher participants representing over 45,000 Hawaii students to date.

One of IEI's strengths is its applicability to various grade levels and subject areas. Teachers not only come from STEM subject areas, but also language arts, fine arts, social studies, and career and technical education. Because of the diverse backgrounds of the IEI participant teachers, students across disciplines are introduced to engineering design concepts and scientific inquiry methodology through IEI activities, such as wind turbine building, energy auditing, and solar power system design.

As a Hawaii DOE Professional Development (PD) course, IEI has addressed the Hawaii Content and Performance Standards (HCPS III) in Science as part of its implementation process. More recently, IEI has adopted the Common Core State Standards Initiative (CCSS) as well as the Next Generation Science Standards (NGSS), based on the framework for K-12 Science Education and developed by the National Research Council. IEI is in the process of selecting benchmarks from among the CCSS for Reading and Math and applying them to the next edition of the IEI Curriculum Guide.

2. The goals and objectives related to the request;

A key outcome of IEI is contributing to an education-workforce pipeline that will supply workers with the engineering and technical capacity to lead the next generation towards independence from fossil fuels and develop clean energy solutions unique to Hawaii. IEI addresses the multi-faceted challenge of preparing a local workforce that is knowledgeable in clean energy issues as well as STEM concepts through PD coursework that:

- A. Utilizes inquiry learning, project-based applications to interest students in STEM.
- B. Provides teachers with information on renewable energy progress in Hawaii and builds their capacity in progressive teaching methods that transcend multiple subjects.
- C. Connects industry members with educators to facilitate mentoring and create real world experiences for students.

The original curriculum is a vehicle for teachers across the state to teach students STEM concepts while incorporating highly relevant information about renewable energy data, design, and resources. It maintains a place-based foundation, providing examples that are relevant to Hawaii's geography, climate, and culture. IEI encourages students to use critical thinking skills to solve problems, to ask relevant questions about the subject matter they are learning, and to successfully apply theoretical concepts to real-world challenges through hands-on educational activities.

3. The public purpose and need to be served;

The state of Hawaii is more dependent than any other state in the nation on the importation of fossil fuel. Hawaii currently imports 90% of its energy. Energy sustainability for this remote island chain will require reducing reliance on imported fossil fuels and a significant increase in reliance on renewable energy sources in the islands, such as wind, solar, geothermal, and wave energy. In 2008, Hawaii made a public commitment to achieve 70% clean energy by 2030. An estimated thirty percent of this increase is expected to result from increases in energy efficiency. Hawaii's clean energy target is one of the most ambitious in the nation, and, if achieved, could serve as an example for the United States and the world.

In order to meet the need for a talented clean energy workforce in Hawaii, local students must pursue educational and career pathways in science, technology, engineering, and math (STEM). STEM is a high-growth, high-paying sector. Over the past 10 years, growth in STEM jobs [in the United States] was three times as fast as growth in non-STEM jobs. STEM employment is expected to grow 17% between 2008 and 2018, far faster than the 10% growth projected for overall employment. Also, the average annual wage for all STEM occupations was \$77,880 in May 2009, significantly above the U.S. average of \$43,460 for non-STEM occupations. (The Case for STEM Education as a National Priority: Good Jobs and American Competitiveness. (June 2013). STEM Education Coalition. <http://www.stemedcoalition.org/wp-content/uploads/2013/10/Fact-Sheet-STEM-Education-Good-Jobs-and-American-Competitiveness-June-2013.pdf> )

In the United States, demand for STEM workers is unmet. In the STEM occupations, job postings outnumbered unemployed people by 1.9 to one. These national workforce trends are

also reflected in Hawaii, where projections indicate that there will be 29,000 STEM-related jobs to be filled by 2018.

Despite the high demand for STEM workers and the incentive of a well-paying career in the field, the United States still struggles to sufficiently educate its students in this area. Only one in five STEM college students felt that their K-12 education prepared them extremely well for their college courses in STEM. Fewer than 40 percent of students who enter college intending to major in a STEM field complete a STEM degree. There is also still a disproportion between women and men pursuing STEM education and careers. A National Science Foundation survey found that in 2006, 15.1% of American female first-year college students majored in the STEM field, versus 29.3% of American male first year college students. The gender disparity in plans to major is even more significant when the biological or environment sciences are not included. Just over one-fifth of male freshmen planned to major in engineering, computer science, or the physical sciences, compared to only about 5% of female freshmen.

4. Describe the target population to be served; (See Attachment 1) and Teachers and students throughout the state from grades 4-12.  
The proposed funding will train 120 DOE teachers, reaching 13,500 students
5. Describe the geographic coverage. (See Attachment 2) Statewide coverage: Islands of Oahu, Kauai, Maui, Molokai, Lanai, and the Island of Hawaii. (See attachment with map and list of expansions schools, there is currently an 80 teacher waitlist for trainings)

## **II. Service Summary and Outcomes**

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

The IEI program includes the following hardware and educational resources utilized within the training. (Each teacher, upon completion of their training, will be provided their own set in a turnkey format for classroom implementation): (See Attachment 3)

- IEI curriculum in hard copy, CD, DVD, and online formats
- Solar heating, energy auditing, solar photovoltaic, wind energy/turbine design modules
- A comprehensive materials kit for teachers to enhance lesson activities, including materials for each of the modules hands-on lessons.
- Ongoing technical support from MEDB trainers and industry mentors

IEI staff leads a 2-day teacher workshop intensive with interactive inquiry models, including local industry professionals from engineering, science, and agriculture technology backgrounds present at IEI workshop. Educators take resources from these presenters and inform their own students about current renewable energy trends in Hawaii. This method provides a high-impact expansion of statewide knowledge in renewable energy, offers local industry leaders the opportunity to improve or maintain their organization's public image, and provides the essential connection between education and industry that shows students the possibilities of a career in renewable energy and STEM.

IEI is registered within Hawaii's Department of Education (DOE) system, PDE3, as a 3-credit PD course for qualifying teachers. Teachers attend all sessions of a full two-day workshop, including survey events and homework assignments. At workshop conclusion, they remain onsite, working with IEI staff to develop the first two lessons for their classroom to earn an "exit pass" from the event. Within two months, they are required to participate in two, 90-minute online video teleconference sessions with peers and IEI instructors to share the lessons they've implemented. Finally, they prepare a 30-50 page Learning Results Portfolio (LRP) with write-ups for each lesson along with sample student and teacher reflections. The LRP final reflection focuses on the changes the teacher has implemented in his/her instructional methods that reach beyond the energy lessons of the course itself.

WIT reviews all teacher portfolios, and works directly with teachers to enhance their work, until it is complete and satisfactory. At that point, DOE professionals audit sample portfolios for compliance, granting approval to the entire class if the samples qualify. This streamlined process saves resources at the DOE screening level and attests to the close working relationship between the IEI project and the teachers it serves.

Once trained, teachers will not only employ the specific curricula provided by the project, but will understand the importance of engaging students with hands-on, inquiry-led approaches to teaching STEM, and how to incorporate the use of cutting-edge technology into their teaching. Thus, the educator training will increase the cadre of education leaders in our County and our State who will become peer leaders on the project goals and who will share their knowledge with colleagues, parents and students.

2. Provide a projected annual timeline for accomplishing the results or outcomes of the service (See Timeline Attachment 4)
3. Describe its quality assurance and evaluation plans for the request. Specify how the applicant plans to monitor, evaluate, and improve their results; a

As part of its ongoing evaluation process, IEI administers pre- and post-workshop assessments to its participants, utilizing audience response systems technology to instantly record and save results. Assessments are designed by IEI WIT staff. The IEI workshop pre-assessment mainly focuses on the participating educators' demographic information and intentions regarding attending the workshop. IEI workshop post-assessments focus on how participants' capacities improve in inquiry learning methodology, clean energy knowledge, and understanding gender equity in classroom education, especially in science.

4. List the measure(s) of effectiveness that will be reported to the State agency through which grant funds are appropriated (the expending agency).

For students engaged in the Island Energy Inquiry classroom learning activities as a result of the teacher workshops, student pre-assessment and post-assessment surveys will

specifically measure changes in student knowledge or awareness of: 1) energy science content, 2) the scientific inquiry process & the engineering design process, 3) current energy issues and potential for Hawaii. Our benchmark target is a result of 80% of participating students showing increased understanding.

For the proposed 120 teachers who are trained in the IEI Professional Development workshops, pre- and post- assessments are administered and compiled, including garnering feedback for improvement opportunities in the program. IEI will monitor and report the number of teachers successfully completing their PD portfolios and attaining credit.

**III. Financial**

Typical costs for a DOE student per year are over \$8,000, whereas the cost of Island Energy Inquiry™ is only \$25 per student. Because IEI teachers reach 115 students on average, the impact of IEI training is noteworthy. From November 2012 to October 2013, the IEI team trained 125 teachers from 6 islands, reaching 13,885 students of Hawaii. Teachers report that IEI students are motivated and self-directed, and teachers themselves regain enthusiasm for their profession. Additionally, students and their families gain project-based knowledge of Hawaii’s active role in implementing renewable energies, tied to the State’s unique combination of high fuel costs and abundant and emerging natural energy sources.

**Budget**

1. The applicant shall submit a budget utilizing the enclosed budget forms as applicable, to detail the cost of the request. (SEE REQUIRED FORMS)
2. The applicant shall provide its anticipated quarterly funding requests for the fiscal year 2015.

Quarter 1	Quarter 2	Quarter 3	Quarter 4	Total Grant
150,000	150,000	150,000	100,000	550,000

3. The applicant shall provide a listing of all other sources of funding that they are seeking for fiscal year 2015.
  - a. Federal funding from DOL, EPA, DOEd, NOAA, Office of Naval Research (ONR) totaling \$2 million
  - b. County of Maui funding for \$500,000
  - c. Private fundraising totaling \$300,000
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. N/A
5. The applicant shall provide the balance of its unrestricted current assets as of December 31, 2013. \$2,268,747, primarily comprised of MEDB’s mortgaged building and a federal/county grant portfolio under contract for business development and education/workforce development activities.

**BUDGET REQUEST BY SOURCE OF FUNDS**  
(Period: July 1, 2014 to June 30, 2015)

Applicant: Maui Economic Development Board, Inc.

<b>BUDGET CATEGORIES</b>	<b>Total State Funds Requested (a)</b>	<b>(b)</b>	<b>(c)</b>	<b>(d)</b>
<b>A. PERSONNEL COST</b>				
1. Salaries	9,138	9,138	9,138	9,138
2. Payroll Taxes & Assessments	0	0	0	0
3. Fringe Benefits	3,822	3,822	3,822	3,822
<b>TOTAL PERSONNEL COST</b>	<b>12,960</b>	<b>12,960</b>	<b>12,960</b>	<b>12,960</b>
<b>B. OTHER CURRENT EXPENSES</b>				
1. Airfare, Inter-Island	10,000	10,000	10,000	10,000
2. Insurance				
3. Lease/Rental of Equipment				
4. Lease/Rental of Space				
5. Staff Training				
6. Supplies	2,500	2,500	2,500	2,500
7. Telecommunication				
8. Utilities				
9. Teacher Training (120 @ \$595)	17,860	17,860	17,860	17,860
10. Classroom Supplies	43,943	43,943	43,943	22,500
11. Web Site	5,000	5,000	5,000	5,000
12. Web Conference	988	988	988	988
13. Curriculum	8,000	8,000	8,000	8,000
14. Interactive Curriculum Development - Expanded Modules	48,750	48,750	48,750	20,193
15				
16				
17				
18				
19				
20				
<b>TOTAL OTHER CURRENT EXPENSES</b>	<b>137,040</b>	<b>137,040</b>	<b>137,040</b>	<b>87,040</b>
<b>C. EQUIPMENT PURCHASES</b>				
<b>D. MOTOR VEHICLE PURCHASES</b>				
<b>E. CAPITAL</b>				
<b>TOTAL (A+B+C+D+E)</b>	<b>150,000</b>	<b>150,000</b>	<b>150,000</b>	<b>100,000</b>
<b>SOURCES OF FUNDING</b>		Budget Prepared By:		
(a) Total State Funds Requested	150,000	Leslie Wilkins (808) 875-2337		
(b)	150,000	Name (Please type or print) Phone		
(c)	150,000	[Redacted Signature]		
(d)	100,000	Signature of Requestor/Contact		
<b>TOTAL BUDGET</b>	<b>\$ 550,000.00</b>	Leslie Wilkins, Vice President Name and Title (Please type or print)		



## BUDGET JUSTIFICATION - EQUIPMENT AND MOTOR VEHICLES

Applicant: Maui Economic Development Board,    Period: July 1, 2014 to June 30, 2015

DESCRIPTION EQUIPMENT	NO. OF ITEMS	COST PER ITEM	TOTAL COST	TOTAL BUDGETED
			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOTAL:</b>				
<b>JUSTIFICATION/COMMENTS:</b>				

DESCRIPTION OF MOTOR VEHICLE	NO. OF VEHICLES	COST PER VEHICLE	TOTAL COST	TOTAL BUDGETED
			\$ -	
			\$ -	
			\$ -	
			\$ -	
			\$ -	
<b>TOTAL:</b>				
<b>JUSTIFICATION/COMMENTS:</b>				

**BUDGET JUSTIFICATION  
CAPITAL PROJECT DETAILS**

Applicant: Maui Economic Development Board,

Period: July 1, 2014 to June 30, 2015

<b>FUNDING AMOUNT REQUESTED</b>						
<b>TOTAL PROJECT COST</b>	<b>ALL SOURCES OF FUNDS RECEIVED IN PRIOR YEARS</b>		<b>STATE FUNDS REQUESTED</b>	<b>OF FUNDS REQUESTED</b>	<b>FUNDING REQUIRED IN SUCCEEDING YEARS</b>	
	<b>FY: 2012-2013</b>	<b>FY: 2013-2014</b>	<b>FY:2014-2015</b>	<b>FY:2014-2015</b>	<b>FY:2015-2016</b>	<b>FY:2016-2017</b>
PLANS						
LAND ACQUISITION						
DESIGN						
CONSTRUCTION						
EQUIPMENT						
<b>TOTAL:</b>						
<b>JUSTIFICATION/COMMENTS:</b>						

**DECLARATION STATEMENT OF  
APPLICANTS FOR GRANTS AND SUBSIDIES 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 and subsidies 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 or subsidy 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 or subsidy 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 or subsidy.
- 2) 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 or subsidy 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.

Pursuant to Section 42F-103, Hawaii Revised Statutes, for grants or subsidies used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant or subsidy 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 or subsidy 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.

Maui Economic Development Board, Inc.

(Typed Name of Individual or Organization)

(Signature) /

Leslie Wilkins

(Typed Name)

1/30/14

(Date)

Vice President

(Title)

## **IV. Experience and Capability**

### **A. 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.

The Women in Technology (WIT) Project, a workforce development program under the umbrella of Maui Economic Development Board, has been building education programs in STEM for K-12 schools statewide for over 13 years. In particular, WIT builds programs for underrepresented populations in STEM fields, including girls, women, and indigenous populations, seeking to increase equity for all. IEI grew out of an annual Inquiry Science PD event for middle and high school science teachers. Recognizing the need for developing skills in energy science, WIT developed the state's first renewable energy PD model which was first piloted on Maui and then soon expanded to reach teachers statewide with its current proven successful reach to 286 teachers and 45,000 students. MEDB retains independent A-133 audits annually and due to its years of unconditional opinions, clean audits, with no material weaknesses, MEDB is classified as a low risk auditee.

### **B. 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. The applicant shall also describe how the facilities meet ADA requirements, as applicable.

MEDB operates and manages its own training facility, with state-of-the art technology and distance learning equipment, meeting all ADA compliance. Much of the training will be on site at the participating schools.

## V. Personnel: Project Organization and Staffing

### A. Proposed Staffing, Staff Qualifications, Supervision and Training

Non-profit MEDB has 33 years of experience in program development and implementation to diversify Hawaii's economy and build the requisite resident trained workforce. It is led by a 32-member Board of Directors from the state's most recognized leaders in industry, government, academia, and community organizations. Its skilled 24-member staff manages a complex project portfolio in economic and workforce development, with a funding base from federal, state, county, and private industry and community investments.

MEDB will utilize its existing trained staff that has a proven track record for its successful implementation, whose salaries are leveraged by other funding sources to implement the proposed program.

Senior Management team for the IEI program:

**Leslie Wilkins**, Vice President and Women in Technology Program Director will continue to serve as the Program Director for the proposed program. She will draw from her 15-years of experience designing, launching, and implementing the U.S. Department of Labor funded Women in Technology Project prior and existing programs. She has been the PD for \$15 million in federal funds from 8 different federal agencies. In June 2000, she was elected by MEDB's Board of Directors to the position of Vice President. Prior to joining MEDB she operated a grant writing consulting business and spent 10-years in Hawaii's commercial banking industry. Ms. Wilkins is an experienced advocate for girls/women and underrepresented minorities, education and workplace equity issues. She has served in state and national leadership roles with the Business & Professional Women's Organization (BPW/USA) for more than two decades and currently chairs the Hawaii State Commission on the Status of Women and the Maui Local WIB.

**Isla Young** will continue to serve as a K-12 STEM Director for the proposed program. She will draw on her 10 years of experience in STEM program leadership. Prior to serving as a Project Manager for WIT, Ms. Young was a Project Assistant at the Maui Economic Development Board. In addition, she serves as the National Geographic Hawaii Alliance Co-coordinator, Small Learning Community (SLC) Advisory board member, and the Vice President of the Hawaii Geographic Information Coordinating Council (HIGICC).

**Frank R. De Rego, Jr.** serves as a Project Manager for WIT responsible for original curriculum design and professional development training. Prior to returning home to Maui to serve in this position, Mr. De Rego attained an extensive teaching background including junior high, high school, university and adult continuing education. For 9 years at Purdue University, Mr. De Rego's work centered on developing curriculum for university engineering students on the social context of technology, professional skills and professional ethics within a user-centered, team based, service-learning in engineering program. Mr. De Rego is a member of the American Society of Engineering Education

**Graham DeVey** is a professional engineer, 18-year science teacher within the Maui Complex Area DOE, and currently a professional development designer and trainer in inquiry-based methodology and clean energy science for the Island Energy Inquiry Program. He has professional development credentialing authority granted by the DOE.

**B. Organization Chart**

(See Attachment 5)

**C. Compensation**

The applicant shall provide the annual salaries paid by the applicant to the three highest paid officers, directors, or employees of the organization by position.

[REDACTED], President & CEO  
[REDACTED], Vice President and Program Director  
[REDACTED], K-12 STEM Director

**VI. Other**

**A. 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. N/A

**B. Licensure or Accreditation**

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

Lead IEI instructor is a licensed teacher in the State of Hawaii and holds a professional engineering credential.

**C. Sustainability.** The IEI proposed program is highly leveraged and not solely dependent on the requested state funding. This GIA request will help the program ramp up to serve unmet current teacher demand and continue to expand the reach of the program. Teachers trained within the DOE will continue to serve students beyond the students counted in this one-year implementation. Teacher capacity in inquiry-science, project-based activity management and clean energy science will remain within the DOE, as will the relationships developed with industry mentors. Each classroom will have their own set of materials and private industry support will continue to replenish supplies for later students. MEDB IEI is further using a “train the trainer” model to build training capacity on each island and lending libraries for other hardware supplies.

**DECLARATION STATEMENT OF  
APPLICANTS FOR GRANTS AND SUBSIDIES PURSUANT TO  
CHAPTER 42F, HAWAII REVISED STATUTES**

The undersigned authorized representative of the applicant certifies the following:

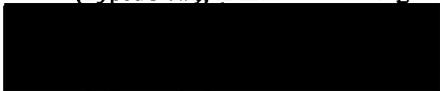
- 1) The applicant meets and will comply with all of the following standards for the award of grants and subsidies pursuant to Section 42F-103, Hawaii Revised Statutes:
  - a) Is licensed or accredited, in accordance with federal, state, or county statutes, rules, or ordinances, to conduct the activities or provide the services for which a grant or subsidy 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 or subsidy 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 or subsidy.
- 2) 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 or subsidy 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.

Pursuant to Section 42F-103, Hawaii Revised Statutes, for grants or subsidies used for the acquisition of land, when the organization discontinues the activities or services on the land acquired for which the grant or subsidy 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 or subsidy 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.

**Maui Economic Development Board, Inc.**

\_\_\_\_\_  
(Typed Name of Individual or Organization)



1/30/14  
\_\_\_\_\_  
(Date)

**Leslie Wilkins**

**Vice President**

\_\_\_\_\_  
(Typed Name)

\_\_\_\_\_  
(Title)



## 120 TEACHERS TO BE TRAINED FROM THE FOLLOWING STATEWIDE CANDIDATE SCHOOLS

### Hawai`i Island

#	School Name
1	Chiefess Kapi'olani Elementary
2	Connections New Century Public Charter School
3	Ernest Bowen de Silva Elementary
4	Ha'aheo Elementary
5	Hawai'i Academy of Arts & Science Public Charter School
6	Hilo High
7	Hilo Intermediate
8	Hilo Union Elementary
9	Holualoa Elementary
10	Honaunau Elementary
11	Honoka'a Elementary
12	Honoka'a High & Intermediate
13	Ho'okena Elementary
14	Ka 'Umeke Ka'eo Public Charter School
15	Kahakai Elementary
16	Kanu 'o ka 'Aina New Century Public Charter School
17	Ka'u High & Pahala Elementary
18	Ka'umana Elementary
19	Ke Ana La'ahana Public Charter School
20	Ke Kula 'o 'Ehunuikaimalino
21	Ke Kula 'o Nawahiokalani'opu'u Iki Laboratory Public Charter School
22	Kea'au Elementary
23	Kea'au High
24	Kealakehe Elementary
25	Kealakehe High
26	Kealakehe Intermediate
27	Keaukaha Elementary
28	Keonepoko Elementary
29	Kohala Elementary
30	Kohala High
31	Kohala Middle
32	Kona Pacific Public Charter School
33	Konawaena Elementary
34	Konawaena High
35	Kua 'O Ka La Public Charter School
36	Mountain View Elementary
37	Na Wai Ola New Century Public Charter School
38	Na'alehu Elementary
39	Pa'auilo Elementary & Intermediate
40	Pahoa Elementary
41	Pahoa High & Intermediate



# Island Energy Inquiry

## 120 TEACHERS TO BE TRAINED FROM THE FOLLOWING STATEWIDE CANDIDATE SCHOOLS

- 42 Prince Jonah Kuhio Kalaniana'ole Elementary & Intermediate
- 43 Volcano School of Arts & Sciences Community Public Charter School
- 44 Waiakea Elementary
- 45 Waiakea High

### Hawai'i Island continued...

- 46 Waiakea Intermediate
- 47 Waiakeawaena Elementary
- 48 Waikoloa Elementary & Middle
- 49 Waimea Elementary
- 50 Waimea Middle Public Conversion Charter School
- 51 West Hawai'i Explorations Academy Public Charter School

### Kauai

- | #  | School Name   |
|----|---|
| 52 | Chiefess Kamakahahei Middle   |
| 53 | 'Ele'ele Elementary   |
| 54 | Elsie H. Wilcox Elementary  |
| 55 | Hanalei Elementary  |
| 56 | Kalaheo Elementary  |
| 57 | Kanuikapono Learning Center Public Charter School                       |
| 58 | Kapa'a Elementary   |
| 59 | Kaua'i High   |
| 60 | Kawaikini New Century Public Charter School                             |
| 61 | Ke Kula Ni'ihau O Kekaha Learning Center Public Charter School          |
| 62 | Kekaha Elementary   |
| 63 | Kilauea Elementary  |
| 64 | King Kaumuali'i Elementary  |
| 65 | Koloa Elementary  |
| 66 | Kula Aupuni Niihau A Kahelelani Aloha New Century Public Charter School |
| 67 | Waimea Canyon Middle  |
| 68 | Waimea High   |

### Maui

- | #  | School Name                                       |
|----|---|
| 69 | Ha'iku Elementary                                 |
| 70 | Hana High & Elementary (& 408-Ke'anae Elementary) |
| 71 | Henry Perrine Baldwin High                        |
| 72 | Kihei Elementary                                  |
| 73 | Kula Elementary                                   |
| 74 | Lahaina Intermediate                              |
| 75 | Lihikai Elementary                                |



# Island Energy Inquiry

## 120 TEACHERS TO BE TRAINED FROM THE FOLLOWING STATEWIDE CANDIDATE SCHOOLS

76	Makawao Elementary
77	Pa'ia Elementary
78	Pomaika'i Elementary
79	Princess Nahi'ena'ena Elementary
80	Pu'u Kukui Elementary
81	Samuel Enoka Kalama Intermediate
82	Waihe'e Elementary
83	Wailuku Elementary

### Molokai

#	<u>School Name</u>
84	Kaunakakai Elementary
85	Kilohana Elementary
86	Kualapu'u Elementary New Century Public Conversion Charter School
87	Maunaloa Elementary

### Oahu

#	<u>School Name</u>
88	Admiral Chester W. Nimitz Elementary
89	'Ahuimanu Elementary
90	'Aiea Elementary
91	'Aiea High
92	'Aiea Intermediate
93	'Aikahi Elementary
94	'Aina Haina Elementary
95	Ala Wai Elementary
96	Aliamanu Elementary
97	Aliamanu Middle
98	Ali'iolani Elementary
99	Alvah A. Scott Elementary
100	August Ahrens Elementary
101	Barbers Point Elementary
102	Blanche Pope Elementary
103	Central Middle
104	Enchanted Lake Elementary
105	'Ewa Beach Elementary
106	'Ewa Elementary
107	Governor Samuel Wilder King Intermediate
108	Governor Sanford B. Dole Middle



# Island Energy Inquiry

## 120 TEACHERS TO BE TRAINED FROM THE FOLLOWING STATEWIDE CANDIDATE SCHOOLS

- 109 Gustav H. Webling Elementary
- 110 Haha'ione Elementary
- 111 Hakipu'u Learning Center New Century Public Charter School
- 112 Halau Ku Mana New Century Public Charter School
- 113 Halau Lokahi New Century Public Charter School
- 114 Hale'iwa Elementary
- 115 Hau'ula Elementary
- 116 Hawaii School for the Deaf and Blind
- 117 Hawai'i Technology Academy Public Charter School
- 118 He'eia Elementary
- 119 Helemano Elementary
- 120 Henry J. Kaiser High

### **Oahu continued...**

- 121 Hokulani Elementary
- 122 Holomua Elementary
- 123 Honowai Elementary
- 124 'Iliahi Elementary
- 125 Ilima Intermediate
- 126 Iroquois Point Elementary
- 127 James B. Castle High
- 128 James Campbell High
- 129 Ka Waihona o ka Na'auao: New Century Public Charter School
- 130 Ka'a'awa Elementary
- 131 Ka'ala Elementary
- 132 Ka'elepulu Elementary
- 133 Kahala Elementary
- 134 Kahalu'u Elementary
- 135 Kahuku Elementary
- 136 Kailua Elementary
- 137 Kailua Intermediate
- 138 Kaimiloa Elementary
- 139 Kaimuki High
- 140 Kainalu Elementary
- 141 Kalaheo High
- 142 Kalihi Elementary
- 143 Kalihi Waena Elementary
- 144 Kalihi-kai Elementary
- 145 Kalihi-uka Elementary
- 146 Kamaile Academy Public Charter School
- 147 Kanoelani Elementary
- 148 Kapalama Elementary
- 149 Kapolei Elementary
- 150 Kapolei Middle
- 151 Kapunahala Elementary



## 120 TEACHERS TO BE TRAINED FROM THE FOLLOWING STATEWIDE CANDIDATE SCHOOLS

- 152 Kauluwela Elementary
- 153 Ke Kula 'O Samuel M. Kamakau Laboratory Public Charter School
- 154 Keolu Elementary
- 155 Keone'ula Elementary
- 156 King David Kalakaua Middle
- 157 King Liholiho Elementary
- 158 King William Lunalilo Elementary
- 159 Kipapa Elementary
- 160 Koko Head Elementary
- 161 Kula Kaiapuni 'O Anuenue
- 162 Lanakila Elementary
- 163 Lanikai Elementary Public Charter School
- 164 Lehua Elementary
- 165 Leihoku Elementary
- 166 Leilehua High

### **Oahu continued...**

- 167 Linapuni Elementary
- 168 Lt. Col. Horace Meek Hickam Elementary
- 169 Ma'ema'e Elementary
- 170 Ma'ili Elementary
- 171 Major General William R. Shafter Elementary
- 172 Makaha Elementary
- 173 Makakilo Elementary
- 174 Makalapa Elementary
- 175 Manana Elementary
- 176 Mauka Lani Elementary
- 177 Maunawili Elementary
- 178 Mayor John H. Wilson Elementary
- 179 Mayor Joseph J. Fern Elementary
- 180 Mililani High
- 181 Mililani 'Ike Elementary
- 182 Mililani Middle
- 183 Mililani Uka Elementary
- 184 Mililani Waena Elementary
- 185 Moanalua Elementary
- 186 Moanalua High
- 187 Mokapu Elementary
- 188 Mokulele Elementary
- 189 Momilani Elementary
- 190 Myron B. Thompson Academy New Century Public Charter School
- 191 Nanakuli Elementary
- 192 Noelani Elementary
- 193 Nu'uuanu Elementary
- 194 Olomana



## 120 TEACHERS TO BE TRAINED FROM THE FOLLOWING STATEWIDE CANDIDATE SCHOOLS

- 195 Palisades Elementary
- 196 Palolo Elementary
- 197 Pauoa Elementary
- 198 Pearl City Elementary
- 199 Pearl City Highlands Elementary
- 200 Pearl Harbor Elementary
- 201 Pearl Harbor Kai Elementary
- 202 Pohakea Elementary
- 203 President Abraham Lincoln Elementary
- 204 President Theodore Roosevelt High
- 205 Prince Jonah Kuhio Elementary
- 206 Princess Miriam K. Likelike Elementary
- 207 Princess Victoria Ka'iulani Elementary
- 208 Pu'ohala Elementary
- 209 Pu'uhale Elementary
- 210 Queen Ka'ahumanu Elementary
- 211 Red Hill Elementary
- 212 Reverend Benjamin Parker Elementary

### **Oahu continued...**

- 213 Robert Louis Stevenson Middle
- 214 Royal School
- 215 Salt Lake Elementary
- 216 Sergeant Samuel K. Solomon Elementary
- 217 Sunset Beach Elementary
- 218 University Laboratory School
- 219 Voyager Public Charter School
- 220 Wahiawa Elementary
- 221 Wahiawa Middle
- 222 Waiahole Elementary
- 223 Wai'alaie Elementary Public Charter School
- 224 Waialua Elementary
- 225 Waialua High & Intermediate
- 226 Wai'anae Elementary
- 227 Wai'anae High
- 228 Waiau Elementary
- 229 Waikele Elementary
- 230 Waimalu Elementary
- 231 Waimanalo Elementary & Intermediate
- 232 Waipahu High
- 233 William P. Jarrett Middle



# Island Energy Inquiry

## 286 TEACHERS TRAINED EXISTING STATEWIDE SCHOOLS

### Hawai`i Island

#	School Name
1	Innovations Public Charter
2	Kalaniana'ole Intermediate
3	Keaau Middle
4	Konawaena Middle
5	Laupahoehoe Community Public High
6	Ke Kula Maui Ola Hawai'i 'O Nāwahīokalani'ōpu'u

### Kauai

7	Kapa`a High
8	Kapa`a Middle

### Lanai

9	Lana`i High & Elementary
---	--------------------------

### Maui

#	School Name
10	Iao School
11	Kahului Elementary
12	Kamalii Elementary
13	Kamehameha Schools Maui
14	Kihei Charter High School
15	Kihei Charter Middle
16	King Kekaulike High
17	Lahainaluna High
18	Lokelani Intermediate
19	Maui High
20	Maui Waena Intermediate
21	Pukalani Elementary
22	St. Anthony Jr-Sr High

### Molokai

#	School Name
23	Molokai High
24	Molokai Middle, 'O Hina I ka Malama, Hawaiian Language Immersion



# Island Energy Inquiry

## 286 TEACHERS TRAINED EXISTING STATEWIDE SCHOOLS

### Oahu

#	<u>School Name</u>
25	`Iolani School
26	Academy of the Pacific
27	Ewa Makai Middle
28	Farrington High
29	Hale Kula Elementary
30	Highlands Intermediate
31	Jefferson Elementary
32	Ka'ewai Elementary
33	Kahuku High and Intermediate
34	Kailua High
35	Kaimuki High
36	Kaimuki Middle
37	Kaiser High
38	Kalakaua Middle
39	Kalani High
40	Kalei'opu'u Elementary
41	Kamiloiki Elementary
42	Kaneohe Elementary
43	Kapolei High
44	Kawananakoa Middle
45	Laie Elementary
46	Manoa Elementary
47	McKinley High
48	Mililani Mauka Elementary
49	Moanalua High
50	Moanalua Middle
51	Nanaikapono Elementary
52	Nanakuli High and Intermediate
53	Niu Valley Middle
54	Pearl City High
55	Pearl Ridge Elementary
56	Punahou School
57	Radford High



# Island Energy Inquiry

## 286 TEACHERS TRAINED EXISTING STATEWIDE SCHOOLS

- 58 Saint Francis
- 60 Waianae Intermediate
- 61 Waikiki Elementary
- 62 Waipahu Elementary
- 63 Waipahu High
- 64 Waipahu Intermediate
- 65 Washington Middle
- 66 Wheeler Elementary
- 67 Wheeler Middle

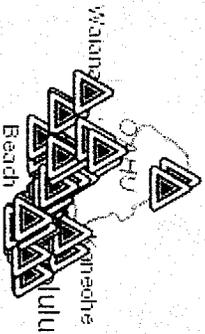


# Attachment 2a

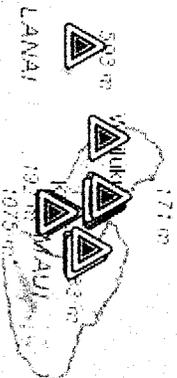
477 m 306 m 152 m  
KAUAI  
HAWAII



# Island Energy Inquiry



MOLOKAI



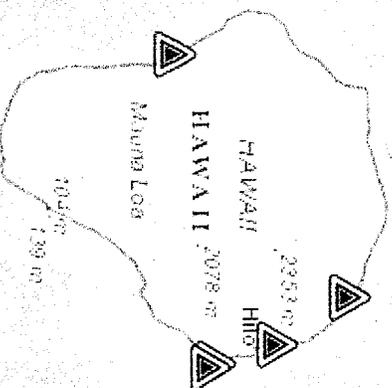
KAHOOLAWE

# 60 EXISTING SCHOOLS

# STATEWIDE

# 286 TEACHERS

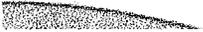
# TRAINED



# MEDB's Island Energy Inquiry™

## Curriculum at a Glance

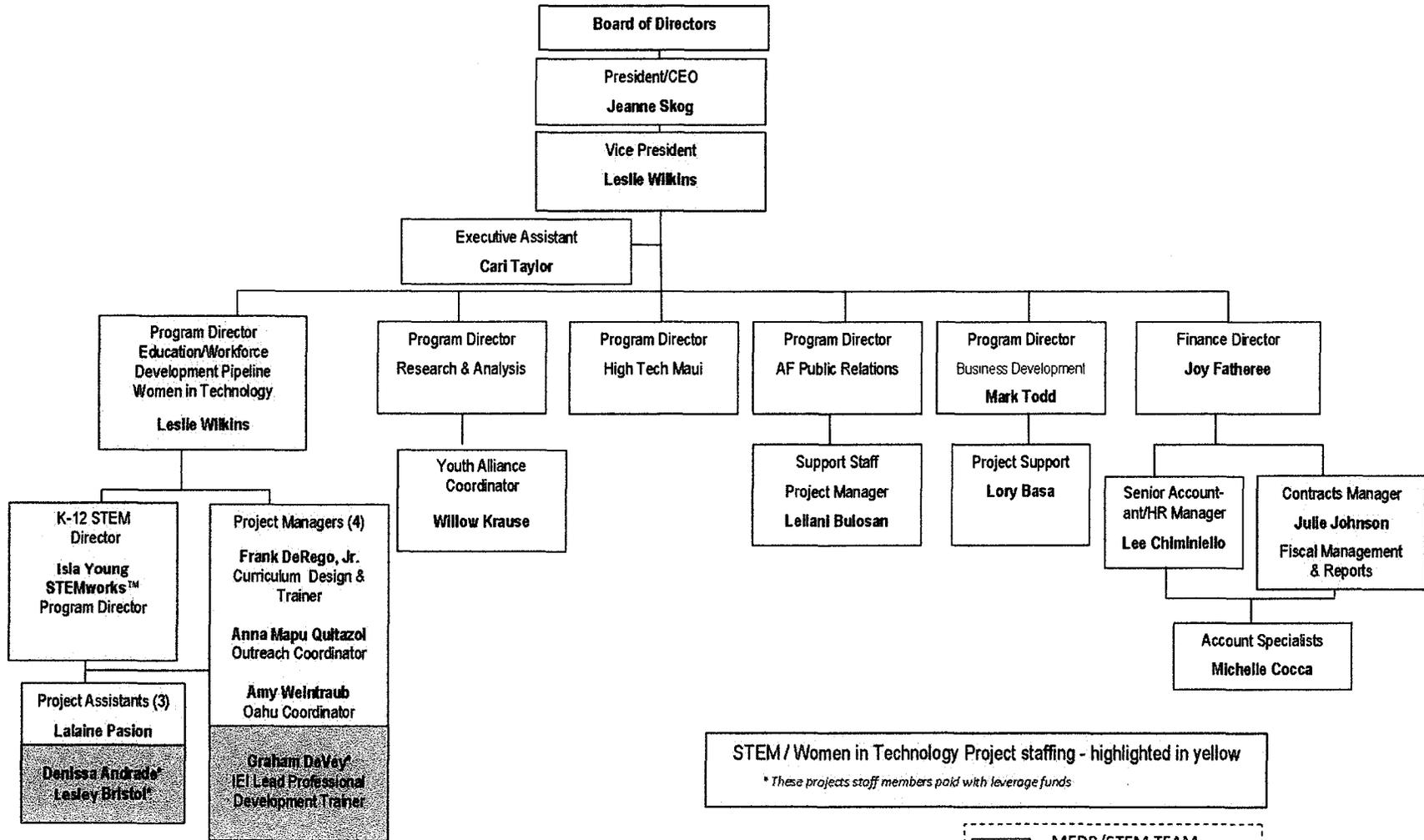


Grade Level	Unit Title	Essential Question	Unit Lessons	Primary HCPS III Science Benchmark Addressed*
5	Solar Thermal Solutions 	How can solar thermal energy impact Hawai'i energy sustainability?	<ol style="list-style-type: none"> <li>1. Solar Radiant Energy Transfer</li> <li>2. Cooking by the Sun</li> <li>3. Solar Hot Water Heating</li> <li>4. Hawai'i Energy Use</li> <li>5. Solar Thermal Outreach</li> </ol>	<b>Benchmark SC.5.6.2</b> Describe ways that heat can be transferred from one object to another
6	Solar Electricity with Photovoltaics 	How can PV solar energy impact Hawai'i energy sustainability?	<ol style="list-style-type: none"> <li>1. Photovoltaic Cell Inquiry</li> <li>2. School PV System Inquiry</li> <li>3. PV System Components</li> <li>4. PV System Design for School</li> </ol>	<b>Benchmark SC.6.6.2</b> Describe the different types of energy transformations
7	Island Energy Use 	How can energy conservation and efficiency impact Hawai'i energy sustainability?	<ol style="list-style-type: none"> <li>1. A Classroom Energy Audit</li> <li>2. Hawai'i Energy Use</li> <li>3. Energy Efficiency Strategies</li> <li>4. Energy Conservation Plan</li> </ol>	<b>Benchmark SC.7.3.3</b> Explain how biotic and abiotic factors affect the carrying capacity and sustainability of an ecosystem
8	Island Breezes Blowing Energy 	How can wind energy impact Hawai'i energy sustainability?	<ol style="list-style-type: none"> <li>1. Wind Power Basics</li> <li>2. The Earth's Wind Patterns</li> <li>3. Wind Energy Projects of Hawai'i</li> <li>4. Wind Turbine Design Inquiry</li> <li>5. Energy Sustainability for Hawai'i</li> </ol>	<b>Benchmark SC.8.8.6</b> Explain the relationship between density and convection currents in the ocean and atmosphere





Maui Economic Development Board, Inc. (MEDB)  
Organizational Chart



**STEM / Women in Technology Project staffing - highlighted in yellow**  
\* These projects staff members paid with leverage funds

**MEDB/STEM TEAM**  
Salaries paid with other funding

**MEDB/ IEI TEAM**  
\* Graham DeVey, Lesley Bristol, Denissa Andrade 25 % salary support included in this proposal budget. 75% of salaries funded by other sources.