

<b>REQUEST FOR COUNCIL ACTION</b> CITY OF SAN DIEGO	CERTIFICATE NUMBER (FOR COMPTROLLER'S USE ONLY) CC 300009015
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TO: CITY COUNCIL	FROM (ORIGINATING DEPARTMENT): Environmental Services	DATE: 5/5/2016
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SUBJECT: As-Needed Agreement with MRW & Associates, LLC for Energy Consultant Services

PRIMARY CONTACT (NAME, PHONE): Lorie Cosio-Azar,858-627-3552, MS 1101B	SECONDARY CONTACT (NAME, PHONE): Parita Ammerlahn, 858-492-5005, MS 1101B
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**COMPLETE FOR ACCOUNTING PURPOSES**

FUND	200224				
FUNCTIONAL AREA	OTHR-00000000-SH				
COST CENTER	2115110011				
GENERAL LEDGER ACCT	512059				
WBS OR INTERNAL ORDER					
CAPITAL PROJECT No.					
AMOUNT	\$1,000.00	0.00	0.00	0.00	0.00

FUND					
FUNCTIONAL AREA					
COST CENTER					
GENERAL LEDGER ACCT					
WBS OR INTERNAL ORDER					
CAPITAL PROJECT No.					
AMOUNT	0.00	0.00	0.00	0.00	0.00

**COST SUMMARY (IF APPLICABLE):**

**ROUTING AND APPROVALS**

CONTRIBUTORS/REVIEWERS:	APPROVING AUTHORITY	APPROVAL SIGNATURE	DATE SIGNED
Environmental Analysis	ORIG DEPT.	Sierra, Mario	05/31/2016
Equal Opportunity Contracting	CFO		
Financial Management	DEPUTY CHIEF	Villa, Ron	06/13/2016
Liaison Office	COO		
Comptroller	CITY ATTORNEY		
	COUNCIL PRESIDENTS OFFICE		

PREPARATION OF:     RESOLUTIONS     ORDINANCE(S)     AGREEMENT(S)     DEED(S)

1. Authorizing the Mayor, or his designee, to execute an agreement with MRW & Associates, LLC to provide As-Needed energy consulting services in the Environmental Services Department, Energy Conservation Program Fund, Fund 200224, in an amount not to exceed \$5,000,000; and

2. Authorizing the Chief Financial Officer to expend an amount not to exceed \$5,000,000 over 5 years from the Environmental Services Department, Energy Conservation Program Fund, Fund Number 200224, for the purpose of executing this agreement, contingent upon Council approval of the Annual Appropriation Ordinance for the

applicable fiscal year and upon the Chief Financial Officer first furnishing one or more certificates demonstrating that funds necessary for expenditure are, or will be, on deposit with the City Treasurer; and  
3. Authorizing the Chief Financial Officer to expend an amount not to exceed \$1,000 from the Environmental Services Department, Energy Conservation Program Fund, Fund 200224, for the purpose of executing this agreement and meeting the minimum contract requirements.

**STAFF RECOMMENDATIONS:**  
Adopt the resolutions.

**SPECIAL CONDITIONS (REFER TO A.R. 3.20 FOR INFORMATION ON COMPLETING THIS SECTION)**

**COUNCIL DISTRICT(S):** City-Wide

**COMMUNITY AREA(S):** City-Wide

**ENVIRONMENTAL IMPACT:** This activity is not a “project” as defined in CEQA Guidelines Section 15378 because it involves execution of a contract which, on its own accord, will not cause a significant environmental impact. As such, this activity is not subject to CEQA pursuant Section 15060(c)(3). This determination is predicated on Section 15004 of the guidelines, which provide direction to lead agencies on the appropriate timing for environmental review. The Project(s) for which this As-Needed contract is intended will require preparation of an environmental document in accordance with State CEQA Guidelines.

**CITY CLERK  
INSTRUCTIONS:**

**COUNCIL ACTION**  
**EXECUTIVE SUMMARY SHEET**  
CITY OF SAN DIEGO

DATE: 5/5/2016

ORIGINATING DEPARTMENT: Environmental Services

SUBJECT: As-Needed Agreement with MRW & Associates, LLC for Energy Consultant Services

COUNCIL DISTRICT(S): City-Wide

CONTACT/PHONE NUMBER: Lorie Cosio-Azar/858-627-3552, MS 1101B

**DESCRIPTIVE SUMMARY OF ITEM:**

The City utilizes As-Needed Energy Consulting Agreements to perform various programs and projects in support of the Environmental Services Department. This item will retain the services of MRW & Associates, LLC to provide those energy consulting services on an as-needed, hourly fee basis. This contract shall not exceed \$5,000,000 and the contract has a maximum duration of five years.

**STAFF RECOMMENDATION:**

Adopt the resolutions.

**EXECUTIVE SUMMARY OF ITEM BACKGROUND:**

The City utilizes As-Needed Energy Consulting Services to perform energy efficiency consulting expertise for time sensitive City energy programs and initiatives, on an on-going basis. As-needed consultants provide professional services within specific disciplines for various projects and programs citywide. Because the amount of time required to develop a scope, advertise, schedule interviews, evaluate, and award a contract can be lengthy, the use of an as-needed contract proves very beneficial in the timely procurement of the required services.

Task orders are issued for projects on an as-needed basis based on workload and expertise required. This agreement will retain the services of an energy consultant to provide professional consulting services on an as-needed, hourly fee basis, or a fixed fee per task basis. The maximum contract cost shall not exceed \$5,000,000 and the contract has a maximum duration of five years.

In February 2016 the City advertised a Request for Proposals (RFP) through PlanetBids, and five firms responded successfully to the advertisement. Based on their responses to the RFP, qualifications and experience, past experience, Equal Opportunity Contracting, and hourly billing rates, MRW & Associates, LLC proved to be the most qualified.

This agreement will provide energy consulting services for various projects and programs related to energy efficiency. These may include services related to support the City's interests in California Public Utilities Commission (CPUC) proceedings, and preparing and presenting testimony in San Diego Gas and Electric (SDG&E) General Rate Case applications at CPUC. These services may also include analyses of financially beneficial long-term strategies for managing landfill gas and cogeneration operations at the Miramar Landfill and North City Water Reclamation Plant, supporting the City's existing solar installations through advocacy before the CPUC, grant development, advising the City as to the economics of additional solar

development, advising the City in its management of the tariff rate schedules for its electric and gas accounts, and reviews of studies involving Community Choice Aggregation.

**CITY STRATEGIC PLAN GOAL(S)/OBJECTIVE(S):**

Goal #3: Create and sustain a resilient and economically prosperous City

Objective #1: Create dynamic neighborhoods that incorporate mobility, connectivity and sustainability.

Objective #4: Prepare and respond to climate change

**FISCAL CONSIDERATIONS:**

The City agrees to issue a task order(s) with the minimum aggregate value of \$1,000 to MRW & Associates, LLC. Funding for this minimum guaranteed amount of \$1,000 from the Environmental Services Department, Energy Conservation Program Fund, Fund 200224, solely and exclusively for consulting services under the agreement. The maximum contract amount shall not exceed \$5,000,000. Funding for future tasks will be identified by the department requiring these services.

**EQUAL OPPORTUNITY CONTRACTING INFORMATION (IF APPLICABLE):**

This agreement is subject to the City's Equal Employment Opportunity Outreach Program (San Diego Ordinance No. 18173, Section 22.2701 through 22.2708) and Non-Discrimination Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

**PREVIOUS COUNCIL and/or COMMITTEE ACTION:**

This action is scheduled to be heard by the Environment Committee on June 23, 2016.

**COMMUNITY PARTICIPATION AND PUBLIC OUTREACH EFFORTS:**

City staff and the consultant will work with the communities as applicable for projects receiving services by this agreement.

**KEY STAKEHOLDERS AND PROJECTED IMPACTS:**

All sectors of San Diego will benefit from the gains in energy efficiency and conservation, as well as the associated reductions in greenhouse gas emissions.

Sierra, Mario

Originating Department

Villa, Ron

Deputy Chief/Chief Operating Officer

DOCKET SUPPORTING INFORMATION  
CITY OF SAN DIEGO  
EQUAL OPPORTUNITY CONTRACTING PROGRAM EVALUATION

DATE:  
June 6, 2016

SUBJECT: As-Needed Agreement with MRW & Associates, LLC for Energy Consultant Services

**GENERAL CONTRACT INFORMATION**

Recommended Consultant: MRW & Associates, LLC.. (Not Certified, M-Cauc.)

**Amount of this Action:** \$ 5,000,000.00 (Not to Exceed)

**Funding Source:** City of San Diego

**Goals:** 20% Voluntary

**SUBCONSULTANT PARTICIPATION**

	<b><u>This Action</u></b>	<b><u>Percent</u></b>
A SWB Engineering. (WBE, F Cauc.)	\$ 1,250,000.00	25.00%
Tierra Resource Consultants. (Not Certified, M Cauc.)	\$ 360,000.00	7.20%
<b>Total Certified Participation</b>	<b>\$ 1,200,000.00</b>	<b>25.00%</b>
<b>Total Non-Certified Participation</b>	<b>\$ 360,000.00</b>	<b>7.20%</b>
<b>Total Subcontractor Participation</b>	<b>\$ 1,610,000.00</b>	<b>32.20%</b>

**EQUAL EMPLOYMENT OPPORTUNITY COMPLIANCE**

Equal Opportunity Required.

MRW & Associates, LLC submitted a Work Force Report for their Alameda County employees dated, February 16, 2016 indicating 9 employees in their Administrative Work Force.

The firm has fewer than 15 employees in their Administrative Work Force and therefore, is exempt from category goals.

This agreement is subject to the City's Equal Employment Opportunity Outreach Program (San Diego Ordinance No. 18173, Section 22.2701 through 22.2708) and Non-Discrimination in Contracting Ordinance (San Diego Municipal Code Sections 22.3501 through 22.3517).

**ADDITIONAL COMMENTS**

(10069820-16-A)

EB



THE CITY OF SAN DIEGO

SUBMIT

# Request for Human Resources Approval for Purchase Requisition (Contracting Out Review Request Form)

Requesting Department: Environmental Services Department

Vendor Name: TBD

WBS No. or Project Title: As-Needed Energy Consultant

Purchase Requisition # (if available): TBD

Department Contact: Parita Ammerlahn

Date of Request: 02/10/2016

Contract Amount/Estimate: \$ \$5,000,000 - increased from \$1,250,000

Contract/Service Duration: 5 years

Litigation Services (if applicable):  Yes or  No

Deputy City Attorney Assigned/Contact: Fritz Ortlieb

P-Card Purchase (if applicable):  Yes or  No

*Does this change scope?*

NOTE: Please provide a description of the activity/services requested and what the request to contract out work will cover.  
(Please use plain language for the terms/definitions)

Please submit request to [HumanResources@sanidiego.gov](mailto:HumanResources@sanidiego.gov) or MS 56L

*Is this project Vist?*

Question	Department Response
What is the contract/service for? (Please be specific as to the scope of work)	The City requests to enter into an agreement with a consulting firm to provide services relating to energy issues facing the City of San Diego, including proceeding before the California Public Utilities Commission (CPUC) impacting the City of San Diego and the Southern California region.
What is the location of the project/service?	San Diego - citywide
Are City employees currently performing any of the work?	No
Do City employees currently have the expertise to do this work in-house? If not, why not?	No, this is a unique expertise (law & energy analysis combined) which currently is not available in the City.

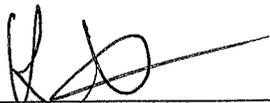
9/18

Will any City employees be displaced as a result of this contract/service?	No
If this is a renewal of an existing contract, how long have these services been contracted out?	N/A
Is this a Public Works project? * (i.e. construction, reconstruction or repair of City buildings, street or other facilities)	No
Is this a Tenant Improvement project? * (i.e. changes to the interior of a City facility, such as floors, wall coverings, shelves, ceilings, windows, partitions, etc.)	No
Was another Department contacted to determine if they can or do perform this service (i.e. Streets, Facilities, etc.)? If so, please attach communication. If not, why was another Department not contacted?	No, these services require expertise that is outside of City capabilities.  OK from M. Attached

*\*NOTE: If Public Works project (\$100,000 in labor costs or less) or Tenant Improvement project (\$250,000 in labor costs or less) requires HR review/approval. All other contracts require HR review/approval regardless of dollar amount. Remember – Departments cannot intentionally bundle services to avoid the threshold labor costs.*

**HUMAN RESOURCES DEPARTMENT USE ONLY**

Based on the Department's representation, this contract is **APPROVED** from a labor relations perspective.



Human Resources Department Liaison

5/19/12

Date



SUBMIT

RECEIVED

# Request for Human Resources Approval for Purchase Requisition (Contracting Out Review Request Form)

BY: .....

Requesting Department: Environmental Services Department

Vendor Name: TBD

WBS No. or Project Title: N/A

Purchase Requisition # (if available): TBD

Department Contact: Mastaneh Ashrafzadeh

Date of Request: 10/06/2015

Contract Amount/Estimate: \$ 1,250,000.00

Contract/Service Duration: 5 years

Litigation Services (if applicable):  Yes or  No  
Deputy City Attorney Assigned/Contact: N/A

P-Card Purchase (if applicable):  Yes or  No

*NOTE: Please provide a description of the activity/services requested and what the request to contract out work will cover.  
(Please use plain language for the terms/definitions)*

**Please submit request to [HumanResources@san-diego.gov](mailto:HumanResources@san-diego.gov) or MS 56L**

Question	Department Response
What is the contract/service for? (Please be specific as to the scope of work)	City needs to enter into an agreement with a consulting firm to provide services relating to energy issues facing the City of San Diego, including proceeding before the California Public Utilities Commission (CPUC) impacting the City of San Diego and Southern California region.
What is the location of the project/service?	Citywide
Are City employees currently performing any of the work?	No.
Do City employees currently have the expertise to do this work in-house? If not, why not?	No. this is a unique expertise (law & energy analysis combined) which currently is not available in the City.

Will any City employees be displaced as a result of this contract/service?	No.
If this is a renewal of an existing contract, how long have these services been contracted out?	N/A
Is this a Public Works project? * (i.e. construction, reconstruction or repair of City buildings, street or other facilities)	No.
Is this a Tenant Improvement project? * (i.e. changes to the interior of a City facility, such as floors, wall coverings, shelves, ceilings, windows, partitions, etc.)	No.
Was another Department contacted to determine if they can or do perform this service (i.e. Streets, Facilities, etc.)? If so, please attach communication. If not, why was another Department not contacted?	No

*\*NOTE: If Public Works project (\$100,000 in labor costs or less) or Tenant Improvement project (\$250,000 in labor costs or less) requires HR review/approval. All other contracts require HR review/approval regardless of dollar amount. Remember – Departments cannot intentionally bundle services to avoid the threshold labor costs.*

**HUMAN RESOURCES DEPARTMENT USE ONLY**

Based on the Department's representation, this contract is  **APPROVED** from a labor relations perspective.

\_\_\_\_\_  
Human Resources Department Liaison

*WJ*

*10/7/15*

\_\_\_\_\_  
Date

## Holmberg, Pamela

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**From:** Cosio-Azar, Lorie  
**Sent:** Thursday, May 19, 2016 8:33 AM  
**To:** Holmberg, Pamela  
**Cc:** Ammerlahn, Parita  
**Subject:** FW: PR Request  
**Attachments:** HR approval for Energy Consultant.pdf; Request for Human Resources Approval of Consultant Services Energy Consu....pdf

Hi Pamela,

Here is our justification for the increase in the dollar amount. The scope did not change.

- Please provide a more thorough description of what work will be done by the vendor/contractor (i.e. describe acronyms, what a repair would consist of, etc.). What are the "services relating to energy issues"? What specific tasks? Does the change in dollar amount change the scope of this contract? Is this for an Energy Waver Expert?

This agreement will provide energy consulting services for various projects and programs related to energy efficiency. These may include services related to support the City's interests in California Public Utilities Commission (CPUC) proceedings, preparing and presenting testimony for the City in San Diego Gas and Electric (SDG&E) General Rate Case applications at CPUC, analyses of financially beneficial long-term strategies for managing landfill gas and cogeneration operations and the Miramar Landfill and North City Water Reclamation Plant, supporting the City's existing solar installations through advocacy before the CPUC and advising the City as to the economics of additional solar development and advising the City in its management of the tariff rate schedules for its electric and gas accounts, and reviews of studies involving Community Choice Aggregation. The change in dollar amount does not change the scope of the project, it has increased due to an updated cost estimate of anticipated services. This is not for an Energy Waver Expert.

Thank You!

**Lorie Cosio Azar**

Interim Deputy Director

City of San Diego

Environmental Services Department

T (858) 627-3352

C (858) 449-0406



*~ A world-class city for all ~*

### **CONFIDENTIAL COMMUNICATION**

This electronic mail message and any attachments are intended only for the use of the addressee(s) named above and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If you are not an intended recipient, or the employee or agent responsible for delivering this e-mail to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you received this e-mail message in error, please immediately notify the sender by replying to this message or by telephone. Thank you.

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**From:** Ammerlahn, Parita  
**Sent:** Wednesday, May 18, 2016 2:55 PM  
**To:** Cosio-Azar, Lorie <LCosioAzar@sandiego.gov>  
**Cc:** Adachi, Nancy <NAdachi@sandiego.gov>  
**Subject:** FW: PR Request

Hi Lorie,

Are you an appointing authority? We are updating the HR approval for MRW, because the estimated cost was only \$1.2M back before we advertised, and now it's \$5M. HR is requesting additional information, and my answer to them is in red. They need it from an appointing authority though, so will you forward this answer to them (after your review of course).

Parita

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**From:** Holmberg, Pamela  
**Sent:** Wednesday, May 18, 2016 2:02 PM  
**To:** Ammerlahn, Parita <PAmmmerlahn@sandiego.gov>  
**Subject:** PR Request

In order for the Human Resources Department to complete the review of the Department's Request for Human Resources Approval for Purchase Requisition (Contracting Out Review Request Form) to contract for as-needed Energy Consultant services, please provide an e-mail response from an Appointing Authority to address the following:

- Please provide a more thorough description of what work will be done by the vendor/contractor (i.e. describe acronyms, what a repair would consist of, etc.). What are the "services relating to energy issues"? What specific tasks? Does the change in dollar amount change the scope of this contract? Is this for an Energy Waver Expert?

This agreement will provide energy consulting services for various projects and programs related to energy efficiency. These may include services related to support the City's interests in California Public Utilities Commission (CPUC) proceedings, preparing and presenting testimony for the City in San Diego Gas and Electric (SDG&E) General Rate Case applications at CPUC, analyses of financially beneficial long-term strategies for managing landfill gas and cogeneration operations and the Miramar Landfill and North City Water Reclamation Plant, supporting the City's existing solar installations through advocacy before the CPUC and advising the City as to the economics of additional solar development and advising the City in its management of the tariff rate schedules for its electric and gas accounts, and reviews of studies involving Community Choice Aggregation. The change in dollar amount does not change the scope of the project, it has increased due to an updated cost estimate of anticipated services. This is not for an Energy Waver Expert.

Please note that until the requested information is provided, the Request is on hold.

For more information on contracting out, please see the memo on Protocols Update for Human Resources Department Review and Approval of Service Requisitions (Contracting Out Work) . If you have any questions, please contact the Human Resources Department at (619) 236-6313.

**Pam Holmberg**  
Confidential Secretary to Human Resources/Program Coordinator  
Human Resources Department  
City of San Diego  
1200 Third Avenue, Suite 1316

## Holmberg, Pamela

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**From:** Cathleen Higgins <chiggins@sdmea.org>  
**Sent:** Thursday, May 19, 2016 1:55 PM  
**To:** Holmberg, Pamela  
**Subject:** RE: Contracting Out Request

Looks fine. Thanks.

Cathleen Higgins  
San Diego Municipal Employees Association  
P: 858.300.3888 xtn 117  
F: 858.300.3898  
W: [www.sdmea.org](http://www.sdmea.org)

-----Original Message-----

**From:** Holmberg, Pamela [mailto:PHolmberg@sandiego.gov]  
**Sent:** Thursday, May 19, 2016 1:51 PM  
**To:** Cathleen Higgins  
**Subject:** Contracting Out Request

I am passing on this request from ESD for an As-Needed Energy Consultant. This is a change from the original \$1.25M to \$5M for a 5-year contract. The original request was approved last year by Victoria Davidson - I don't know if she had and conversation with you about the contact. Just want to make everything looks good. There is some added information on an email from the department.

Thank you



## ATTACHMENT

EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP)  
CONSULTANT CONTRACTOR REQUIREMENTS**I. City's Equal Opportunity Commitment.**

The City of San Diego (City) promotes equal employment and subcontracting opportunities. The City is committed to ensuring that taxpayer dollars spent on public contracts are not paid to businesses that practice discrimination in employment or subcontracting. The City encourages all companies seeking to do business with the City to share this commitment.

*City contractors must submit the required EOCP documentation indicated below with their proposals. Contractors who fail to provide the required EOCP documentation are considered non-responsive.*

**II. Definitions.**

**Minority Business Enterprise (MBE):** a certified business which is at least fifty-one percent (51%) owned by African Americans, American Indians, Asians, Filipinos, Latinos, or a combination and whose management and daily operation is controlled by one or more members of the identified ethnic groups. In the case of a publicly-owned business, at least fifty-one percent (51%) of the stock must be owned by, and the business operated by, one or more members of the identified ethnic groups.

**Women Business Enterprise (WBE):** a certified business which is at least fifty-one percent (51%) owned by one or more women and whose management and daily operation is controlled by the qualifying party(ies). In the case of a publicly-owned business, at least fifty-one percent (51%) of the stock must be owned by, and the business operated by, one or more women.

**Disadvantaged Business Enterprise (DBE):** a certified business which is at least fifty-one percent (51%) owned and operated by one or more socially and economically disadvantaged individuals and whose management and daily operation is controlled by the qualifying party(ies). In the case of a publicly-owned business, at least fifty-one percent (51%) of the stock must be owned by, and the business operated by, socially and economically disadvantaged individuals.

**Disabled Veteran Business Enterprise (DVBE):** a certified business which is at least fifty-one percent (51%) owned by one or more veterans with a service related disability and whose management and daily operation is controlled by the qualifying party(ies). The firm shall be certified by the State of California's Department of General Services, Office of Small and Minority Business.

**Other Business Enterprise (OBE):** any business which does not otherwise qualify as Minority, Woman, Disadvantaged or Disabled Veteran Business Enterprise.

**Emerging Business Enterprise (EBE):** a business whose gross annual receipts do not exceed the amount set by the City Manager, and which meets all other criteria set forth in the regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for EBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace.

**Emerging Local Business Enterprise (ELBE):** a Local Business Enterprise that is also an Emerging Business Enterprise.

**Small Business Enterprise (SBE):** a business whose gross annual receipts do not exceed the amount set by the City Manager, and that meets all other criteria set forth in regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for SBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace. A business certified as a DVBE by the State of California, and that has provided proof of such certification to the City manager, shall be deemed to be an SBE.

**Small Local Business Enterprise (SLBE):** a Local Business Enterprise that is also a Small Business Enterprise.

**Local Business Enterprise (LBE):** a business that has both a principal place of business and a significant employment presence in the County of San Diego, and that has been in operation for twelve (12) consecutive months. This definition is subsumed within the definition of Small Local Business Enterprise.

**Principal Place of Business:** a location wherein a business maintains a physical office and through which it obtains no less than fifty percent (50%) of its overall customers or sales dollars.

**Significant Employee Presence:** no less than twenty-five percent (25%) of a business's total number of employees.

**Commercially Useful Function:** an SLBE/ELBE performs a commercially useful function when it is responsible for execution of the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the SLBE/ELBE shall also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quantity and quality, ordering the material, and installing (where applicable) and paying for the material itself.

To determine whether an SLBE/ELBE is performing a commercially useful function, an evaluation will be performed of the amount of work subcontracted, normal industry practices, whether the amount the SLBE/ELBE firm is to be paid under the contract is commensurate with the work it is actually performing and the SLBE/ELBE credit

claimed for its performance of the work, and other relevant factors. Specifically, an SLBE/ELBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of meaningful and useful SLBE/ELBE participation, when in similar transactions in which SLBE-ELBE firms do not participate, there is no such role performed.

### **III. Disclosure of Criminal Complaints.**

As part of its bid or proposal, Contractor shall provide (Attachment AA) to the City a list of all instances within the past ten (10) years where a complaint was filed or pending against Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, Subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

### **IV. Work Force Report and Equal Employment Opportunity Outreach Plan.**

A. Work Force Report. Contractors shall submit with their bid or proposal a Work Force Report for approval by the City. (Attachment BB). If the City determines that there are under representations when compared to County Labor Force Availability data, then the Contractor will also be required to submit an Equal Employment Opportunity (EEO) Plan to the City for approval.

B. Duty to Comply with Equal Opportunity Outreach Plan. A Contractor for whom an Equal Employment Opportunity Outreach Plan (EEOP) has been approved by the City shall use best efforts to comply with that EEOP.

### **V. Small and Local Business Program Requirements.** The City has adopted a Small and Local Business Enterprise (SLBE) program for Consultant Contracts. SLBE program requirements for Consultant Contracts are set forth Council Policy 100-10.

#### **A. SLBE and ELBE Participation for Contracts Valued Over \$50,000:**

1. For proposals ranking as qualified or acceptable, or any higher ranking, the City shall apply a maximum of 12 additional points for SLBE or ELBE participation. Points will be awarded as follows:
  - a. 20% participation – 5 points
  - b. 25% participation – 10 points
  - c. SLBE or ELBE as prime contractor – 12 points
2. All goods, services and consultant contracts valued over \$50,000 or more have a voluntary SLBE/ELBE participation goal of twenty percent (20%). For the

purposes of this Council Policy, the subcontractor requirement may be met by a provider of materials or supplies.

## VI. Demonstrated Commitment to Equal Opportunity.

The City seeks to foster a business climate of inclusion and to eliminate barriers to inclusion.

- A. Contractors are required to submit the following information with their bid or proposal:
  1. **Past Participation Levels** . Listing of Contractor's Subcontractor participation levels (Attachment DD) achieved on all private and public projects within the past three (3) years. Include name of project, type of project, value of project, Subcontractor firm's name, percentage of Subcontractor firm's participation, and identification of Subcontractor firm's ownership as a certified Small or Emerging Local Business Enterprise, Woman Business Enterprise, Disadvantaged Business Enterprise, Disabled Veteran Business Enterprise, or Other Business Enterprise. To receive points, provide valid proof of certification.
  2. **Equal Opportunity Employment** . Provide detailed written narrative of Contractor's strategies to recruit, hire, train and promote a diverse workforce. These efforts will be considered in conjunction with Contractor's *Workforce Report* as compared to the County's Labor Force Availability.
  3. **Community Activities** . Provide detailed written narrative of Contractor's current community activities such as membership and participation in local organizations, associations, scholarship programs, mentoring, apprenticeships, internships, community projects, charitable contributions and similar endeavors.
- B. In accordance with the City's Equal Opportunity Commitment, the City will consider the three factors described above as part of the RFP evaluation process.

## VII. Certification.

The City accepts certifications of MBE, WBE, DBE, or DVBE from the following certifying agencies:

- A. Current certification by the State of California Department of Transportation (CALTRANS) as DBE.
- B. Current MBE or WBE certification from the California Public Utilities Commission.
- C. DVBE certification is received from the State of California's Department of General Services, Office of Small and Minority Business.

D. Current certification by the City of Los Angeles as DBE, WBE or MBE.

Subcontractors' valid proof of certification status e.g., copy of MBE, WBE, DBE, or DVBE certification must be submitted with RFP.

**VIII. List of Attachments.**

AA. Contractors Certification of Pending Actions

BB. Work Force Report

CC. Subcontractors Past Participation List

**AA. CONTRACTORS CERTIFICATION OF PENDING ACTIONS**

As part of its bid or proposal, the Contractor must provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

- The undersigned certifies that within the past 10 years the Contractor has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers.
  
- The undersigned certifies that within the past 10 years the Contractor has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

DATE OF CLAIM	LOCATION	DESCRIPTION OF CLAIM	LITIGATION (Y/N)	STATUS	RESOLUTION/REMEDIAL ACTION TAKEN

Contractor Name: MRW & Associates, LLC

Certified By William A. Monsen Title Principal/EVP

  
 Name  
 Signature

Date 2/16/16

**USE ADDITIONAL FORMS AS NECESSARY**



City of San Diego

**EQUAL OPPORTUNITY CONTRACTING (EOC)**

1200 Third Avenue • Suite 200 • San Diego, CA 92101

Phone: (619) 236-6000 • Fax: (619) 236-5904

**BB. WORK FORCE REPORT**

The objective of the *Equal Employment Opportunity Outreach Program*, is to ensure that contractors doing business with the City, or receiving funds from the City, do not engage in unlawful discriminatory employment practices prohibited by State and Federal law. Such employment practices include, but are not limited to unlawful discrimination in the following: employment, promotion or upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training, including apprenticeship. Contractors are required to provide a completed *Work Force Report (WFR)*.

NO OTHER FORMS WILL BE ACCEPTED

**CONTRACTOR IDENTIFICATION**

Type of Contractor:  Construction  Vendor/Supplier  Financial Institution  Lessee/Lessor  
 Consultant  Grant Recipient  Insurance Company  Other

Name of Company: MRW & Associates, LLC

ADA/DBA: \_\_\_\_\_

Address (Corporate Headquarters, where applicable): 1814 Franklin Street, Suite 720City: Oakland County: USA State: CA Zip: 94612Telephone Number: ( 510 ) 834-1999 Fax Number: ( 510 ) 834-0918Name of Company CEO: David A. Howarth

Address(es), phone and fax number(s) of company facilities located in San Diego County (if different from above):

Address: None

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone Number: ( ) \_\_\_\_\_ Fax Number: ( ) \_\_\_\_\_

Type of Business: \_\_\_\_\_ Type of License: \_\_\_\_\_

The Company has appointed: \_\_\_\_\_

As its Equal Employment Opportunity Officer (EEOO). The EEOO has been given authority to establish, disseminate and enforce equal employment and affirmative action policies of this company. The EEOO may be contacted at:

Address: 1814 Franklin St. Suite 720, Oakland, CA 94612Telephone Number: ( 510 ) 834-1999 Fax Number: ( 510 ) 834-0918 One San Diego County (or Most Local County) Work Force - Mandatory Branch Work Force \*  Managing Office Work Force*Check the box above that applies to this WFR.**\*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*I, the undersigned representative of MRW & Associates, LLCAlameda, California (Firm Name)

(County)

(State)

hereby certify that information provided

herein is true and correct. This document was executed on this 16th day of February, 2016William A. Monsen  
(Authorized Signature)William A. Monsen

(Print Authorized Signature Name)

ATTACHMENT

NAME OF FIRM: MRW & Associates, LLC DATE: 2/16/16  
 OFFICE(S) or BRANCH(ES): 1814 Franklin St. Ste. 720 Oakland COUNTY: Alameda

I. INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- |  |  |
|--|--|
| (1) Black, African-American                          | (5) Filipino                                       |
| (2) Hispanic, Latino, Mexican-American, Puerto Rican | (6) White, Caucasian                               |
| (3) Asian, Pacific Islander                          | (7) Other ethnicity; not falling into other groups |
| (4) American Indian, Eskimo                          |  |

ADMINISTRATION OCCUPATIONAL CATEGORY	(1) Black		(2) Hispanic		(3) Asian		(4) American Indian		(5) Filipino		(6) White		(7) Other Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Management & Financial												3		
Professional				1		1						1	1	
A&E, Science, Computer														
Technical														
Sales														
Administrative Support		1											1	
Services														
Crafts														
Operative Workers														
Transportation														
Laborers*														

\*Construction laborers and other field employees are not to be included on this page

Totals Each Column		1		1		1						4	2	
--------------------	--	---	--	---	--	---	--	--	--	--	--	---	---	--

Grand Total All Employees	9
---------------------------	---

Indicate by Gender and Ethnicity the Number of Above Employees Who Are Disabled:

Disabled														
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Non-Profit Organizations Only:

Board of Directors														
Volunteers														
Artists														

ATTACHMENT

NAME OF FIRM: MRW & Associates, LLC DATE: 2/16/16  
 OFFICE(S) or BRANCH(ES): \_\_\_\_\_ COUNTY: Alameda

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- |  |  |
|--|--|
| (1) Black, African-American                          | (5) Filipino                                       |
| (2) Hispanic, Latino, Mexican-American, Puerto Rican | (6) White, Caucasian                               |
| (3) Asian, Pacific Islander                          | (7) Other ethnicity; not falling into other groups |
| (4) American Indian, Eskimo                          |  |

TRADE OCCUPATIONAL CATEGORY	(1) Black		(2) Hispanic		(3) Asian		(4) American Indian		(5) Filipino		(6) White		(7) Other Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Brick, Block or Stone Masons														
Carpenters														
Carpet, Floor & Tile Installers Finishers														
Cement Masons, Concrete Finishers														
Construction Laborers														
Drywall Installers, Ceiling Tile Inst														
Electricians														
Elevator Installers														
First-Line Supervisors/Managers														
Glaziers														
Helpers; Construction Trade														
Millwrights														
Misc. Const. Equipment Operators														
Painters, Const. & Maintenance														
Pipelayers, Plumbers, Pipe & Steam Fitters														
Plasterers & Stucco Masons														
Roofers														
Security Guards & Surveillance Officers														
Sheet Metal Workers														
Structural Metal Fabricators & Fitters														
Welding, Soldering & Brazing Workers														
Workers, Extractive Crafts, Miners														
Totals Each Column	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total All Employees	0													
Indicate By Gender and Ethnicity the Number of Above Employees Who Are Disabled:														



## CITY OF SAN DIEGO WORK FORCE REPORT

### HISTORY

The Work Force Report (WFR) is the document that allows the City of San Diego to analyze the work forces of all firms wishing to do business with the City. We are able to compare the firm's work force data to County Labor Force Availability (CLFA) data derived from the United States Census. CLFA data is a compilation of lists of occupations and includes the percentage of each ethnicity we track (Black, Hispanic, Asian, American Indian, Filipino) for each occupation. Currently, our CLFA data is taken from the 2010 Census. In order to compare one contractor to another, it is important that the data we receive from the Contractor firm is accurate and organized in the manner that allows for this fair comparison.

### WORK FORCE & BRANCH WORK FORCE REPORTS

When submitting a WFR, especially if the WFR is for a specific project or activity, we would like to have information about the firm's work force that is actually participating in the project or activity. That is, if the project is in San Diego and the work force is from San Diego, we want a San Diego County Work Force Report.<sup>1</sup> By the same token, if the project is in San Diego, but the work force is from another county, such as Orange or Riverside County, we want a Work Force Report from that county.<sup>2</sup> If participation in a San Diego project is by work forces from San Diego County and, for example, from Los Angeles County and from

Sacramento County, we ask for separate Work Force Reports representing your firm from each of the three counties.

### MANAGING OFFICE WORK FORCE

Equal Opportunity Contracting may occasionally ask for a Managing Office Work Force (MOWF) Report. This may occur in an instance where the firm involved is a large national or international firm but the San Diego or other local work force is very small. In this case, we may ask for both a local and a MOWF Report.<sup>1,3</sup> In another case, when work is done only by the Managing Office, only the MOWF Report may be necessary.<sup>3</sup>

### TYPES OF WORK FORCE REPORTS:

Please note, throughout the preceding text of this page, the superscript numbers one<sup>1</sup>, two<sup>2</sup> & three<sup>3</sup>. These numbers coincide with the types of work force report required in the example. See below:

- <sup>1</sup> One San Diego County (or Most Local County) Work Force – Mandatory in most cases
- <sup>2</sup> Branch Work Force \*
- <sup>3</sup> Managing Office Work Force

*\*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*

### **Exhibit A: Work Force Report Job categories-Administration**

Refer to this table when completing your firm's Work Force Report form(s).

#### **Management & Financial**

Advertising, Marketing, Promotions, Public Relations, and Sales Managers
Business Operations Specialists
Financial Specialists
Operations Specialties Managers
Other Management Occupations
Top Executives

#### **Professional**

Art and Design Workers
Counselors, Social Workers, and Other Community and Social Service Specialists
Entertainers and Performers, Sports and Related Workers
Health Diagnosing and Treating Practitioners
Lawyers, Judges, and Related Workers

## ATTACHMENT

Librarians, Curators, and Archivists
Life Scientists
Media and Communication Workers
Other Teachers and Instructors
Postsecondary Teachers
Primary, Secondary, and Special Education School Teachers
Religious Workers
Social Scientists and Related Workers

### **Architecture & Engineering, Science, Computer**

Architects, Surveyors, and Cartographers
Computer Specialists
Engineers
Mathematical Science Occupations
Physical Scientists

### **Technical**

Drafters, Engineering, and Mapping Technicians
Health Technologists and Technicians
Life, Physical, and Social Science Technicians
Media and Communication Equipment Workers

### **Sales**

Other Sales and Related Workers
Retail Sales Workers
Sales Representatives, Services
Sales Representatives, Wholesale and Manufacturing
Supervisors, Sales Workers

### **Administrative Support**

Financial Clerks
Information and Record Clerks
Legal Support Workers
Material Recording, Scheduling, Dispatching, and Distributing Workers
Other Education, Training, and Library Occupations
Other Office and Administrative Support Workers
Secretaries and Administrative Assistants
Supervisors, Office and Administrative Support Workers

### **Services**

Building Cleaning and Pest Control Workers
Cooks and Food Preparation Workers
Entertainment Attendants and Related Workers
Fire Fighting and Prevention Workers
First-Line Supervisors/Managers, Protective Service Workers
Food and Beverage Serving Workers
Funeral Service Workers
Law Enforcement Workers

Equal Opportunity Contracting  
 Consultant RFP  
 Revised 12/11/14  
 OCA Document No. 900305

Nursing, Psychiatric, and Home Health Aides
Occupational and Physical Therapist Assistants and Aides
Other Food Preparation and Serving Related Workers
Other Healthcare Support Occupations
Other Personal Care and Service Workers
Other Protective Service Workers
Personal Appearance Workers
Supervisors, Food Preparation and Serving Workers
Supervisors, Personal Care and Service Workers
Transportation, Tourism, and Lodging Attendants

### **Crafts**

Construction Trades Workers
Electrical and Electronic Equipment Mechanics, Installers, and Repairers
Extraction Workers
Material Moving Workers
Other Construction and Related Workers
Other Installation, Maintenance, and Repair Occupations
Plant and System Operators
Supervisors of Installation, Maintenance, and Repair Workers
Supervisors, Construction and Extraction Workers
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
Woodworkers

### **Operative Workers**

Assemblers and Fabricators
Communications Equipment Operators
Food Processing Workers
Metal Workers and Plastic Workers
Motor Vehicle Operators
Other Production Occupations
Printing Workers
Supervisors, Production Workers
Textile, Apparel, and Furnishings Workers

### **Transportation**

Air Transportation Workers
Other Transportation Workers
Rail Transportation Workers
Supervisors, Transportation and Material Moving Workers
Water Transportation Workers

**Laborers**

Agricultural Workers
Animal Care and Service Workers
Fishing and Hunting Workers
Forest, Conservation, and Logging Workers
Grounds Maintenance Workers
Helpers, Construction Trades
Supervisors, Building and Grounds Cleaning and Maintenance Workers
Supervisors, Farming, Fishing, and Forestry Workers

**Exhibit B: Work Force Report Job categories-Trade**

**Brick, Block or Stone Masons**

Brickmasons and Blockmasons
Stonemasons

Roofers
All other Construction Trades

**Carpenters**

**Carpet, floor and Tile Installers and Finishers**

Carpet Installers
Floor Layers, except Carpet, Wood and Hard Tiles
Floor Sanders and Finishers
Tile and Marble Setters

**Cement Masons, Concrete Finishers**

Cement Masons and Concrete Finishers
Terrazzo Workers and Finishers

**Construction Laborers**

**Drywall Installers, Ceiling Tile Inst**

Drywall and Ceiling Tile Installers
Tapers

**Electricians**

**Elevator Installers and Repairers**

**First-Line Supervisors/Managers**

First-line Supervisors/Managers of Construction Trades and Extraction Workers
---

**Glaziers**

**Helpers, Construction Trade**

Brickmasons, Blockmasons, and Tile and Marble Setters
Carpenters
Electricians
Painters, Paperhangers, Plasterers and Stucco
Pipelayers, Plumbers, Pipefitters and Steamfitters

**Millwrights**

Heating, Air Conditioning and Refrigeration Mechanics and Installers
Mechanical Door Repairers
Control and Valve Installers and Repairers
Other Installation, Maintenance and Repair Occupations

**Misc. Const. Equipment Operators**

Paving, Surfacing and Tamping Equipment Operators
Pile-Driver Operators
Operating Engineers and Other Construction Equipment Operators

**Painters, Const. Maintenance**

Painters, Construction and Maintenance
Paperhangers

**Pipelayers and Plumbers**

Pipelayers
Plumbers, Pipefitters and Steamfitters

**Plasterers and Stucco Masons**

**Roofers**

**Security Guards & Surveillance Officers**

**Sheet Metal Workers**

**Structural Iron and Steel Workers**

**Welding, Soldering and Brazing Workers**

Welders, Cutter, Solderers and Brazers
Welding, Soldering and Brazing Machine Setter, Operators and Tenders

**Workers, Extractive Crafts, Miners**













CITY OF SAN DIEGO

PURCHASING & CONTRACTING DEPARTMENT
1200 Third Avenue, Suite 200
San Diego, CA 92101-4195

REQUEST FOR PROPOSALS (RFP)/CONTRACT (COVER SHEET)
ADDENDUM C

Goods and Services: Furnish the City of San Diego with Energy Consultant Services
Solicitation Number: 10069820-16-A
Solicitation Issue Date: December 24, 2015
Proposal Due Date and Time (Closing Date): 2:00 p.m. Pacific Time on February 16, 2016
Contract Term: Five (5) years from Effective Date, as defined in Article I, Section 1.2 of the City's General Contract Terms and Provisions
City Contact: Maureen Medvedyev, Principal Procurement Specialist, Mmedvedyev@sandiego.gov

Questions and Comments Due: No later than January 12, 2016 at 2 p.m.

The City's Standard Payment Terms are Net 30 Days. Proposers may offer other payment terms (e.g., 2% 20 days) but such terms will not be considered in making the award decision. If different terms are offered, the City retains the option of making payment(s) based on these terms.

State delivery time: ASAP days after receipt of order. Discounted terms offered: % Days.

Duration of Offer: By submitting a proposal, the proposer guarantees that the offer is firm for ninety (90) calendar days commencing the day following the Closing Date. Proposer agrees to accept a resulting contract subject to the terms and conditions stated herein. If an award is not made during that period, proposer's offer shall automatically extend for another ninety (90) calendar days unless the proposer indicates otherwise in writing thirty (30) calendar days prior to the end of the first ninety (90) calendar day period to the City Contact.

Proposer William A. Monsen
Street Address 1814 Franklin Street, Suite 720
City Oakland, CA
Telephone No. 510-834-1999
E-Mail wam@mrwassoc.com

IF PROPOSER'S OFFER IS ACCEPTED BY THE CITY, THIS IS THE CONTRACT. Proposer is required to sign this document and return four (4) originals and four (4) copies of their proposal in sealed envelopes or cartons to the City Contact. Proposer shall also include an electronic copy of their proposal. Proposer agrees to furnish and deliver all goods and/or provide all services set forth or otherwise identified above subject to the terms and conditions specified herein. An original signature below is required. By signing below, the signer declares under penalty of perjury that she/he is authorized to sign this document and bind the proposer to the terms of this Contract.

Signature of Proposer's Authorized Representative: William A. Monsen, Principal & Member
Signature of the City of San Diego Purchasing Agent
Approved as to Form City Attorney
Includes fields for Print Name, Title, Signature, and Date for all three parties.

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FORMS

- Contractor Standards Pledge of Compliance
- Equal Opportunity Contracting forms including the Work Force Report and Contractors Certification of Pending Actions

ATTACHMENT

- General Contract Terms and Provisions Applicable To Goods, Services, and Consultant Contracts

## I. PROPOSAL SUBMISSION AND REQUIREMENTS

### A. PROPOSAL SUBMISSION

**1. Timely Proposal Submittal.** Proposals must be submitted as described herein in a sealed envelope to the Purchasing & Contracting Department (P&C) located at 1200 Third Avenue, Suite 200, San Diego, CA 92101. The Solicitation Number and Closing Date must be referenced in the lower left-hand corner of the outside of the envelope.

**1.1 Proposal Due Date.** Proposals must be received by the P&C reception desk prior to Closing Date indicated on the Cover Sheet. Faxed proposals will not be accepted. The City may consider a proposal that was mailed before the Closing Date if the City finds that acceptance of the proposal is in the City's best interests and there is no possibility of collusion or fraud in the procurement process.

**1.2 Pre-Proposal Conference.** No pre-proposal conference will be held for this RFP.

**1.2.1** Reserved.

**1.2.2** Reserved.

**1.3 Site Inspection.** No site inspection will be held for this RFP.

**1.3.1** Reserved.

**1.3.2** Reserved.

**1.4 Questions and Comments.** Written questions and comments must be electronically-mailed (e-mailed) to the City Contact identified on the Cover Sheet no later than the date specified on the Cover Sheet. Only written communications relative to the procurement shall be considered. E-mail is the only acceptable method for submission of questions. It is incumbent upon proposers to verify that the City has received their questions and/or comments. All questions will be answered in writing. The City will distribute questions and answers, without identification of the inquirer(s), to all proposers who are on record as having received this RFP. No oral communications can be relied upon for this RFP. Addenda will be issued addressing questions or comments that are determined by the City to cause a change to any part of this RFP.

**1.5 Contact with City Staff.** Unless otherwise authorized herein, proposers who are considering submitting a proposal in response to this RFP, or who submit a proposal in response to this RFP, are prohibited from communicating with City staff or evaluation committee members about this RFP from the date this RFP is issued until a contract is awarded.

**2. Proposal Format and Organization.** Unless electronically submitted, all proposals should be securely bound and must include the following items:

**Tab A - Submission of Information and Forms.** Proposers shall submit the following completed forms and provide the following information with their proposals:

**2.1** The completed and executed Cover Sheet.

**2.2** Exceptions requested by proposer, if any. If a proposer requests an exception, or exceptions, to the Specifications or the City's Contract, including the City's General Contract Terms and Provisions, the proposer must present written factual or legal justification for the request. Any exceptions to the Contract that have not been accepted by the City in writing are deemed rejected. The City, in its sole discretion, may accept some or all of proposer's exceptions, reject proposer's exceptions and deem the bid non-responsive, or award the Contract without proposer's proposed exceptions. The City will not consider exceptions addressed elsewhere in the proposal.

**2.3** The Contractor Standards Pledge of Compliance Form.

**2.4** Equal Opportunity Contracting Program (EOCP) Goods and Services Contractor Requirements.

**2.5** Reserved.

**2.6** Reserved.

**2.7** Reserved.

**2.8** Reserved.

**2.9** Reserved.

**Tab B - Executive Summary and Responses to Specifications.** Proposer shall provide the following information in the order outlined below:

**2.10** A title page.

**2.11** A table of contents.

**2.12** An executive summary, limited to one typewritten page, that provides a high-level description of the proposer's ability to meet the requirements of the RFP and the reasons the proposer believes itself to be best qualified to provide the identified services.

**Tab C - Cost/Price Proposal (if applicable).** Proposers shall submit a detailed cost proposal.

**3. Proposal Review.** Proposers are responsible for carefully examining the RFP, the Specifications, this Contract, and all documents incorporated into the Contract by reference before submitting a proposal. If selected for award of contract, proposer shall be bound by same unless the City has accepted proposer's exceptions, if any, in writing.

**4. Addenda.** The City may issue addenda to this RFP as necessary. All addenda are incorporated into the Contract. The proposer is responsible for determining whether addenda were issued prior to a proposal submission. Failure to respond to or properly address addenda may result in rejection of a proposal.

**5. Quantities.** The estimated quantities provided by the City are not guaranteed. These quantities are listed for informational purposes only. Quantities vary depending on the demands of the City. Any variations from the estimated quantities shall not entitle the proposer to an adjustment in the unit price or any additional compensation.

**6. Quality.** Unless otherwise required, all goods furnished shall be new and the best of their kind.

**6.1 Items Offered.** Proposer shall state the applicable trade name, brand, catalog, manufacturer, and/or product number of the required good, if any, in the proposal.

**6.2 Brand Names.** Any reference to a specific brand name in a solicitation is illustrative only and describes a component best meeting the specific operational, design, performance, maintenance, quality, or reliability standards and requirements of the City. Proposer may offer an equivalent or equal in response to a brand name referenced (Proposed Equivalent). The City may consider the Proposed Equivalent after it is subjected to testing and evaluation which must be completed prior to the award of contract. If the proposer offers an item of a manufacturer or vendor other than that specified, the proposer must identify the maker, brand, quality, manufacturer number, product number, catalog number, or other trade designation. The City has complete discretion in determining if a Proposed Equivalent will satisfy its requirements. It is the proposer's responsibility to provide, at their expense, any product information, test data, or other information or documents the City requests to properly evaluate or demonstrate the acceptability of the Proposed Equivalent, including independent testing, evaluation at qualified test facilities, or destructive testing.

**7. Modifications, Withdrawals, or Mistakes.** Proposer is responsible for verifying all prices and extensions before submitting a proposal.

**7.1 Modification or Withdrawal of Proposal Before Proposal Opening.** Prior to the Closing Date, the proposer or proposer's authorized representative may modify or withdraw the proposal by providing written notice of the proposal modification or withdrawal to the City Contact. While e-mail is permissible, telephonic withdrawals or modifications are not.

**7.2 Proposal Modification or Withdrawal of Proposal After Proposal Opening.** Any proposer who seeks to modify or withdraw a proposal because of the proposer's inadvertent computational error affecting the proposal price shall notify the City Contact identified on the Cover Sheet no later than three working days following the Closing Date. The proposer shall provide worksheets and such other information as may be required by the City to substantiate the claim of inadvertent error. Failure to do so may bar relief and allow the City recourse from the proposal surety. The burden is upon the proposer to prove the inadvertent error. If, as a result of a proposal modification, the proposer is no longer the apparent successful proposer, the City will award to the newly established apparent successful proposer. The City's decision is final.

**8. Incurred Expenses.** The City is not responsible for any expenses incurred by proposers in participating in this solicitation process.

**9. Public Records.** By signing this proposal, the proposer acknowledges that any information submitted in response to this RFP is a public record subject to disclosure unless the City determines that a specific exemption in the California Public Records Act (CPRA) applies. If the proposer submits information clearly marked confidential or proprietary, the City may protect such information and treat it with confidentiality to the extent permitted by law. However, it will be the responsibility of the proposer to provide to the City the specific legal grounds on which the City can rely in withholding information requested under the CPRA should the City choose to withhold such information. General references to sections of the CPRA will not suffice. Rather, the proposer must provide a specific and detailed legal basis, including applicable case law, that clearly establishes the requested information is exempt from the disclosure under the CPRA. If the proposer does not provide a specific and detailed legal basis for requesting the City to withhold proposer's confidential or proprietary information at the time of proposal submittal, City will release the information as required by the CPRA and proposer will hold the City, its elected officials, officers, and employees harmless for release of this information. It will be the proposer's obligation to defend, at proposer's expense, any legal actions or challenges seeking to obtain from the City any information requested

under the CPRA withheld by the City at the proposer's request. Furthermore, the proposer shall indemnify and hold harmless the City, its elected officials, officers, and employees from and against any claim or liability, and defend any action brought against the City, resulting from the City's refusal to release information requested under the CPRA which was withheld at proposer's request. Nothing in the Contract resulting from this proposal creates any obligation on the part of the City to notify the proposer or obtain the proposer's approval or consent before releasing information subject to disclosure under the CPRA.

**10. Right to Audit.** The City Auditor may access proposer's records as described in San Diego Charter section 39.2 to confirm contract compliance.

## **B. EVALUATION OF PROPOSALS**

**1. Award.** The City shall evaluate each responsive proposal to determine which proposal offers the City the best value consistent with the evaluation criteria set forth herein. The proposer offering the lowest overall price will not necessarily be awarded a contract.

**2. Sustainable Materials.** Consistent with Council Policy 100-14, the City encourages use of readily recyclable submittal materials that contain post-consumer recycled content.

### **3. Evaluation Process.**

**3.1 Process for Award.** A City-designated evaluation committee (Evaluation Committee) will evaluate and score all responsive proposals. The Evaluation Committee may require proposer to provide additional written or oral information to clarify responses. Upon completion of the evaluation process, the Evaluation Committee will recommend to the Purchasing Agent that award be made to the proposer with the highest scoring proposal.

#### **3.2 Reserved.**

**3.3 Mandatory Interview/Oral Presentation.** The City may require proposers to interview and/or make an oral presentation if one or more proposals score within fifteen (15) points or less of the proposal with the highest score. Only the proposer with the highest scoring proposal and those proposers scoring within fifteen (15) points or less of the highest scoring proposal will be asked to interview and/or make an oral presentation. Interviews and/or oral presentations will be made to the Evaluation Committee in order to clarify the proposals and to answer any questions. The interviews and/or oral presentations will be scored as part of the selection process. The City will complete all reference checks prior to any oral interview. Additionally, the Evaluation Committee may require proposer's key personnel to interview. Interviews may be by telephone and/or in person. Multiple interviews may be required. Proposers are required to complete their oral presentation and/or interviews within seven (7) workdays after the City's request. Proposers should be prepared to discuss and substantiate any of the areas of the proposal submitted, as well as proposer's qualifications to furnish the subject goods and services. Proposer is responsible for any costs incurred for the oral presentation and interview of the key personnel.

**3.4 Discussions/Negotiations.** The City has the right to accept the proposal that serves the best interest of the City, as submitted, without discussion or negotiation. Contractors should, therefore, not rely on having a chance to discuss, negotiate, and adjust their proposals. The City may negotiate the terms of a contract with the winning proposer based on the RFP and the proposer's proposal, or award the contract without further negotiation.

**3.5 Inspection.** The City reserves the right to inspect the proposer's equipment and facilities to determine if the proposer is capable of fulfilling this Contract. Inspection will include, but not limited to, survey of proposer's physical assets and financial capability. Proposer, by signing the proposal agrees to the City's right of

access to physical assets and financial records for the sole purpose of determining proposer's capability to perform the Contract. Should the City conduct this inspection, the City reserves the right to disqualify a proposer who does not, in the City's judgment, exhibit the sufficient physical and financial resources to perform this Contract.

**3.6 Evaluation Criteria.** The following elements represent the evaluation criteria that will be considered during the evaluation process:

A. Responsiveness to the RFP. (10 Points)

1. Proposer addressed all of City's questions and provided all required forms.
2. Proposer's understanding of the project and ability to deliver as exhibited in the Executive Summary.
3. Proposer's previous experience in providing the goods or services requested, and proposer's creativity in approaching the proposed project.

B. Responses to Specifications. (40 Points)

C. Qualifications and Experience. (30 Points)

D. Past Performance as indicated in proposal. (13 Points)

E. Equal Opportunity Contracting Program (EOCP) Commitment to Equal Opportunity demonstrated by programs and hiring practices in employment and subcontracting. (12 Points)

F. Cost. (5 Points)

TOTAL = 110 points

G. Oral Interview / Presentation (Optional). (15 points)

GRAND TOTAL (110 points + 15 points (optional) = 125 points

## C. ANNOUNCEMENT OF AWARD

**1. Award of Contract.** The City will inform all proposers of its intent to award a Contract in writing.

**2. Obtaining Proposal Results.** No solicitation results can be obtained until the City announces the proposal or proposals best meeting the City's requirements. Proposal results may be obtained by: (1) e-mailing a request to the City Contact identified on the Cover Sheet or (2) visiting the P&C e-procurement system to review the proposal results. To ensure an accurate response, requests should reference the Solicitation Number. Proposal results will not be released over the phone.

**3. Multiple Awards.** City may award more than one contract by awarding separate items or groups of items to various proposers. Awards will be made for items, or combinations of items, which result in the lowest

aggregate price and/or best meet the City's requirements. The additional administrative costs associated with awarding more than one Contract will be considered in the determination.

#### **D. PROTESTS**

The City's protest procedures are codified in Chapter 2, Article 2, Division 30 of the San Diego Municipal Code (SDMC). These procedures provide unsuccessful proposers with the opportunity to challenge the City's determination on legal and factual grounds. The City will not consider or otherwise act upon an untimely protest.

#### **E. SUBMITTALS REQUIRED UPON NOTICE AWARD**

The successful proposer is required to submit the following documents to P&C **within ten (10) business days** from the date on the Notice of Intent to Award letter:

**1. Insurance Documents.** Evidence of all required insurance, including all required endorsements, as specified in Article VII of the General Contract Terms and Provisions.

**2. Taxpayer Identification Number.** Internal Revenue Service (IRS) regulations require the City to have the correct name, address, and Taxpayer Identification Number (TIN) or Social Security Number (SSN) on file for businesses or persons who provide goods or services to the City. This information is necessary to complete Form 1099 at the end of each tax year. To comply with IRS regulations, the City requires each Contractor to provide a Form W-9 prior to the award of a Contract.

**3. Business Tax Certificate.** Unless the City Treasurer determines a business is exempt, all businesses that contract with the City must have a current business tax certificate.

**4. Reserved.**

**5. Reserved.**

**6. Reserved.**

The City may find the proposer to be non-responsive and award the Contract to the next highest scoring responsible, responsive proposer if the apparent successful proposer fails to timely provide the required information or documents.

## II. SPECIFICATIONS

**A. SCOPE OF WORK.** The City of San Diego Environmental Services Department is requesting proposals for a selection process to enter into an agreement with a consulting firm to provide as-needed professional energy consulting services supporting critical, time sensitive City energy programs and initiatives. Specifically, services are required to support the City of San Diego's interests in California Public Utilities Commission (CPUC) proceedings that may significantly impact municipal operations, as well as San Diego's residents and businesses. Services shall include, but not be limited to, preparing and presenting testimony for the City in San Diego Gas and Electric (SDG&E) General Rate Case applications at CPUC as well as other CPUC proceedings that affect the City's energy efficiency and distributed generation initiatives. Additionally, apart from regulatory support, energy economic evaluation services are required to support energy efficiency and renewable distributed generation programs and projects. These initiatives may include analyses and determinations of the most financially beneficial long-term strategies for managing landfill gas and cogeneration operations at the Miramar Landfill and the North City Water Reclamation Plant, where the City anticipates major new electric loads in conjunction with its wastewater recycling Pure Water program. Services shall also include supporting the City's existing solar installations through advocacy before the CPUC and advising the City as to the economics of additional solar development. Services shall also include advising the City in its management of the tariff rate schedules for all of its electric and gas accounts. **Finally, the scope of work shall include a review of any proposed Community Choice Aggregation study recommendations and impacts. In addition, the scope shall include as-needed support with any emerging energy related issues that need immediate attention.**

The following information shall be provided in Tab B in the proposal for evaluation:

- Proposer company/corporation organization chart and staffing profile, including education and years of tenure for staff and resumes for key personnel. Define the responsibilities and task areas these individuals will be charged with relative to this contract.
- Proposer's experience working with the City of San Diego or municipalities of similar size as it relates to the scope of work for this contract. Provide examples of key personnel's work similar in form and function to the scope of work in this contract.
- Proposer's knowledge of the City of San Diego's own electric and gas accounts, account tariffs, and energy program.
- Proposer's experience with preparing testimonies at California Public Utilities Commission.
- Proposer's understanding of the City's energy and climate action goals.
- Proposer's understanding of past and current California law and policy as it relates to energy and climate action goals.

**A. TASK ORDERS.** Professional services provided will be authorized via a written Task Order signed by both parties, the City and the successful proposer(s). The work defined in each Task Order will constitute a "Project". The cost for services may vary depending upon the amount of work estimated for a particular Project. A Statement of Work (SOW) will be provided to successful proposer(s) when the need for a new Project is identified. The successful proposer(s) will use the SOW as a tool for providing an estimate to the City for the required Task Order. If the City awarded contracts to multiple successful proposers that could potentially perform the services described in a Task order, then before authorizing a successful proposer to perform the services described in a Task Order, the City will first send each such successful proposer's authorized representative, via e-mail, facsimile, U.S. mail or an express mail service, a Task Order information request. The successful proposer will provide to the City, in its response to the Task Order information request, the scope, schedule, deliverables, compensation, and proposed staff for each task. The successful proposer's response to the Task Order information request will be evaluated based upon expertise, experience, capability of personnel, subcontractors on the Project, and the ability to complete the Project within the required timeframe and budget, taking into account the potential need for staff changes during the performance of the

the scope, schedule, deliverables, compensation, and proposed staff for each task. The successful proposer's response to the Task Order information request will be evaluated based upon expertise, experience, capability of personnel, subcontractors on the Project, and the ability to complete the Project within the required timeframe and budget, taking into account the potential need for staff changes during the performance of the Project. The successful proposer will be notified of Task Order acceptance or rejection via e-mail. The e-mail acceptance will be the authorization to perform the work. Any changes to the scope, schedule, deliverables or compensation must be agreed to, in advance, by written amendment to the Task Order.

Each contract awarded as a result of this RFP will have a total not to exceed amount for each term of the contract. In no case will the value of an individual Task Order or the cumulative total for all Task Orders on a given contract exceed the total not to exceed amount.

Projects often include work with short deadlines. Successful Proposer(s) must be able to start work per the Task Order(s) no later than fourteen (14) calendar days from notice from the City.

**C. KEY PERSONNEL.** Contractor shall not change the key personnel assigned to this contract without prior written approval of the Department Representative.

**D. DEPARTMENT REPRESENTATIVE.** The Department Representative for this Contract shall be identified in the Notice of Award letter and is responsible for overseeing and monitoring this Contract.

### III. PRICE SCHEDULE

#### A. Pricing.

##### 1. City's Estimated Need.

Provide a list of key personnel, their classification(s), task(s) on which they shall be assigned, and applicable hourly rates.

Staff Member	Classification / Expertise	Task Area	Hourly Rate

**2. Reserved.**

**3. Prices Submitted or Corrected.** All prices and notations must be written in ink or typed. Responses must be free of erasures. Corrections must be initialed in ink by the person signing the proposal.

**4. Reserved.**

**5. Fixed Price.** All prices shall be firm, fixed, fully burdened, FOB destination, and include any applicable delivery or freight charges, and any other costs required to provide the requirements as specified in this RFP.

**6. Taxes and Fees.** Taxes and applicable local, state, and federal regulatory fees should not be included in the price proposal. Applicable taxes and regulatory fees will be added to the net amount invoiced. The City is liable for state, city, and county sales taxes but is exempt from Federal Excise Tax and will furnish exemption certificates upon request. All or any portion of the City sales tax returned to the City will be considered in the evaluation of proposals.

**7. Escalation.** An escalation factor is not allowed unless called for in this RFP. If escalation is allowed, proposer must notify the City in writing in the event of a decline in market price(s) below the proposal price. At that time, the City will make an adjustment in the Contract or may elect to re-solicit.

**8. Unit Price.** Unless the proposer clearly indicates that the price is based on consideration of being awarded the entire lot and that an adjustment to the price was made based on receiving the entire proposal, any difference between the unit price correctly extended and the total price shown for all items shall be offered shall be resolved in favor of the unit price.

## IV. CONTRACT

**A. Contract Documents.** The following documents comprise the Contract between the City and Contractor: this RFP and Cover Sheet; the successful proposal; the Notice of Intent to Award; the City's written acceptance of exceptions or clarifications to the RFP, if any; and the City's General Contract Terms and Provisions.

**B. Contract Interpretation.** The Contract Documents completely describe the goods and/or services to be provided. Contractor will provide any goods and/or services that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result whether or not specifically called for or identified in the Contract Documents. Words or phrases which have a well-known technical or construction industry or trade meaning and are used to describe goods or services will be interpreted in accordance with that meaning unless a definition has been provided in the Contract Documents.

**C. Precedence.** In resolving conflicts resulting from errors or discrepancies in any of the Contract Documents, the Parties will use the order of precedence as set forth below. The document highest in the order of precedence controls. Inconsistent provisions in the Contract Documents that address the same subject, are consistent, and have different degrees of specificity, are not in conflict, and the more specific language will control. The order of precedence, from highest to lowest, is as follows:

- 1<sup>st</sup> This RFP and Cover Sheet
- 2<sup>nd</sup> The City's written acceptance of any exceptions to clarifications to the RFP, if any
- 3<sup>rd</sup> Specifications and any addenda thereto
- 4<sup>th</sup> Contractor's Pricing Page(s)
- 5<sup>th</sup> All sections of the RFP not identified above
- 6<sup>th</sup> City's General Contract Terms and Provisions

**D. Counterparts.** This Contract may be executed in counterparts which, when taken together, shall constitute a single signed original as though all Parties had executed the same page.

**E. Public Agencies.** Other public agencies as defined by California Government Code section 6500 may choose to use the terms of this Contract, subject to Contractor's acceptance. The City is not liable or responsible for any obligations related to a subsequent agreement between Contractor and another public agency.

## **2.2 Exceptions Requested**

MRW requests no exceptions to the proposed terms and conditions specified in the RFP.

**Proposal to Furnish the City of San Diego with Energy  
Consultant Services**

**Solicitation Number 10069820-16-A**

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MRW & Associates, LLC  
1814 Franklin Street, Suite 720  
Oakland, CA 94612

February 16, 2016

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# 1. Introduction

MRW & Associates, LLC (MRW) is pleased to present this proposal to provide the City of San Diego (City) with Energy Consultant Services as requested in Solicitation Number 10069820-16-A (Solicitation).

MRW has provided energy consulting services to the City of San Diego (City) since 1989. Over that period, MRW has provided expert witness support and advisory services on behalf of various departments of the City, including the Environmental Services Department, the Public Utilities Department, and the City Attorney. These activities include:

- MRW represented the City's interests before the California Public Utilities Commission (CPUC) by providing expert witness testimony, regulatory analysis, and negotiation support services in various General Rate Case proceedings, investigations, rulemakings, and cost recovery proceedings, resulting in significant cost savings to the City.
- MRW has provided technical and economic analysis and evaluation of energy-related projects being considered by the City, such as the City's landfill gas and cogeneration operations at the Miramar Landfill and the North City Water Reclamation Plant. MRW has also provided analysis and advice regarding the City's independent power program, including advising the City regarding sale of excess power from its Point Loma facility.

In addition to MRW's work on behalf of the City, MRW has extensive experience helping other clients assess the economic and regulatory feasibility of behind-the-meter solar and cogeneration projects to support "go-no go" decisions on investments. Also, MRW has been deeply involved in the assessment of the feasibility and risks related to Community Choice Aggregation (CCA). MRW has prepared feasibility studies of a number of potential CCAs and has analyzed and provided peer reviews of other feasibility studies in order to provide our clients with an understanding of potential risks and rewards associated with participation in CCAs. Furthermore, MRW has represented CCAs and other third-party providers of commodity electric service in numerous CPUC proceedings regarding exit fees, CCA fees, and other matters of concern to CCAs.

MRW has assembled a very strong team to provide the requested services to the City. In addition to the highly-qualified MRW staff that will work on this project, ASWB Engineering and Tierra Resource Consultants have agreed to act as subcontractors to MRW for this assignment, providing consulting expertise that complements MRW's own capabilities. ASWB, a woman-owned business enterprise, will provide bill review and tariff analysis to ensure that the City's electricity and natural gas bills are correct and that the City's accounts are taking service under the most favorable tariffs. Tierra Resource Consultants, a California registered small business, will provide the City with in-depth knowledge regarding energy efficiency program design, will assist the City with advocacy regarding energy efficiency issues at the CPUC, and will assist the City in development of the strategy, programs and administrative structures that might be required for a Regional Energy Network.

## Proposal to Furnish the City of San Diego with Energy Consultant Services

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As requested in the Solicitation, MRW's proposal consists of three major sections:

- **TAB A** includes the completed and executed Cover Sheet, the Contractor Standards Pledge of Compliance Form, and the Equal Opportunity Contracting Program Goods and Services Contractor Requirements form. MRW does not request any exceptions to the Solicitation or the form contract;
- **TAB B** presents MRW's Executive Summary and Responses to Specifications, including a title page, a table of contents, and the Executive Summary; and
- **TAB C** presents the detailed cost proposal.

MRW appreciates the opportunity to present this proposal to the City and looks forward to continuing to provide high quality energy consulting services to support the City's innovative energy program.

If you have any questions about this proposal, please feel free to contact me at (510) 834-1999 or to send me an e-mail to [wam@mrwassoc.com](mailto:wam@mrwassoc.com). We look forward to the opportunity to continue to work with the City of San Diego and to support its future energy initiatives.

## 2. Tab A

## 2.1 Completed and Executed Cover Sheet



**CITY OF SAN DIEGO**  
**PURCHASING & CONTRACTING DEPARTMENT**  
 1200 Third Avenue, Suite 200  
 San Diego, CA 92101-4195

**REQUEST FOR PROPOSALS (RFP)/CONTRACT (COVER SHEET)**  
**ADDENDUM C**

**Goods and Services:** Furnish the City of San Diego with Energy Consultant Services  
**Solicitation Number:** 10069820-16-A  
**Solicitation Issue Date:** December 24, 2015  
**Proposal Due Date and Time (Closing Date):** 2:00 p.m. Pacific Time on February 16, 2016  
**Contract Term:** Five (5) years from Effective Date, as defined in Article I, Section 1.2 of the City's General Contract Terms and Provisions  
**City Contact:** Maureen Medvedyev, Principal Procurement Specialist, Mmedvedyev@sandiego.gov

**Questions and Comments Due:** No later than January 12, 2016 at 2 p.m.

**The City's Standard Payment Terms are Net 30 Days.** Proposers may offer other payment terms (e.g., 2% 20 days) but such terms will not be considered in making the award decision. If different terms are offered, the City retains the option of making payment(s) based on these terms.

State delivery time: ASAP days after receipt of order. Discounted terms offered: \_\_\_\_\_% \_\_\_\_\_ Days.

**Duration of Offer:** By submitting a proposal, the proposer guarantees that the offer is firm for ninety (90) calendar days commencing the day following the Closing Date. Proposer agrees to accept a resulting contract subject to the terms and conditions stated herein. If an award is not made during that period, proposer's offer shall automatically extend for another ninety (90) calendar days unless the proposer indicates otherwise in writing thirty (30) calendar days prior to the end of the first ninety (90) calendar day period to the City Contact.

Proposer William A. Monsen  
 Street Address 1814 Franklin Street, Suite 720  
 City Oakland, CA  
 Telephone No. 510-834-1999  
 E-Mail wam@mrwassoc.com

**IF PROPOSER'S OFFER IS ACCEPTED BY THE CITY, THIS IS THE CONTRACT.** Proposer is required to sign this document and return four (4) originals and four (4) copies of their proposal in sealed envelopes or cartons to the City Contact. Proposer shall also include an electronic copy of their proposal. Proposer agrees to furnish and deliver all goods and/or provide all services set forth or otherwise identified above subject to the terms and conditions specified herein. An original signature below is required. By signing below, the signer declares under penalty of perjury that she/he is authorized to sign this document and bind the proposer to the terms of this Contract.

Signature of Proposer's Authorized Representative	Signature of the City of San Diego Purchasing Agent	Approved as to Form City Attorney
<u>William A. Monsen</u>		
Print Name	Print Name	Print Name
<u>Principal &amp; Member</u>		
Title	Title	Title
Signature	Signature	Signature
<u>February 12, 2016</u>		
Date	Date	Date

## **2.2 Exceptions Requested**

MRW requests no exceptions to the proposed terms and conditions specified in the RFP.

**2.3 Contractor Standards Pledge of Compliance Form**

**City of San Diego**  
**CONTRACTOR STANDARDS**  
**Pledge of Compliance**

The City of San Diego has adopted a Contractor Standards Ordinance (CSO) codified in section 22.3004 of the San Diego Municipal Code (SDMC). The City of San Diego uses the criteria set forth in the CSO to determine whether a bidder or proposer has the capacity to fully perform the contract requirements and the business integrity to justify the award of public funds. This completed Pledge of Compliance signed under penalty of perjury must be submitted with each bid and proposal. If an informal solicitation process is used, the bidder must submit this completed Pledge of Compliance to the City prior to execution of the contract. All responses must be typewritten or printed in ink. If an explanation is requested or additional space is required, Respondents must provide responses on Attachment A to the Pledge of Compliance and sign each page. Failure to submit a signed and completed Pledge of Compliance may render the bid or proposal non-responsive. In the case of an informal solicitation, the contract will not be awarded unless a signed and completed Pledge of Compliance is submitted. A submitted Pledge of Compliance is a public record and information contained within will be available for public review except to the extent that such information is exempt from disclosure pursuant to applicable law.

**A. BID/PROPOSAL/SOLICITATION TITLE:**

10069820-16-A Furnish the City of San Diego with Energy Consultant Services  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**B. BIDDER/PROPOSER INFORMATION:**

MRW & Associates, LLC  
 \_\_\_\_\_  

Legal Name	DBA		
1814 Franklin Street, Suite 720	Oakland	CA	94612
Street Address	City	State	Zip
William A Monsen, Principal	510-834-1999	510-834-0918	
Contact Person, Title	Phone	Fax	

**C. OWNERSHIP AND NAME CHANGES:**

1. In the past five (5) years, has your firm changed its name?

Yes       No

If Yes, use Attachment "A" to list all prior legal and DBA names, addresses, and dates each firm name was used. Explain the specific reasons for each name change.

2. In the past five (5) years, has a firm owner, partner, or officer operated a similar business?

Yes       No

If Yes, use Attachment "A" to list names and addresses of all businesses and the person who operated the business. Include information about a similar business only if an owner, partner, or officer of your firm holds or has held a similar position in another firm.

**D. BUSINESS ORGANIZATION/STRUCTURE:**

Indicate the organizational structure of your firm. Fill in only one section on this page. Use Attachment "A" if more space is required.

Corporation Date incorporated: \_\_\_/\_\_\_/\_\_\_ State of incorporation: \_\_\_\_\_

List corporation's current officers: President: \_\_\_\_\_  
 Vice Pres: \_\_\_\_\_  
 Secretary: \_\_\_\_\_  
 Treasurer: \_\_\_\_\_

Is your firm a publicly traded corporation?                      **Yes**                      **No**

If **Yes**, name those who own ten percent (10 %) or more of the corporation's stocks:

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**Limited Liability Company** Date formed: 01 / 02 / 2009      State of formation: California

List names of members who own ten percent (10%) or more of the company:

William A. Monsen

Mark E. Fulmer

David A. Howarth

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**Partnership** Date formed: \_\_\_/\_\_\_/\_\_\_      State of formation: \_\_\_\_\_

List names of all firm partners:

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**Sole Proprietorship**                      Date started: \_\_\_/\_\_\_/\_\_\_

List all firms you have been an owner, partner or officer with during the past five (5) years. Do not include ownership of stock in a publicly traded company:

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**Joint Venture**                      Date formed: \_\_\_/\_\_\_/\_\_\_

List each firm in the joint venture and its percentage of ownership:

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**Note:** To be responsive, each member of a Joint Venture must complete a separate *Pledge of Compliance*.

**E. FINANCIAL RESOURCES AND RESPONSIBILITY:**

1. Is your firm preparing to be sold, in the process of being sold, or in negotiations to be sold?

Yes                       No

If **Yes**, use Attachment "A" to explain the circumstances, including the buyer's name and principal contact information.

2. In the past five (5) years, has your firm been denied bonding?

Yes                       No

If Yes, use Attachment "A" to explain specific circumstances; include bonding company name.

3. In the past five (5) years, has a bonding company made any payments to satisfy claims made against a bond issued on your firm's behalf or a firm where you were the principal?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances.

4. In the past five (5) years, has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances.

5. Within the last five years, has your firm filed a voluntary petition in bankruptcy, been adjudicated bankrupt, or made a general assignment for the benefit of creditors? No

6. Please provide the name of your principal financial institution for financial reference. By submitting a response to this Solicitation Contractor authorizes a release of credit information for verification of financial responsibility.

Name of Bank: Bank of San Francisco

Point of Contact: Katherine Zinsser

Address: 575 MARKET STREET #900 SAN FRANCISCO, CA 94105

Phone Number: 415-744-6702

7. By submitting a response to a City solicitation, Contractor certifies that he or she has sufficient operating capital and/or financial reserves to properly fund the requirements identified in the solicitation. At City's request, Contractor will promptly provide to City a copy of Contractor's most recent balance sheet and/or other necessary financial statements to substantiate financial ability to perform.

#### F. PERFORMANCE HISTORY:

1. In the past five (5) years, has your firm been found civilly liable, either in a court of law or pursuant to the terms of a settlement agreement, for defaulting or breaching a contract with a government agency?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances.

2. In the past five (5) years, has a public entity terminated your firm's contract for cause prior to contract completion?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances and provide principal contact information.

3. In the past five (5) years, has your firm entered into any settlement agreement for any lawsuit that alleged contract default, breach of contract, or fraud with or against a public entity?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances.

4. Is your firm currently involved in any lawsuit with a government agency in which it is alleged that your firm has defaulted on a contract, breached a contract, or committed fraud?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances.

5. In the past five (5) years, has your firm, or any firm with which any of your firm's owners, partners, or officers is or was associated, been debarred, disqualified, removed, or otherwise prevented from bidding on or completing any government or public agency contract for any reason?

Yes  No

If Yes, use *Pledge of Compliance Attachment "A"* to explain specific circumstances.

6. In the past five (5) years, has your firm received a notice to cure or a notice of default on a contract with any public agency?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances and how the matter resolved.

7. Performance References:

Please provide a minimum of three (3) references familiar with work performed by your firm which was of a similar size and nature to the subject solicitation within the last five (5) years.

Company Name: **See Attachment 1** \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

Company Name: \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

Company Name: \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date: \_\_\_\_\_

Contract Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

**G. COMPLIANCE:**

1. In the past five (5) years, has your firm or any firm owner, partner, officer, executive, or manager been criminally penalized or found civilly liable, either in a court of law or pursuant to the terms of a settlement agreement, for violating any federal, state, or local law in performance of a contract, including but not limited to, laws regarding health and safety, labor and employment, permitting, and licensing laws?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances surrounding each instance. Include the name of the entity involved, the specific infraction(s) or violation(s), dates of instances, and outcome with current status.

2. In the past five (5) years, has your firm been determined to be non-responsible by a public entity?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances of each instance. Include the name of the entity involved, the specific infraction, dates, and outcome.

**H. BUSINESS INTEGRITY:**

1. In the past five (5) years, has your firm been convicted of or found liable in a civil suit for making a false claim or material misrepresentation to a private or public entity?

Yes  No

If Yes, use Attachment "A" to explain specific circumstances of each instance. Include the entity involved, specific violation(s), dates, outcome and current status.

2. In the past five (5) years, has your firm or any of its executives, management personnel, or owners been convicted of a crime, including misdemeanors, or been found liable in a civil suit involving the bidding, awarding, or performance of a government contract?

Yes  No

If Yes, use *Pledge of Compliance Attachment "A"* to explain specific circumstances of each instance; include the entity involved, specific infraction(s), dates, outcome and current status.

3. In the past five (5) years, has your firm or any of its executives, management personnel, or owners been convicted of a federal, state, or local crime of fraud, theft, or any other act of dishonesty?

Yes  No

If Yes, use *Pledge of Compliance Attachment "A"* to explain specific circumstances of each instance; include the entity involved, specific infraction(s), dates, outcome and current status.

**I. WAGE COMPLIANCE:**

In the past five (5) years, has your firm been required to pay back wages or penalties for failure to comply with the federal, state or local prevailing, minimum, or living wage laws? Yes  No  If Yes, use Attachment "A" to explain the specific circumstances of each instance. Include the entity involved, the specific infraction(s), dates, outcome, and current status.

**J. STATEMENT OF SUBCONTRACTORS:**

Please provide the names and information for all subcontractors used in the performance of the proposed contract, and what portion of work will be assigned to each subcontractor. Subcontractors may not be substituted without the written consent of the City. Use Attachment "A" if additional pages are necessary. If no subcontractors will be used, please write "Not Applicable."

Company Name: See Attachment 2

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date \_\_\_\_\_

Sub-Contract Dollar Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

What portion of work will be assigned to this subcontractor: \_\_\_\_\_

Is the Subcontractor a certified SLBE, ELBE, MBE, DBE, DVBE, or OBE? (Circle One) YES  NO

If YES, Contractor must provide valid proof of certification with the response to the bid or proposal.

Company Name: \_\_\_\_\_

Contact Name and Phone Number: \_\_\_\_\_

Contact Email: \_\_\_\_\_

Address: \_\_\_\_\_

Contract Date \_\_\_\_\_

Sub-Contract Dollar Amount: \_\_\_\_\_

Requirements of Contract: \_\_\_\_\_

What portion of work will be assigned to this subcontractor: \_\_\_\_\_

Is the Subcontractor a certified SLBE, ELBE, MBE, DBE, DVBE, or OBE? (Circle One) YES  NO

If YES, Contractor must provide valid proof of certification with the response to the bid or proposal.

**K. STATEMENT OF AVAILABLE EQUIPMENT:**

List all necessary equipment to complete the work specified. Use *Pledge of Compliance Attachment "A"* if additional pages are necessary. In instances where the required equipment is not owned by the Contractor, Contractor shall explain how the equipment will be made available before the commencement of work. The City of San Diego reserves the right to reject any response when, in its opinion, the Contractor has not demonstrated he or she will be properly equipped to perform the work in an efficient, effective manner for the duration of the contract period.

If no equipment is necessary to complete the work specified, please write "Not Applicable."

Equipment Description: Not Applicable

Owned  Rented  Other  (explain below)

If Owned, Quantity Available: \_\_\_\_\_

Year, Make & Model: \_\_\_\_\_

Explanation: \_\_\_\_\_

Equipment Description: \_\_\_\_\_

Owned  Rented  Other  (explain below)

If Owned, Quantity Available: \_\_\_\_\_

Year, Make & Model: \_\_\_\_\_

Explanation: \_\_\_\_\_

Equipment Description: \_\_\_\_\_

Owned  Rented  Other  (explain below)

If Owned, Quantity Available: \_\_\_\_\_

Year, Make & Model: \_\_\_\_\_

Explanation: \_\_\_\_\_

**L. TYPE OF SUBMISSION:** This document is submitted as:

Initial submission of *Contractor Standards Pledge of Compliance*. Yes

Update of prior *Contractor Standards Pledge of Compliance* dated \_\_\_\_/\_\_\_\_/\_\_\_\_.

**Complete all questions and sign below.**

Under penalty of perjury under the laws of the State of California, I certify that I have read and understand the questions contained in this Pledge of Compliance, that I am responsible for completeness and accuracy of the responses contained herein, and that all information provided is true to the best of my knowledge and belief. I agree to provide written notice to the Purchasing Agent within five (5) business days if, at any time, I learn that any portion of this Pledge of Compliance. Failure to timely provide the Purchasing Agent with written notice is grounds for Contract termination.

I, on behalf of the firm, further certify that I and my firm will comply with the following provisions of SDMC section 22.3004:

- (a) I and my firm will comply with all applicable local, State and Federal laws, including health and safety, labor and employment, and licensing laws that affect the employees, worksite or performance of the contract.
- (b) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of receiving notice that a government agency has begun an investigation of me or my firm that may result in a finding that I or my firm is or was not in compliance with laws stated in paragraph (a).
- (c) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of a finding by a government agency or court of competent jurisdiction of a violation by the Contractor of laws stated in paragraph (a).
- (d) I and my firm will notify the Purchasing Agent in writing within fifteen (15) calendar days of becoming aware of an investigation or finding by a government agency or court of competent jurisdiction of a violation by a subcontractor of laws stated in paragraph (a).
- (e) I and my firm will cooperate fully with the City during any investigation and to respond to a request for information within ten (10) working days.

**Failure to sign and submit this form with the bid/proposal shall make the bid/proposal non-responsive. In the case of an informal solicitation, the contract will not be awarded unless a signed and completed *Pledge of Compliance* is submitted.**

William A. Monsen, Principal/EVP



2/16/16

Name and Title

Signature

Date

**City of San Diego  
CONTRACTOR STANDARDS  
Pledge of Compliance Attachment "A"**

Provide additional information in space below. Use additional Attachment "A" pages as needed. Each page must be signed. Print in ink or type responses and indicate question being answered.

I have read the matters and statements made in this Contractor Standards Pledge of Compliance and attachments thereto and I know the same to be true of my own knowledge, except as to those matters stated upon information or belief and as to such matters, I believe the same to be true. I certify under penalty of perjury that the foregoing is true and correct.

<u>William A. Monsen, Principal/EVP</u>		<u>2/16/16</u>
Print Name, Title	Signature	Date

## Supplier Profiles

Certification ID: 34874

**Legal Business Name**  
MRW & ASSOCIATES, LLC

**DBA Name 1**  
MRW & ASSOCIATES, LLC

**DBA Name 2**

**Phone**  
510/834-1999

**Fax**

**Address**  
1814 FRANKLIN ST #720  
OAKLAND  
CA 94612

**Email**  
hlm@mrwassoc.com

**No. Employees**  
9

**Business Types**  
Service

**Website**

**Service Areas**

Alameda , Alpine , Amador , Butte , Calaveras , Colusa , Contra Costa , Del Norte , El Dorado , Fresno , Glenn , Humboldt , Imperial , Inyo , Kern , Kings , Lake , Lassen , Los Angeles , Madera , Marin , Mariposa , Mendocino , Merced , Modoc , Mono , Monterey , Napa , Nevada , Orange , Placer , Plumas , Riverside , Sacramento , San Benito , San Bernardino , San Diego , San Francisco , San Joaquin , San Luis Obispo , San Mateo , Santa Barbara , Santa Clara , Santa Cruz , Shasta , Sierra , Siskiyou , Solano , Sonoma , Stanislaus , Sutter , Tehama , Trinity , Tulare , Tuolumne , Ventura , Yolo , Yuba

[View Keywords](#)

[View Classifications](#)

[View SB](#)

[Amend SB](#)

Apply as Disabled Veteran Business Enterprise (DVBE)

### Active Certifications ?

Certification Type	Application Date	Status	Status Date/Time	From	To	Cancel
SB	03/29/2012	Approved	03/29/12 12:00AM	05/29/2013	05/31/2017	

### Certification History ?

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eProcure

(<http://www.dgs.ca.gov/>)

(<http://www.fiscal.ca.gov/>)

[Search \(search.aspx\)](#) |

[Privacy Policy](#)

(<http://fiscal.ca.gov>

[/Privacy\\_Policy](#)

[/index.html](#))



(<https://www.facebook.com>

[/CaIDGS](#))

## **ATTACHMENT 1: PERFORMANCE REFERENCES**

### **References for MRW & Associates**

**Company Name: City of San Diego**

Contact Name and Phone Number: John Helminski; (858) 292-6402

Contact Email: [jhelminski@sandiego.gov](mailto:jhelminski@sandiego.gov)

Address: 9291 Topaz Way, San Diego CA 92123

Contract Date: Worked with Mr. Helminski between 2002 and 2009 and also since 2015

Contract Amount: \$585,798<sup>1</sup>

Requirements of Contract: Provide technical and economic analysis of energy issues for City of San Diego; also provided expert witness testimony and litigation support for client in rate and electric policy proceedings before the California Public Utilities Commission.

**Company Name: California Farm Bureau Federation**

Contact Name and Phone Number: Karen Norene Mills; (916) 561-5655

Contact Email: [Kmills@CFBF.com](mailto:Kmills@CFBF.com)

Address: 2300 River Plaza Drive, Sacramento, CA 95833

Contract Date: 2012 to present

Contract Amount: \$290,861<sup>2</sup>

Requirements of Contract: Provide analysis, expert witness testimony, and litigation support for client in rate and electric policy proceedings before the California Public Utilities Commission. Assisted client in developing innovative electric rate proposals that help to maintain members' competitive position.

---

<sup>1</sup> MRW fees for 2011-2015

<sup>2</sup> MRW fees for 2012-2015

**Company Name: Alliance for Retail Energy Markets and Direct Access Customer Coalition**

Contact Name and Phone Number: Dan Douglass; (818) 961-3001

Contact Email: douglass@energyattorney.com

Address: 4766 Park Granada, Suite 209, Calabasas, CA 91302

Contract Date: Have worked with Mr. Douglass since 2000

Contract Amount: \$633,097<sup>3</sup>

Requirements of Contract: Provide analysis, expert witness testimony, and litigation support for client in rate and electric policy proceedings before the California Public Utilities Commission. Provide client with strategy recommendations regarding responses to utility rate and cost allocation proposals.

**Company Name: Independent Energy Producers Association of California**

Contact Name and Phone Number: Steven Kelly; (916) 448-9499

Contact Email: steven@iepa.com

Address: 1215 K Street, Suite 900, Sacramento, CA 95814

Contract Date: Have worked with Mr. Kelly and IEP since 1994

Contract Amount: \$666,024<sup>4</sup>

Requirements of Contract: Provide analysis, expert witness testimony, and litigation support for client in resource planning, utility procurement, electric rate, and electric policy proceedings before the California Public Utilities Commission.

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<sup>3</sup> MRW fees for 2011-2015

<sup>4</sup> MRW fees for 2011-2015

**Company Name: City of Long Beach**

Contact Name and Phone Number: Chris Garner; (562) 570-2001

Contact Email: chris.garner@lbwater.org

Address: 2400 E. Spring Street, Long Beach, CA 90806

Contract Date: Have worked with Mr. Garner and City of Long Beach since 2004

Contract Amount: \$125,809<sup>5</sup>

Requirements of Contract: Provide analysis, expert witness testimony, and litigation support for client in natural gas rate design and natural gas policy before the California Public Utilities Commission.

**Company Name: Goodin, MacBride, Squeri, Day & Lamprey, LLP**

Contact Name and Phone Number: Brian Cragg, Esq.; (415) 392-7900

Contact Email: bcragg@goodinmacbride.com

Address: 505 Sansome Street, San Francisco CA 94111

Contract Date: Have worked with Mr. Cragg since 2008

Contract Amount: \$742,505<sup>6</sup>

Requirements of Contract: Work with attorney to provide analysis, expert witness testimony, and litigation support for client in electric resource planning and electric revenue requirements, revenue allocation, and rate design proceedings utility procurement before the California Public Utilities Commission.

---

<sup>5</sup> MRW fees for 2011-2015

<sup>6</sup> MRW fees related to work for Independent Energy Producers Association of California (see above) and Snow Summit for 2011-2015

**Company Name: South San Joaquin Irrigation District**

Contact Name and Phone Number: Steve Emrick; (209) 249-4613

Contact Email: semrick@ssjid.com

Address: 11011 E. Highway 120, Manteca, CA 95336

Contract Date: Have worked with Mr. Emrick and SSJID since 2010

Contract Amount: \$583,321<sup>7</sup>

Requirements of Contract: Provide and publicly support a broad range of technical and economic analyses to evaluate the feasibility of SSJID's proposal to develop a municipal electric utility and provide expert witness testimony in rate proceedings before the California Public Utilities Commission on issues pertaining to exit fees for departing load customers and appropriate rate levels. Analyses developed for SSJID include Community Choice Aggregation feasibility assessments, long-term utility rate and exit fee forecasts, load analyses, and wholesale power price forecasts.

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<sup>7</sup> MRW fees for 2011-2015

### **Reference for ASWB Engineers**

**Company Name: Southern California Edison**

Contact Name and Phone Number: Richard Pulliam / Senior Engineer; (626) 302-0635

Contact Email: Richard.Pulliam@SCE.com

Address: 1515 Walnut Grove Ave., Rosemead CA 91770

Contract Date: Have worked with SCE since the 1990s

Contract Amount: >\$500k in FY 2014

Requirements of Contract: Since at least 1989, and through 2015, Southern California Edison (SCE) has contracted with ASWB Engineering (previously ASW Engineering Management Consultants) to provide engineering services in many areas; from training their account representatives on energy efficiency issues, to identifying emerging technologies that have promise for reducing energy use to rate analysis. We have performed these and many more services for customers in the commercial, industrial, and residential sectors. ASWB has completed many rate analysis reviews for appropriateness upon request via CWA (Consultant Work Assignment) from SCE and similarly from many other utilities (Investor-Owned as well as Municipal) as well as individual entities.

### **Reference for Tierra Resource Consultants**

**Company Name: Arizona Public Service**

Contact Name and Phone Number: Maggie Gibbs; (602) 250-5444

Contact Email: Maggie.gibbs@aps.com

Address: 400 N. 5<sup>th</sup> Street, M.S. 8028, Phoenix AZ 85004

Contract Date: Have worked with APS since 2015

Contract Amount: \$550k

Requirements of Contract: In 2015 Arizona Public Service contracted with Tierra Resource Consultants to design and oversee the Solar Innovation Study, a pilot program designed to install solar, storage, energy efficiency, and demand response systems in 75 homes. This project will define the optimal blend of distributed energy resources and controls that will help utilities with load-shifting and flattening strategies needed to address grid management issues related to the

proliferation of customer side distributed energy generation projects. Upon completion in 2017, the project will define the nature of the residential customer market and the optimal technology suites and rate designs that will define the ideal solar home load shape, and also specify the customer side programs and interventions needed to achieve the desired load shape and associated revenue goals. (See attachment for more details regarding the Solar Innovation Study).

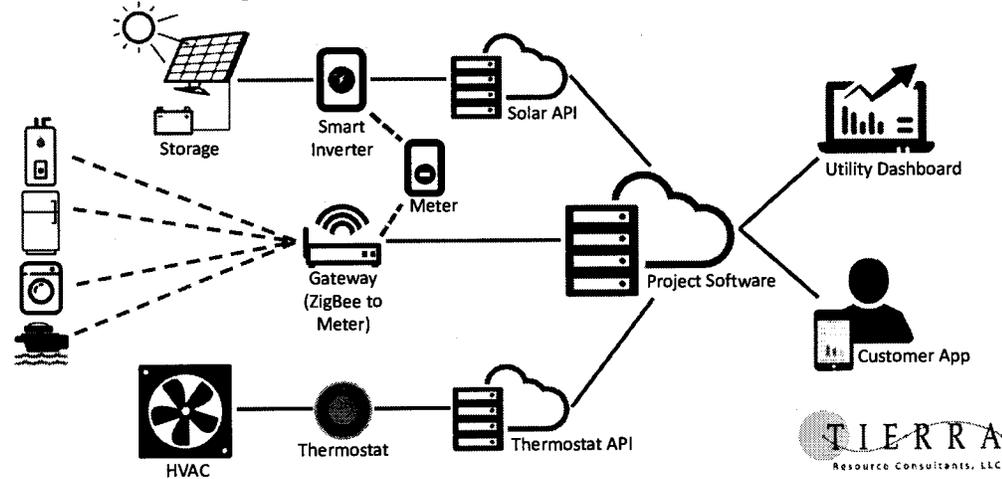
## ATTACHMENT: DESCRIPTION OF SOLAR INNOVATION STUDY

### Solar Innovation Study

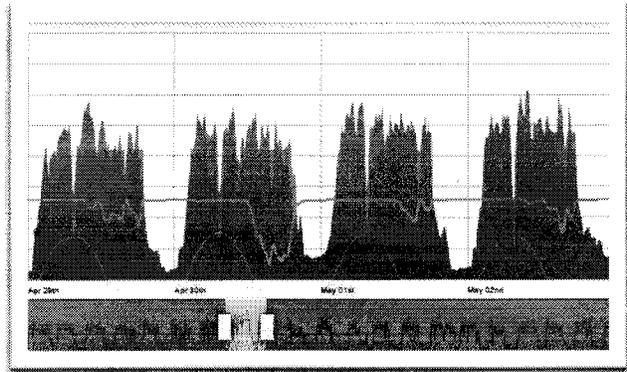
In 2015 Arizona Public Service (APS) contracted with Tierra Resource Consultants to design and oversee the Solar Innovation Study (SIS), a pilot program designed to install solar, storage, energy efficiency, and demand response systems in 75 homes. This project will define the optimal blend of distributed energy resources (DERs) and controls that will help utilities with load-shifting and flattening strategies needed to address grid management issues related to the proliferation of customer side distributed energy generation projects. Select project requirements include;

- Procure and integrate DER systems including energy efficiency, distributed generation (Solar PV), battery-based energy storage, thermal energy storage, and ZigBee compliant Wi-Fi enabled home energy management systems with integrated demand response capability including proactive smart meter enabled price response strategies;
- Work closely with manufacturers, vendors, and engineering teams to develop the technical specifications necessary to accelerate product development, manufacturing scheduling, and UL certification of emerging technologies tailored for the engineering requirements of the pilot. AMI data at 5 to 15 minute frequency will be used as a testbed for rate design, quantify system performance, and allow for automated proactive load shedding;
- Use the awareness-knowledge-Attitudes-Behavior (akAB) model of behavior change to assess participant awareness/knowledge of energy use (ak), personal responsibility attitudes (A) and behaviors (B) toward energy use prior to and after installing integrated distributed energy resource (DER) systems on residences in Phoenix; and
- Design the sample of homes such that study participants are representative of select demographic and psychographic characteristics of the over 75,000 customers currently enrolled in the APS net-metering tariff. Customer selection includes the use of Nielsen PRIZM segmentation metrics that combine demographic, consumer behavior, and geographic data to define customer technology preferences and likely behaviors.

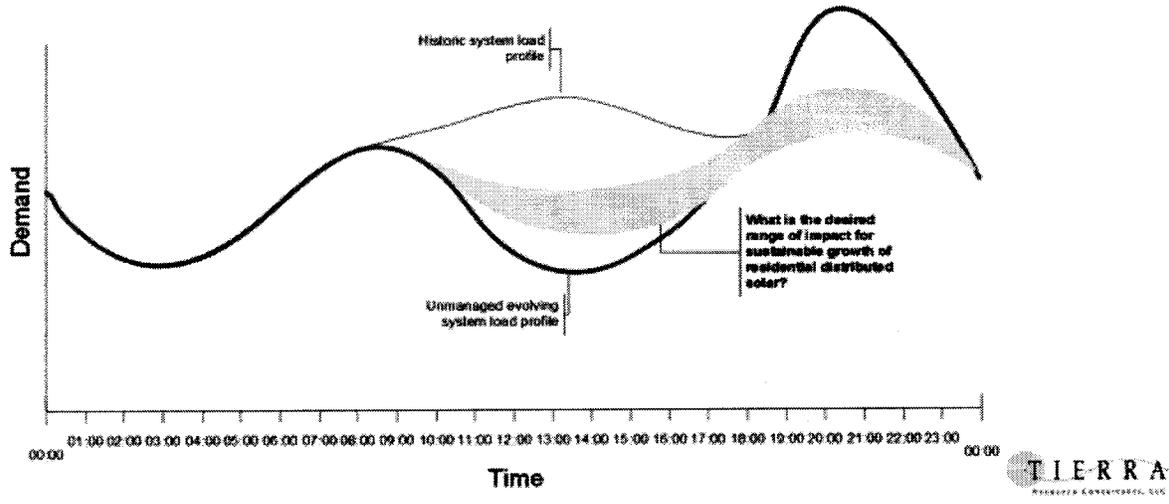
The figure below shows the technology environment that Tierra has defined, and for which installation has begun in December, 2015.



The thermal characteristic and load shape of each home will be established, and load shift and demand limiting potential will be modeled, as shown in the figure to the right. Upon completion in 2017, the project will define the full nature of the residential customer market, and the optimal technology suites and rate designs that will define the ideal solar home load shape, as shown in the figure below. This will include a specification of the customer side programs and interventions needed to achieve the desired system load shape and associated revenue goals.



## Mapping the Ideal Solar Home Load Shape



The SIS project is currently expanding to include a Quality Solar Systems Installation training program being led by Solar Energy International (SEI), one of the oldest renewable energy training organizations in the country. Tierra is developing for SEI several curricula that will train solar installation contractors on how to integrate a broader set of distributed energy resources into solar installation services. The training modules that Tierra is developing include;

- Lesson 1: Overview and Introduction to Distributed Energy Resources (DERs)
- Lesson 2: Sustainable Growth through Distributed Energy Resources
- Lesson 3: Shifting Demand – Creating Smarter and More Flexible Homes
- Lesson 4: Technology to Expand Your Business – Demand Management Ideas that Work
- Lesson 5: Energy Storage / Battery Technology
- Lesson 6: Charge Control
- Lesson 7: National Electrical Code (NEC) Requirements
- Lesson 8: Commissioning and Maintenance
- Lesson 9: Sales Strategies and Ethics
- Lesson 10: Emerging Technology Solutions – Thinking to the Future

## ATTACHMENT 2: STATEMENT OF SUBCONTRACTOR

### Subcontractor 1: ASWB Engineering

Company Name: ASWB Engineering (a Woman-Owned Small Business Enterprise)

Contact Name and Phone Number: Dennis Rowan; (714) 731-8193

Contact Email: drowan@aswb-engineering.com

Address: 2512 Chambers Rd #103, Tustin, CA 92780

Contract Date: 2016

Sub-Contract Dollar Amount: To be determined given task orders from City of San Diego.  
Budget could be \$250,000 per year.

Requirements of Contract: ASWB will provide bill review and tariff analysis as part of MRW team.

Is the Subcontractor a certified SLBE, ELBE, MBE, DBE, DVBE, or OBE? **YES (a woman-owned small business enterprise)**

If YES, Contractor must provide valid proof of certification with the response to the bid or proposal. **(see next page)**

Welcome | Logout  
 Need assistance?  
 Contact us  
 or call 800-993-9339



**ASWB Engineering - #1795095**

Supplier Profile

Legal Business Name ASWB Engineering  
 Doing Business As ASWB Engineering  
 Address 2512 Chambers Rd.  
 TUSTIN, CA 92780  
 Phone (714) 731-8193  
 FAX  
 Email [dkaham@ASWB-Engineering.com](mailto:dkaham@ASWB-Engineering.com)  
 Business Types Service  
 Non-Manufacturer  
 Service Areas Alameda, Alpine, Amador, Butte, Calaveras, Colusa, Contra Costa, Del Norte, El Dorado, Fresno, Glenn, Humboldt, Imperial, Inyo, Kern, Kings, Lake, Lassen, Los Angeles, Madera, Marin, Mariposa, Mendocino, Merced, Modoc, Mono, Monterey, Napa, Nevada, Orange, Placer, Plumas, Riverside, Sacramento, San Benito, San Bernardino, San Diego, San Francisco, San Joaquin, San Luis Obispo, San Mateo, Santa Barbara, Santa Clara, Santa Cruz, Shasta, Sierra, Siskiyou, Solano, Sonoma, Stanislaus, Sutter, Tehama, Trinity, Tulare, Tuolumne, Ventura, Yolo, Yuba,  
 Keywords Energy Efficiency, Energy Consulting, Energy Training, Energy Audit, Measurement and Verification, Demand Response, Energy Upgrade  
 Classifications 811016 - Mechanical engineering  
 811017 - Electrical and electronic engineering

**Active Certifications**

TYPE	STATUS	FROM	TO
SB (Micro)	Approved	Mar 2, 2015	Mar 31, 2017



hereby grants

# National Women's Business Enterprise Certification

to

## ASWB Engineering

who has successfully met WBENC's standards as a Women's Business Enterprise (WBE).  
This certification affirms the business is woman-owned, operated and controlled; and is valid through the date herein.

WBENC National WBE Certification was processed and validated by Women's Business Enterprise Council - West, a WBENC Regional Partner Organization.

*Pamela Williamson, Ph.D.*

Authorized by Pamela S. Williamson, Ph.D., President/CEO,  
Women's Business Enterprise Council - West



Expiration Date: 08/31/2016  
WBENC National Certificate Number: 2005125123

NAICS Codes: 541330, 541350, 541690

UNSPSC Codes: 81100000, 86100000, 81140000, 86130000



## **Subcontractor 2: Tierra Resource Consultants, LLC**

Company Name: Tierra Resource Consultants, LLC

Contact Name and Phone Number: Floyd Keneipp; (925) 954-7363

Contact Email: [Floyd.Keneipp@TierraRC.com](mailto:Floyd.Keneipp@TierraRC.com)

Address: 1200 Mt Diablo Blvd, Suite 208, Walnut Creek, CA 94596

Contract Date: Have worked with TRC since 2015

Sub-Contract Dollar Amount: To be determined given task orders from City of San Diego. Budget could be up to \$180k per year for first two years of project if the City of San Diego pursues a Regional Energy Network and if the City participates in energy efficiency proceedings at the CPUC.

Requirements of Contract: TRC will provide energy efficiency program analysis, assist with development of and advocacy supporting establishment of San Diego Regional Energy Network, and support MRW's expert witness testimony related to energy efficiency issues.

Is the Subcontractor a certified SLBE, ELBE, MBE, DBE, DVBE, or OBE? **YES (a small business enterprise)**

If YES, Contractor must provide valid proof of certification with the response to the bid or proposal. **(see next page)**

From: CertBounceBack@dgs.ca.gov  
Subject: State of CA Notification Letter  
Date: June 6, 2014 at 9:40 AM  
To: Floyd Keneipp Floyd.Keneipp@tierrarc.com



Governor Edmund G. Brown Jr.

Jun 6, 2014

SB APP

Supplier #1785464  
TIERRA RESOURCE CONSULTANTS  
1630 N MAIN ST #252  
WALNUT CREEK CA 94596

Dear Business Person:

Congratulations on your Small Business (SB) certification with the State of California. Your business is now entitled to compete in the State's goal to spend 25 percent of its annual contracting dollars with small businesses. Each certified SB receives a five percent bid preference on applicable solicitations. This certification also guarantees higher interest penalties for late payment of undisputed invoices. You may purchase a rubber stamp by completing the Prompt Payment Rubber Stamp Order form at [www.documents.dgs.ca.gov/pd/smallbus/ppstampreq.pdf](http://www.documents.dgs.ca.gov/pd/smallbus/ppstampreq.pdf). For more information or to verify certification status, visit [www.eprocure.dgs.ca.gov](http://www.eprocure.dgs.ca.gov).

### Certification Period

From Jun 3, 2014 to Jun 30, 2016

### Business Types

Service

### Conflict of Interest for Current and Former State Employees

*Prior to contract award, agencies will assure the vendor is in compliance with Public Contract Code, Section 10410 et seq. addressing conflict of interest for State employees or former employees.*

### Annual Submission Requirement

Submit copies of the ENTIRE federal tax return to the Office of Small Business and DVBE Services (OSDS). If you have been granted a tax filing extension with the Internal Revenue Service, submit a copy of the extension form and annual financial statements; then, submit a copy of the tax return once filed. If you have employees, include the California Employment Development Department's "Quarterly Contribution Return and Report of Wages (Continuation)" (Form DE9C). If you have out-of-state employees, submit the employee documentation comparable to Form DE9C. These annual submissions also apply to all affiliated businesses.

### Maintaining Your Online Certified Firm Profile

Visit [www.eprocure.dgs.ca.gov/default.htm](http://www.eprocure.dgs.ca.gov/default.htm) to update your certification profile. You may report changes to the following: mailing and principal office address; contact information; keywords and service areas; United Nations Standard Products and Services Codes, North American Industry Classification System (applicable only to

Manufacturers). This certification may be impacted if you update information beyond the aforementioned. To report changes by mail, complete a "Certification Information Change" form located at [www.documents.dgs.ca.gov/pd/smallbus/certchange.pdf](http://www.documents.dgs.ca.gov/pd/smallbus/certchange.pdf).

### Certification Renewal

Please complete an online application at [www.eprocure.dgs.ca.gov](http://www.eprocure.dgs.ca.gov) 90 days prior to the expiration date whether or not you receive a renewal notice. If you hold dual certifications, SB and DVBE certifications, you must renew both certifications at the same time. Please contact us at 800.559.5529, 916.375.4940 or by email at [OSDSHelp@dgs.ca.gov](mailto:OSDSHelp@dgs.ca.gov) if you have any questions.

Sincerely,

Office of Small Business and DVBE Services

## **2.4 Equal Opportunity Contracting Program (EOCP) Good and Services Contract Requirements**

## **EQUAL OPPORTUNITY CONTRACTING PROGRAM**

MRW has an active equal opportunity program. We actively recruit, hire, train, and promote a diverse workforce. MRW's commitment to equal opportunity is demonstrated in our Work Force Report, which shows the variety of ethnicities that are employed at MRW. In addition, even through many MRW projects do not require subcontractors, MRW has met or exceeded requirements for diversity in subcontracting in prior assignments.

### **MRW's Commitment to Equal Opportunity in its Own Staff**

MRW's commitment to equal opportunity is evidenced by our statement of equal opportunity on the second page of MRW's Employee Handbook:

#### **Equal Opportunity**

MRW is an equal opportunity employer and will not discriminate against any employee on the basis of race, color, sex (including pregnancy, childbirth, or related medical conditions), age, national origin, ancestry, religion, marital status, veteran status, sexual orientation, legally-protected medical condition, physical or mental disability, or such other characteristic as is prohibited by applicable law.

When necessary and reasonable, MRW also makes accommodations for employees with disabilities and for pregnant employees who request an accommodation.

Currently, MRW has professional and administrative personnel from various ethnic groups (see Attachment BB: work Force Report. This is not atypical: in addition, as can be seen in Work Force Reports supplied by MRW to the City as part of our prior contracts with the City, MRW has typically had professional and administrative employees in many of the different ethnic groups. As can also be seen from those reports, MRW has actively recruited women in both administrative, professional, and management positions. For example, until early 2015 (when she retired from MRW), one of the owners of MRW was a woman.

### **MRW's Commitment to Equal Opportunity in its Subcontractors**

Given MRW's wide range of skills and experience, most of MRW's projects do not require subcontractors (see the attached Subcontractor Past Participation List, which shows that MRW only used subcontractors on five projects in the last three years).<sup>1</sup> As a result, MRW has not been able to contract with disadvantaged businesses over the past three years. However, MRW has used subcontractors from disadvantaged groups in the past. For example, in 2006 MRW was the prime contractor with the California Energy Commission on a very large study of nuclear power

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<sup>1</sup> MRW is using subcontractors in this proposal to provide the City with skills that complement MRW's in-house expertise. Both of MRW's subcontractors are certified small businesses and one is a woman-owned business enterprise.

issues. On that assignment, MRW contracted with a Disabled Veteran Minority-Owned Business Enterprise.

### **MRW's Community Activities**

MRW is a certified Small Business (see following page). MRW is not located in San Diego. As a result, we do not undertake community activities in San Diego.

**ATTACHMENTS**

**CONTRACTORS CERTIFICATION OF PENDING ACTIONS**

**WORK FORCE REPORT**

**SUBCONTRACTOR PAST PARTICIPATION LISTS**

## ATTACHMENT

EQUAL OPPORTUNITY CONTRACTING PROGRAM (EOCP)  
CONSULTANT CONTRACTOR REQUIREMENTS

## I. City's Equal Opportunity Commitment.

The City of San Diego (City) promotes equal employment and subcontracting opportunities. The City is committed to ensuring that taxpayer dollars spent on public contracts are not paid to businesses that practice discrimination in employment or subcontracting. The City encourages all companies seeking to do business with the City to share this commitment.

*City contractors must submit the required EOCP documentation indicated below with their proposals. Contractors who fail to provide the required EOCP documentation are considered non-responsive.*

## II. Definitions.

**Minority Business Enterprise (MBE):** a certified business which is at least fifty-one percent (51%) owned by African Americans, American Indians, Asians, Filipinos, Latinos, or a combination and whose management and daily operation is controlled by one or more members of the identified ethnic groups. In the case of a publicly-owned business, at least fifty-one percent (51%) of the stock must be owned by, and the business operated by, one or more members of the identified ethnic groups.

**Women Business Enterprise (WBE):** a certified business which is at least fifty-one percent (51%) owned by one or more women and whose management and daily operation is controlled by the qualifying party(ies). In the case of a publicly-owned business, at least fifty-one percent (51%) of the stock must be owned by, and the business operated by, one or more women.

**Disadvantaged Business Enterprise (DBE):** a certified business which is at least fifty-one percent (51%) owned and operated by one or more socially and economically disadvantaged individuals and whose management and daily operation is controlled by the qualifying party(ies). In the case of a publicly-owned business, at least fifty-one percent (51%) of the stock must be owned by, and the business operated by, socially and economically disadvantaged individuals.

**Disabled Veteran Business Enterprise (DVBE):** a certified business which is at least fifty-one percent (51%) owned by one or more veterans with a service related disability and whose management and daily operation is controlled by the qualifying party(ies). The firm shall be certified by the State of California's Department of General Services, Office of Small and Minority Business.

**Other Business Enterprise (OBE):** any business which does not otherwise qualify as Minority, Woman, Disadvantaged or Disabled Veteran Business Enterprise.

**Emerging Business Enterprise (EBE):** a business whose gross annual receipts do not exceed the amount set by the City Manager, and which meets all other criteria set forth in the regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for EBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace.

**Emerging Local Business Enterprise (ELBE):** a Local Business Enterprise that is also an Emerging Business Enterprise.

**Small Business Enterprise (SBE):** a business whose gross annual receipts do not exceed the amount set by the City Manager, and that meets all other criteria set forth in regulations implementing the City's Small and Local Business Preference Program. The City Manager shall review the threshold amount for SBEs on an annual basis, and adjust as necessary to reflect changes in the marketplace. A business certified as a DVBE by the State of California, and that has provided proof of such certification to the City manager, shall be deemed to be an SBE.

**Small Local Business Enterprise (SLBE):** a Local Business Enterprise that is also a Small Business Enterprise.

**Local Business Enterprise (LBE):** a business that has both a principal place of business and a significant employment presence in the County of San Diego, and that has been in operation for twelve (12) consecutive months. This definition is subsumed within the definition of Small Local Business Enterprise.

**Principal Place of Business:** a location wherein a business maintains a physical office and through which it obtains no less than fifty percent (50%) of its overall customers or sales dollars.

**Significant Employee Presence:** no less than twenty-five percent (25%) of a business's total number of employees.

**Commercially Useful Function:** an SLBE/ELBE performs a commercially useful function when it is responsible for execution of the work and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the SLBE/ELBE shall also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quantity and quality, ordering the material, and installing (where applicable) and paying for the material itself.

To determine whether an SLBE/ELBE is performing a commercially useful function, an evaluation will be performed of the amount of work subcontracted, normal industry practices, whether the amount the SLBE/ELBE firm is to be paid under the contract is commensurate with the work it is actually performing and the SLBE/ELBE credit

claimed for its performance of the work, and other relevant factors. Specifically, an SLBE/ELBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of meaningful and useful SLBE/ELBE participation, when in similar transactions in which SLBE-ELBE firms do not participate, there is no such role performed.

### **III. Disclosure of Criminal Complaints.**

As part of its bid or proposal, Contractor shall provide (Attachment AA) to the City a list of all instances within the past ten (10) years where a complaint was filed or pending against Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, Subcontractors, vendors, or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

### **IV. Work Force Report and Equal Employment Opportunity Outreach Plan.**

A. Work Force Report. Contractors shall submit with their bid or proposal a Work Force Report for approval by the City. (Attachment BB). If the City determines that there are under representations when compared to County Labor Force Availability data, then the Contractor will also be required to submit an Equal Employment Opportunity (EEO) Plan to the City for approval.

B. Duty to Comply with Equal Opportunity Outreach Plan. A Contractor for whom an Equal Employment Opportunity Outreach Plan (EEOP) has been approved by the City shall use best efforts to comply with that EEOP.

### **V. Small and Local Business Program Requirements.** The City has adopted a Small and Local Business Enterprise (SLBE) program for Consultant Contracts. SLBE program requirements for Consultant Contracts are set forth Council Policy 100-10.

#### **A. SLBE and ELBE Participation for Contracts Valued Over \$50,000:**

1. For proposals ranking as qualified or acceptable, or any higher ranking, the City shall apply a maximum of 12 additional points for SLBE or ELBE participation. Points will be awarded as follows:
  - a. 20% participation – 5 points
  - b. 25% participation – 10 points
  - c. SLBE or ELBE as prime contractor – 12 points
2. All goods, services and consultant contracts valued over \$50,000 or more have a voluntary SLBE/ELBE participation goal of twenty percent (20%). For the

purposes of this Council Policy, the subcontractor requirement may be met by a provider of materials or supplies.

## VI. Demonstrated Commitment to Equal Opportunity.

The City seeks to foster a business climate of inclusion and to eliminate barriers to inclusion.

- A. Contractors are required to submit the following information with their bid or proposal:
  1. **Past Participation Levels** . Listing of Contractor's Subcontractor participation levels (Attachment DD) achieved on all private and public projects within the past three (3) years. Include name of project, type of project, value of project, Subcontractor firm's name, percentage of Subcontractor firm's participation, and identification of Subcontractor firm's ownership as a certified Small or Emerging Local Business Enterprise, Woman Business Enterprise, Disadvantaged Business Enterprise, Disabled Veteran Business Enterprise, or Other Business Enterprise. To receive points, provide valid proof of certification.
  2. **Equal Opportunity Employment** . Provide detailed written narrative of Contractor's strategies to recruit, hire, train and promote a diverse workforce. These efforts will be considered in conjunction with Contractor's *Workforce Report* as compared to the County's Labor Force Availability.
  3. **Community Activities** . Provide detailed written narrative of Contractor's current community activities such as membership and participation in local organizations, associations, scholarship programs, mentoring, apprenticeships, internships, community projects, charitable contributions and similar endeavors.
- B. In accordance with the City's Equal Opportunity Commitment, the City will consider the three factors described above as part of the RFP evaluation process.

## VII. Certification.

The City accepts certifications of MBE, WBE, DBE, or DVBE from the following certifying agencies:

- A. Current certification by the State of California Department of Transportation (CALTRANS) as DBE.
- B. Current MBE or WBE certification from the California Public Utilities Commission.
- C. DVBE certification is received from the State of California's Department of General Services, Office of Small and Minority Business.

D. Current certification by the City of Los Angeles as DBE, WBE or MBE.

Subcontractors' valid proof of certification status e.g., copy of MBE, WBE, DBE, or DVBE certification must be submitted with RFP.

**VIII. List of Attachments.**

AA. Contractors Certification of Pending Actions

BB. Work Force Report

CC. Subcontractors Past Participation List

**AA. CONTRACTORS CERTIFICATION OF PENDING ACTIONS**

As part of its bid or proposal, the Contractor must provide to the City a list of all instances within the past 10 years where a complaint was filed or pending against the Contractor in a legal or administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers, and a description of the status or resolution of that complaint, including any remedial action taken.

CHECK ONE BOX ONLY.

- The undersigned certifies that within the past 10 years the Contractor has NOT been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers.
  
- The undersigned certifies that within the past 10 years the Contractor has been the subject of a complaint or pending action in a legal administrative proceeding alleging that Contractor discriminated against its employees, subcontractors, vendors or suppliers. A description of the status or resolution of that complaint, including any remedial action taken and the applicable dates is as follows:

DATE OF CLAIM	LOCATION	DESCRIPTION OF CLAIM	LITIGATION (Y/N)	STATUS	RESOLUTION/REMEDIAL ACTION TAKEN

Contractor Name: MRW & Associates, LLC

Certified By William A. Monsen Title Principal/EVP

  
 Name  
 Signature

Date 2/16/16

**USE ADDITIONAL FORMS AS NECESSARY**



City of San Diego

**EQUAL OPPORTUNITY CONTRACTING (EOC)**

1200 Third Avenue • Suite 200 • San Diego, CA 92101

Phone: (619) 236-6000 • Fax: (619) 236-5904

**BB. WORK FORCE REPORT**

The objective of the *Equal Employment Opportunity Outreach Program*, is to ensure that contractors doing business with the City, or receiving funds from the City, do not engage in unlawful discriminatory employment practices prohibited by State and Federal law. Such employment practices include, but are not limited to unlawful discrimination in the following: employment, promotion or upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rate of pay or other forms of compensation, and selection for training, including apprenticeship. Contractors are required to provide a completed *Work Force Report (WFR)*.

NO OTHER FORMS WILL BE ACCEPTED

**CONTRACTOR IDENTIFICATION**

Type of Contractor:  Construction  Vendor/Supplier  Financial Institution  Lessee/Lessor  
 Consultant  Grant Recipient  Insurance Company  Other

Name of Company: MRW & Associates, LLC

ADA/DBA: \_\_\_\_\_

Address (Corporate Headquarters, where applicable): 1814 Franklin Street, Suite 720City: Oakland County: USA State: CA Zip: 94612Telephone Number: ( 510 ) 834-1999 Fax Number: ( 510 ) 834-0918Name of Company CEO: David A. Howarth

Address(es), phone and fax number(s) of company facilities located in San Diego County (if different from above):

Address: None

City: \_\_\_\_\_ County: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Telephone Number: ( ) \_\_\_\_\_ Fax Number: ( ) \_\_\_\_\_

Type of Business: \_\_\_\_\_ Type of License: \_\_\_\_\_

The Company has appointed: \_\_\_\_\_

As its Equal Employment Opportunity Officer (EEOO). The EEOO has been given authority to establish, disseminate and enforce equal employment and affirmative action policies of this company. The EEOO may be contacted at:

Address: 1814 Franklin St. Suite 720, Oakland, CA 94612Telephone Number: ( 510 ) 834-1999 Fax Number: ( 510 ) 834-0918 One San Diego County (or Most Local County) Work Force - Mandatory Branch Work Force \*  Managing Office Work Force*Check the box above that applies to this WFR.**\*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*I, the undersigned representative of MRW & Associates, LLCAlameda, California (Firm Name)

(County)

(State)

hereby certify that information provided

herein is true and correct. This document was executed on this 16th day of February, 2016(Authorized Signature)William A. Monsen(Print Authorized Signature Name)

ATTACHMENT

NAME OF FIRM: MRW & Associates, LLC DATE: 2/16/16  
 OFFICE(S) or BRANCH(ES): 1814 Franklin St. Ste. 720 Oakland COUNTY: Alameda

I. INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- |  |  |
|--|--|
| (1) Black, African-American                          | (5) Filipino                                       |
| (2) Hispanic, Latino, Mexican-American, Puerto Rican | (6) White, Caucasian                               |
| (3) Asian, Pacific Islander                          | (7) Other ethnicity; not falling into other groups |
| (4) American Indian, Eskimo                          |  |

ADMINISTRATION OCCUPATIONAL CATEGORY	(1) Black		(2) Hispanic		(3) Asian		(4) American Indian		(5) Filipino		(6) White		(7) Other Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Management & Financial												3		
Professional				1		1						1	1	
A&E, Science, Computer														
Technical														
Sales														
Administrative Support		1											1	
Services														
Crafts														
Operative Workers														
Transportation														
Laborers*														

\*Construction laborers and other field employees are not to be included on this page

Totals Each Column		1		1		1						4	2	
--------------------	--	---	--	---	--	---	--	--	--	--	--	---	---	--

Grand Total All Employees	9
---------------------------	---

Indicate by Gender and Ethnicity the Number of Above Employees Who Are Disabled:

Disabled														
----------	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Non-Profit Organizations Only:

Board of Directors														
Volunteers														
Artists														

ATTACHMENT

NAME OF FIRM: MRW & Associates, LLC DATE: 2/16/16  
 OFFICE(S) or BRANCH(ES): \_\_\_\_\_ COUNTY: Alameda

INSTRUCTIONS: For each occupational category, indicate number of males and females in every ethnic group. Total columns in row provided. Sum of all totals should be equal to your total work force. Include all those employed by your company on either a full or part-time basis. The following groups are to be included in ethnic categories listed in columns below:

- |  |  |
|--|--|
| (1) Black, African-American                          | (5) Filipino                                       |
| (2) Hispanic, Latino, Mexican-American, Puerto Rican | (6) White, Caucasian                               |
| (3) Asian, Pacific Islander                          | (7) Other ethnicity; not falling into other groups |
| (4) American Indian, Eskimo                          |  |

TRADE OCCUPATIONAL CATEGORY	(1) Black		(2) Hispanic		(3) Asian		(4) American Indian		(5) Filipino		(6) White		(7) Other Ethnicity	
	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)	(M)	(F)
Brick, Block or Stone Masons														
Carpenters														
Carpet, Floor & Tile Installers Finishers														
Cement Masons, Concrete Finishers														
Construction Laborers														
Drywall Installers, Ceiling Tile Inst														
Electricians														
Elevator Installers														
First-Line Supervisors/Managers														
Glaziers														
Helpers; Construction Trade														
Millwrights														
Misc. Const. Equipment Operators														
Painters, Const. & Maintenance														
Pipelayers, Plumbers, Pipe & Steam Fitters														
Plasterers & Stucco Masons														
Roofers														
Security Guards & Surveillance Officers														
Sheet Metal Workers														
Structural Metal Fabricators & Fitters														
Welding, Soldering & Brazing Workers														
Workers, Extractive Crafts, Miners														
Totals Each Column	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand Total All Employees	0													
Indicate By Gender and Ethnicity the Number of Above Employees Who Are Disabled:														



## CITY OF SAN DIEGO WORK FORCE REPORT

### HISTORY

The Work Force Report (WFR) is the document that allows the City of San Diego to analyze the work forces of all firms wishing to do business with the City. We are able to compare the firm's work force data to County Labor Force Availability (CLFA) data derived from the United States Census. CLFA data is a compilation of lists of occupations and includes the percentage of each ethnicity we track (Black, Hispanic, Asian, American Indian, Filipino) for each occupation. Currently, our CLFA data is taken from the 2010 Census. In order to compare one contractor to another, it is important that the data we receive from the Contractor firm is accurate and organized in the manner that allows for this fair comparison.

### WORK FORCE & BRANCH WORK FORCE REPORTS

When submitting a WFR, especially if the WFR is for a specific project or activity, we would like to have information about the firm's work force that is actually participating in the project or activity. That is, if the project is in San Diego and the work force is from San Diego, we want a San Diego County Work Force Report.<sup>1</sup> By the same token, if the project is in San Diego, but the work force is from another county, such as Orange or Riverside County, we want a Work Force Report from that county.<sup>2</sup> If participation in a San Diego project is by work forces from San Diego County and, for example, from Los Angeles County and from

Sacramento County, we ask for separate Work Force Reports representing your firm from each of the three counties.

### MANAGING OFFICE WORK FORCE

Equal Opportunity Contracting may occasionally ask for a Managing Office Work Force (MOWF) Report. This may occur in an instance where the firm involved is a large national or international firm but the San Diego or other local work force is very small. In this case, we may ask for both a local and a MOWF Report.<sup>1,3</sup> In another case, when work is done only by the Managing Office, only the MOWF Report may be necessary.<sup>3</sup>

### TYPES OF WORK FORCE REPORTS:

Please note, throughout the preceding text of this page, the superscript numbers one<sup>1</sup>, two<sup>2</sup> & three<sup>3</sup>. These numbers coincide with the types of work force report required in the example. See below:

- <sup>1</sup> One San Diego County (or Most Local County) Work Force – Mandatory in most cases
- <sup>2</sup> Branch Work Force \*
- <sup>3</sup> Managing Office Work Force

*\*Submit a separate Work Force Report for all participating branches. Combine WFRs if more than one branch per county.*

### **Exhibit A: Work Force Report Job categories-Administration**

Refer to this table when completing your firm's Work Force Report form(s).

#### **Management & Financial**

Advertising, Marketing, Promotions, Public Relations, and Sales Managers
Business Operations Specialists
Financial Specialists
Operations Specialties Managers
Other Management Occupations
Top Executives

#### **Professional**

Art and Design Workers
Counselors, Social Workers, and Other Community and Social Service Specialists
Entertainers and Performers, Sports and Related Workers
Health Diagnosing and Treating Practitioners
Lawyers, Judges, and Related Workers

ATTACHMENT

Librarians, Curators, and Archivists
Life Scientists
Media and Communication Workers
Other Teachers and Instructors
Postsecondary Teachers
Primary, Secondary, and Special Education School Teachers
Religious Workers
Social Scientists and Related Workers

**Architecture & Engineering, Science, Computer**

Architects, Surveyors, and Cartographers
Computer Specialists
Engineers
Mathematical Science Occupations
Physical Scientists

**Technical**

Drafters, Engineering, and Mapping Technicians
Health Technologists and Technicians
Life, Physical, and Social Science Technicians
Media and Communication Equipment Workers

**Sales**

Other Sales and Related Workers
Retail Sales Workers
Sales Representatives, Services
Sales Representatives, Wholesale and Manufacturing
Supervisors, Sales Workers

**Administrative Support**

Financial Clerks
Information and Record Clerks
Legal Support Workers
Material Recording, Scheduling, Dispatching, and Distributing Workers
Other Education, Training, and Library Occupations
Other Office and Administrative Support Workers
Secretaries and Administrative Assistants
Supervisors, Office and Administrative Support Workers

**Services**

Building Cleaning and Pest Control Workers
Cooks and Food Preparation Workers
Entertainment Attendants and Related Workers
Fire Fighting and Prevention Workers
First-Line Supervisors/Managers, Protective Service Workers
Food and Beverage Serving Workers
Funeral Service Workers
Law Enforcement Workers

Nursing, Psychiatric, and Home Health Aides
Occupational and Physical Therapist Assistants and Aides
Other Food Preparation and Serving Related Workers
Other Healthcare Support Occupations
Other Personal Care and Service Workers
Other Protective Service Workers
Personal Appearance Workers
Supervisors, Food Preparation and Serving Workers
Supervisors, Personal Care and Service Workers
Transportation, Tourism, and Lodging Attendants

**Crafts**

Construction Trades Workers
Electrical and Electronic Equipment Mechanics, Installers, and Repairers
Extraction Workers
Material Moving Workers
Other Construction and Related Workers
Other Installation, Maintenance, and Repair Occupations
Plant and System Operators
Supervisors of Installation, Maintenance, and Repair Workers
Supervisors, Construction and Extraction Workers
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers
Woodworkers

**Operative Workers**

Assemblers and Fabricators
Communications Equipment Operators
Food Processing Workers
Metal Workers and Plastic Workers
Motor Vehicle Operators
Other Production Occupations
Printing Workers
Supervisors, Production Workers
Textile, Apparel, and Furnishings Workers

**Transportation**

Air Transportation Workers
Other Transportation Workers
Rail Transportation Workers
Supervisors, Transportation and Material Moving Workers
Water Transportation Workers

**Laborers**

Agricultural Workers
Animal Care and Service Workers
Fishing and Hunting Workers
Forest, Conservation, and Logging Workers
Grounds Maintenance Workers
Helpers, Construction Trades
Supervisors, Building and Grounds Cleaning and Maintenance Workers
Supervisors, Farming, Fishing, and Forestry Workers

**Exhibit B: Work Force Report Job categories-Trade****Brick, Block or Stone Masons**

Brickmasons and Blockmasons
Stonemasons

Roofers

All other Construction Trades

**Carpenters****Carpet, floor and Tile Installers and Finishers**

Carpet Installers
Floor Layers, except Carpet, Wood and Hard Tiles
Floor Sanders and Finishers
Tile and Marble Setters

**Cement Masons, Concrete Finishers**

Cement Masons and Concrete Finishers
Terrazzo Workers and Finishers

**Construction Laborers****Drywall Installers, Ceiling Tile Inst**

Drywall and Ceiling Tile Installers
Tapers

**Electricians****Elevator Installers and Repairers****First-Line Supervisors/Managers**

First-line Supervisors/Managers of Construction Trades and Extraction Workers
---

**Glaziers****Helpers, Construction Trade**

Brickmasons, Blockmasons, and Tile and Marble Setters
Carpenters
Electricians
Painters, Paperhangers, Plasterers and Stucco
Pipelayers, Plumbers, Pipefitters and Steamfitters

**Millwrights**

Heating, Air Conditioning and Refrigeration Mechanics and Installers
Mechanical Door Repairers
Control and Valve Installers and Repairers
Other Installation, Maintenance and Repair Occupations

**Misc. Const. Equipment Operators**

Paving, Surfacing and Tamping Equipment Operators
Pile-Driver Operators
Operating Engineers and Other Construction Equipment Operators

**Painters, Const. Maintenance**

Painters, Construction and Maintenance
Paperhangers

**Pipelayers and Plumbers**

Pipelayers
Plumbers, Pipefitters and Steamfitters

**Plasterers and Stucco Masons**

**Roofers**

**Security Guards & Surveillance Officers**

**Sheet Metal Workers**

**Structural Iron and Steel Workers**

**Welding, Soldering and Brazing Workers**

Welders, Cutter, Solderers and Brazers
Welding, Soldering and Brazing Machine Setter, Operators and Tenders

**Workers, Extractive Crafts, Miners**











### 3. Tab B

### 3.1 Title Page for Proposal

**Proposal to Furnish the City of San Diego with Energy  
Consultant Services**

**Solicitation Number 10069820-16-A**

---



MRW & Associates, LLC  
1814 Franklin Street, Suite 720  
Oakland, CA 94612

February 16, 2016

## **3.2 Table of Contents**

**See Table of Contents at Front of Document**

### 3.3 Executive Summary

MRW & Associates, LLC (MRW) is pleased to present this proposal to provide the City of San Diego (City) with Energy Consultant Services as requested in Solicitation 10069820-16-A.

MRW has provided energy consulting services to the City since 1989. Over that period, MRW has provided expert witness support and advisory services on behalf of various departments of the City, including the Environmental Services Department, the Public Utilities Department, and the City Attorney. These activities include:

- MRW represented the City's interests before the California Public Utilities Commission (CPUC) by providing expert witness testimony, regulatory analysis, and negotiation support services in various General Rate Case proceedings, investigations, rulemakings, and cost recovery proceedings, resulting in significant cost savings to the City.
- MRW has provided technical and economic analysis and evaluation of energy-related projects being considered by the City, such as the City's landfill gas and cogeneration operations at the Miramar Landfill and the North City Water Reclamation Plant. MRW has also provided analysis and advice regarding the City's independent power program, including advising the City regarding sale of excess power from its Point Loma facility.

In addition to MRW's work on behalf of the City, MRW has extensive experience helping other clients assess the economic and regulatory feasibility of behind-the-meter solar and cogeneration projects. Also, MRW has been deeply involved in the assessment of the feasibility and risks related to Community Choice Aggregation (CCA). MRW has prepared feasibility studies of a number of potential CCAs and has analyzed and provided peer reviews of other feasibility studies in order to provide our clients with an understanding of potential risks and rewards associated with participation in CCAs. Furthermore, MRW has represented CCAs and other third-party providers of commodity electric service in numerous CPUC proceedings regarding exit fees, CCA fees, and other matters of concern to CCAs.

MRW has assembled a very strong team to provide the requested services to the City. In addition to the highly-qualified MRW staff that will work on this project, ASWB Engineering and Tierra Resource Consultants provide consulting expertise that complements MRW's own capabilities. ASWB, a woman-owned business enterprise, will provide bill review and tariff analysis to ensure that the City's utility bills are correct and that the City's accounts are taking service under the most favorable tariffs. Tierra Resource Consultants, a California registered small business, will provide the City with in-depth knowledge regarding energy efficiency program design, will assist the City with advocacy regarding energy efficiency issues at the CPUC, and will assist the City in development of the strategy, programs and administrative structures that might be required for a Regional Energy Network.

MRW appreciates the opportunity to present this proposal to the City and looks forward to continuing to provide high quality energy consulting services to support the City's innovative energy program. If you have any questions about this proposal, please feel free to contact me at (510) 834-1999 or [wam@mrwassoc.com](mailto:wam@mrwassoc.com).

### **3.4 Proposal**

This section presents MRW's proposal regarding the services that MRW would be available to provide under this contract. Please note that the City may request other tasks that are not described below but that MRW or its subcontractors may be able to provide.

#### **3.4.1 Proposed Services to be Provided to the City**

The City of San Diego is involved in a wide array of energy-related activities. These include:

- Controlling electricity and natural gas costs;
- Ensuring cost-effective energy supplies;
- Controlling and reducing emissions and environmental damage associated with the City's energy usage;
- Supporting the establishment of opportunities for the citizens and businesses of San Diego to control their own energy costs through creative procurement strategies such as Community Choice Aggregation; and
- Providing energy efficiency programs to customers of SDG&E that would otherwise be underserved.

The City pursues these initiatives in various ways. Some of these approaches include:

- Intervention in rate and policy-setting proceedings at the California Public Utilities Commission (CPUC);
- Obtaining low-cost loans from the California Energy Commission and other agencies;
- Establishing public-private partnerships with other public agencies (such as San Diego County, the Port of San Diego, the San Diego Association of Governments) and SDG&E;
- Utilizing existing waste products such as landfill gas, biogas, and treated sewage to generate electricity; and
- Examining alternative power supply opportunities for the City and its citizens and businesses, such as Community Choice Aggregation.

MRW has assisted the City with many of these activities in the past and has established a team of highly qualified experts so that we may continue to help the City meet its cost and climate goals in the coming years.

The strategy and tactics that the City will undertake to meet its goals over the next five years will depend on regulatory developments, CCA developments, and forthcoming City decisions, meaning that the City's future efforts are not fully known at this time. However, MRW believes that the City will likely be involved in, and require consultant assistance for, at least some of the following activities:

- **SDG&E General Rate Cases:** SDG&E filed its second amended application in Phase II of its 2016 General Rate Case in early February 2016. SDG&E's General Rate Cases are scheduled to occur every three years, meaning that there should be at least one more Phase II proceeding during the next five years of the contract.
- **SDG&E Energy Efficiency Proceedings:** The City currently participates in Public-Private Partnerships with SDG&E to deliver energy efficiency services to underserved customers. The CPUC is in the process of modifying the approval process and operational requirements for these programs. The City may need to intervene in these energy efficiency proceedings to defend its existing programs and to potentially propose new programs.
- **Net Energy Metering:** The City currently has solar photovoltaic (PV) systems that take service as part of SDG&E's Net Energy Metering (NEM) program. MRW understands that the City is also planning to install additional PV systems in the future. The "rules of the road" for NEM are changing and the City may find it necessary to advocate for its interests in these proceedings in order to ensure that it is able to develop PV systems that are cost-effective.
- **Community Choice Aggregation:** The City has started to examine the potential benefits and costs of establishing a Community Choice Aggregation (CCA) program. MRW understands that the City plans to request a third-party feasibility study of CCA for the City. Typically, the parties requesting these feasibility studies request a "peer review" of the feasibility study in order to ensure that the study's assumptions are sound and the conclusions are fully supported. If a CCA is found to be beneficial and the City decides to pursue such a program, the City would need to prepare an implementation plan to submit to the CPUC, respond to concerns raised by others, and advocate at the CPUC to obtain permission to proceed with a CCA. The City would also face a host of decisions regarding rate design, power procurement, and power development that would require rate expertise and market analysis.
- **Regional Energy Network:** The City has spent time in the past considering development of a Regional Energy Network (REN), similar to those in the San Francisco Bay Area and in Los Angeles County. A REN would allow the City and other participating agencies to offer energy efficiency programs that complement those programs currently offered by SDG&E. Establishing a REN would require an extensive application to the CPUC. These applications can be controversial depending on the perceived incremental value of a REN compared to existing market offerings. Thus, if the City chose to pursue development of a REN, it would need to undertake an extensive effort both internally and at the CPUC.
- **Exit Fees, Self-Generation, and other Issues.** If the City pursues a CCA, it will need to monitor SDG&E's rate proceedings to ensure that SDG&E does not overstate the costs of services it provides to CCAs and does not understate the rate reductions that are due to CCA customers. In addition, the City would likely want to participate in proceedings that establish the so-called "exit fees" paid by CCA customers to ensure that the exit fee

methodologies are just and reasonable and that they are implemented appropriately. The City may also want to ensure that it has the opportunity to continue to develop behind-the-meter generation projects and that it is fully compensated for the energy provided by these projects. Finally, the City may want to continue its efforts to ensure that SDG&E has reasonable time-of-use periods through participation in SDG&E's General Rate Case Phase II and in the overarching time-of-use period rulemaking at the CPUC.

- **Bill Review and Rate Analysis.** The City has over 3,000 retail accounts with SDG&E. The bills for each of these accounts need to be reviewed to ensure that the meter readings are reasonable, that the charges are properly computed, that they reflect all refunds coming to the City, and that past errors have been corrected. The MRW Team will review bills quarterly (to control costs). In addition to this quarterly bill review, it is advantageous for the City to ensure that its accounts are on the most favorable rate schedule. For example, the City derived significant savings from switching its pumping loads from SDG&E's large commercial/industrial tariff to a water pumping tariff. As SDG&E offers new tariff options or the City's load characteristics shift, the City needs to ensure that its accounts are on the best tariff, given the load characteristics of each accounts.

The following table outlines MRW's assumptions regarding the City's activities in these areas:

**Table 1: Assumptions Regarding Phasing of Issues**

Area	Activity	2016	2017	2018	2019	2020	Requires Testimony and/or Representation?
Regulatory	GRC Phase II	✓			✓		Testimony/Representation
	ERRA <sup>1</sup>	✓	✓	✓	✓	✓	Testimony/Representation
	NEM <sup>2</sup>		✓			✓	Representation
	PCIA <sup>3</sup>	✓		✓			Testimony/Representation
	SGIP <sup>4</sup>		✓			✓	Representation
	TOU <sup>5</sup>	✓					Testimony/Representation
	EE <sup>6</sup>	✓		✓		✓	Testimony/Representation
	CCA <sup>7</sup>	✓	✓				Representation
REN <sup>8</sup>	✓	✓				Testimony/Representation	
Bill and Tariff Review	Quarterly Bill Review	✓	✓	✓	✓	✓	
	Semi-Annual Tariff Review	✓	✓	✓	✓	✓	

Based on this assumed set of regulatory proceedings and other activities, MRW developed an estimate of total fees to provide all of these services (see Tab C below). Note that pursuant to the RFP, the City will determine the proceedings and activities it wishes to pursue under the Energy Consulting contract. The purpose of this table and our budget estimate is to provide the City with an upper bound on potential fees assuming that it undertakes ALL of these activities.<sup>9</sup>

<sup>1</sup> ERRA = Energy Resource Recovery Account proceeding. An annual proceeding that determines fuel and purchased power costs that are allocated to SDG&E’s generation and distribution rates and exit fees for CCA and Direct Access customers.

<sup>2</sup> NEM = Rulemaking related to the Net Energy Metering policy. While these issues have been addressed in a recent decision, they may need to be revisited because of utility challenges in the future.

<sup>3</sup> PCIA = Power Charge Indifference Adjustment. A proceeding to potentially revamp the manner in which SDG&E determines exit fees for CCA and Direct Access customers.

<sup>4</sup> SGIP = Small Generation Incentive Program. This program has been under review and will likely continue to be reviewed to ensure that non-participating ratepayers receive sufficient value for incentives paid to customers under the SGIP.

<sup>5</sup> TOU = Rulemaking related to the determination of the appropriate time-of-use periods. This proceeding is somewhat duplicative of the issues addressed in SDG&E’s GRC Phase II, but it has a longer-term framework and will likely guide the continuing evolution of SDG&E’s time-of-use periods over the coming decade or more.

<sup>6</sup> EE = Rulemaking related to SDG&E’s energy efficiency programs. This proceeding could affect the ability of the City to form a REN.

<sup>7</sup> CCA = Review of CCA feasibility study and, if needed, development of application to CPUC.

<sup>8</sup> REN = Development of programs and application to CPUC for approval of a REN.

<sup>9</sup> It is not possible to precisely identify all potential activities in which the City may need to participate. For example, the CPUC may open a rulemaking that is not anticipated in the above table. For that reason, MRW has added a contingency amount in its budget estimate.

### **3.4.2 Approach to Assignment**

MRW sees five broad sets of potential tasks for this assignment. These are:

1. Provide expert witness testimony and representation services.
2. Provide analysis and advice regarding resource decisions, cost/benefit analysis of investment decisions, and resource allocation.
3. Develop and defend a CCA.
4. Develop and defend a REN.
5. Review bills and tariffs to ensure least-cost energy purchases.

The following discusses our approach to addressing these five sets of tasks below.

#### **3.4.2.1 Expert Witness Testimony and Representation**

While the issues associated with different regulatory proceedings vary, MRW has found that the steps associated with providing expert witness testimony and representation services are fairly predictable. In providing these services to the City, we would take the following steps:

1. MRW would review the application or rulemaking documents issued by the applicant or regulator.
2. If we needed further information to analyze aspects of the proposal, we would draft data requests and work with the City to develop final data requests and prepare follow-up data requests as needed.
3. After gaining a full understanding of the proposal, we would analyze the issues of the case and develop potential litigation positions.
4. After vetting these positions with the City, we would develop draft testimony. The City would review the draft testimony and provide comments and suggestions to ensure consistency with the City's goals in the proceeding. MRW would then finalize the testimony, with either the City or MRW serving the testimony on the parties to the proceeding.
5. MRW would then review all testimony submitted in the proceeding to understand the positions of other parties. This may require issuance of further sets of data requests to ensure that MRW and the City have a complete understanding of the opening testimony.
6. If there is opportunity for rebuttal testimony, MRW would identify issues that are ripe for rebuttal and work with the City to develop positions for the rebuttal testimony. MRW would then draft the rebuttal testimony, if needed, obtaining review and comment from the City as appropriate.
7. Once rebuttal testimony has been served, we would submit additional data requests to prepare for hearing, if needed. Upon request by the City, we would additionally assist with the development of cross-examination questions and exhibits.
8. MRW would prepare for hearing and be available to stand for cross-examination.

9. If the parties are amenable to discussing settlement of issues, MRW would work with the City to develop settlement positions and to analyze the impacts of alternate proposals on the City. This might require development of detailed models of the City's loads and utility bills. MRW would also be available to assist with negotiations.
10. Once the hearings are completed (or settlement is reached), MRW would be available to assist the City Attorney with development of briefs and comments on proposed decisions. If necessary, MRW would be available to assist the City with any ex parte meetings with Commissioners or advisors.

The level of effort associated with regulatory proceedings depends on the number of issues being examined, the type of case being presented (e.g., quantitative testimony tends to be more costly than policy testimony), the amount of testimony being submitted, the extent of hearings and/or settlement talks,<sup>10</sup> and the number of parties to the proceeding.

In order to provide some context to the above high-level discussion of scope, following are descriptions of two CPUC rate cases in which MRW represented the City.

1. In SDG&E's last General Rate Case Phase II proceeding in 2011 and 2012, MRW reviewed SDG&E's testimony, propounded numerous sets of data requests, and ultimately submitted expert witness testimony that recommended a re-classification of a number of the City's largest loads into a more favorable customer class in order to reduce the City's electric costs. After submitting testimony, MRW worked with the City Attorney, Fritz Ortlieb, to represent the City in settlement discussions with other intervenors and obtained agreement from other intervenors and from SDG&E regarding MRW's proposal, which was ultimately adopted by the CPUC.
2. In a 2014 SDG&E rate proceeding, MRW submitted expert testimony objecting to SDG&E's proposed changes to its time-of-use period definitions, in part because SDG&E's proposal would have severely undercut the economics of existing and future solar energy projects being installed at City facilities and in part because consideration of this issue outside of SDG&E's General Rate Case Phase II proceeding made a full evaluation of the proposals' rate implications impossible. In this proceeding, MRW developed numerous data requests and submitted testimony opposing SDG&E's proposal. SDG&E was not amenable to settle the outstanding issues, and hearings were held instead. MRW assisted the City Attorney, Fritz Ortlieb, in the preparation of cross-examination questions for SDG&E and also provided support during the hearings. Ultimately, the CPUC adopted MRW's recommendations and denied SDG&E's application, ordering SDG&E to re-apply to revise its time-of-use periods in a more appropriate regulatory proceeding (i.e., its General Rate Case Phase II proceeding).

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<sup>10</sup> Settlement discussions can be very time-consuming but can lead to a more certain resolution to a proceeding and allow for a broader range of solutions.

**3.4.2.2 Provide analysis and advice regarding resource decisions, cost/benefit analysis of investment decisions, and resource allocation**

It is very difficult to generalize about the types of analyses that the City might need. As discussed below, MRW has provided a range of such analyses to the City. MRW has found that our analysis tends to be iterative, with MRW working with the City Staff to define the problem or issue needing analysis, then developing initial sets of analyses, and then working with City Staff to refine the analyses. Sometimes, it is necessary to develop written reports that present our approach, assumptions, results, and areas for further analysis and examination. Other times, only an oral presentation is required.

As an example, MRW has been supporting the Environmental Services Department (ESD) and Public Utilities Department (PUD) with their evaluation of options regarding the 2019 expiration of the contract with Fortistar for landfill gas rights at the Miramar Landfill. The City's engineering consultant on this assignment identified opportunities to expand landfill gas collection and technically feasible alternatives for utilizing the additional landfill gas. MRW developed a financial model for comparing landfill-gas-to-energy alternatives, which involved forecasting wholesale and retail electricity rates to estimate the net benefits of the different approaches. The model also identified the net benefits accruing to both the ESD and PUD under the existing arrangements and provided the flexibility to analyze different scenarios that may be developed through a memorandum of understanding between the departments. MRW then drafted a report presenting our results and conclusions.

**3.4.2.3 Develop and defend a CCA**

The City is in the early stages of considering whether to pursue creation of a CCA. MRW understands that this RFP does not request a proposal to develop a feasibility study for a CCA. However, MRW understands that the City may need assistance with evaluation of a feasibility study (i.e., a "peer review" of the feasibility study). Such a review would require careful analysis of the feasibility study, working with the authors of the feasibility study to fully understand the key assumptions behind the analysis, testing to see if those assumptions are reasonable, and testing the results under alternate sets of assumptions (assuming that the models from the feasibility study are available). Typically, the peer review is documented by a short report.

If the City chooses to pursue a CCA, the City would need to develop a comprehensive implementation plan that is required by the CPUC. The implementation plan must specify the organizational structure of the program, its operations, and its funding; rate setting and other costs to participants; provisions for disclosure and due process in setting rates and allocating costs among participants; methods for entering and terminating agreements with other entities; rights and responsibilities of program participants (e.g., shutoff procedures, credit issues); program termination provisions; a descriptions of the financial, operational, and technical capabilities of third-party electricity suppliers; a statement of intent; and provisions for universal access, reliability, equitable treatment of all customer classes, and compliance with all legal

requirements. Once the City submits the plan to the CPUC, it may need to actively advocate on behalf of the CCA. The level of effort for such activities would depend entirely on the questions received from the CPUC and the pushback the City received from intervenors and SDG&E.

If the CPUC approves the implementation plan, the City would decide whether or not to proceed with establishing the CCA program. If it chose to proceed, it would need to enter into a service agreement with SDG&E, provide a bond payment (or evidence of insurance) to SDG&E, and then register with the CPUC as a CCA. The City would additionally need to issue RFPs for service vendors, develop supply portfolios, establish customer services centers, finalize customer rates, and procure or develop back-office services (e.g., scheduling coordination, billing, load forecasting, power purchasing, etc.).

Once the CCA is up and running, the City will likely need to defend its market share and control its costs through participation in various CPUC proceedings to ensure that SDG&E is properly allocating generation-related costs to its generation rates, and that rules governing competition and collaboration are observed. In addition, since the CCA's customers would have to pay exit fees to SDG&E, the City would likely want to participate in proceedings at the CPUC that set the level of exit fees. Joining a coalition to pursue these efforts is likely a cost-effective strategy.

MRW would be available to provide many of these services and to work with others to ensure the City's interests are defended.

#### **3.4.2.4 Develop and defend a REN**

The MRW Team would be available to assist the City with development and advocacy regarding a Regional Energy Network. Tierra Resource Consultants would take the lead on this effort. The following describes a potential approach for this effort.

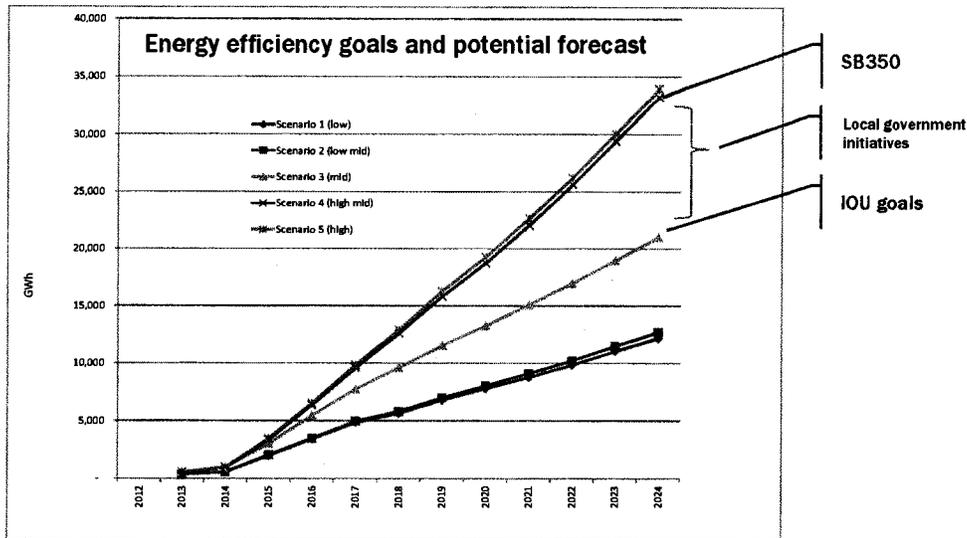
##### *Providing strategic REN development guidance*

The MRW Team will be able to assist with various components of REN formation, including identifying where market support and development are needed and design the overall technical, administrative and operational components of the REN and associated programs. Our support for defining a regional energy network can include the following activities:

- 1. Assess the current market.** This effort includes an assessment of current market offering from SDG&E and other delivery options to help identify market gaps. For example, the 2015 SDG&E portfolio of DSM related programs includes 77 programs touching most market sectors with a total operating budget of \$119M. Although extensive, this portfolio lacks multiple components. Specifically, the funding to implement innovative financing and water-energy nexus related activities only accounts for 0.2% and 0.4% of budget, respectively. Similarly, the budget for integrated demand side management (IDSM) activities are only 0.2% of planned spend. The capacity to use innovative financing mechanisms and integrated resource approaches will become increasingly important and represent a potential value adder for regional energy networks.

2. **Forecast trends.** Implementing the goals of Senate Bill 350 will increase the demand for energy efficiency related services, and new sources of funding may emerge. The figure below shows the energy efficiency forecast used by planners at the IOUs, CPUC, the California Energy Commission, and the California Air Resources Board.

**Figure 1: Energy Efficiency Goals and Potential Forecast**



The middle line in Figure 1 shows the CPUC energy efficiency goal that the current portfolio of IOU programs is designed to meet. The top line can be interpreted as the requirements of SB 350. The increasing gap between the middle and top line forecasts shows the incremental energy efficiency that will need to be implemented through new market initiatives, including REN related activities. This may also indicate the magnitude of new funding opportunities, such as funds available through the investment plans for cap-and-trade auction proceeds. Both the gap in efficiency savings and the potential for new funding will impact local governments and their associated organizations.

3. **Include all resources.** In addition to increased energy efficiency targets, there are significant goals to reduce GHG emissions and an increasing demand for water conservation. Future REN design may have the opportunity to effectively address these challenges through integration with various city planning activities, including support for the infrastructure required to accommodate the electrification of transportation via coordination with local transportation plans, partnering with water agencies to achieve water conservation and water-energy nexus objectives, or coordinating with local housing authorities to embed efficiency and conservation in regional housing needs assessments.
4. **Utilize regional attributes.** Through close association with local organizations (e.g., SANDAG) and related city planning efforts (e.g., city general plans, water, transportation, land use, and air quality plans), regional energy networks can be well positioned to integrate sustainability into redevelopment and expansion projects. These relationships can be

leveraged to develop more projects, and projects with a higher sustainability value, in a way that best serves broader community goals.

#### *Prepare for REN Implementation*

To assist the City in preparing for a REN implementation the MRW Team can provide the following:

- Develop and vet potential programs across all market sectors and constituent needs such that the incremental value of the REN is clear.
- Preparing applications for formation of a REN, including:
  - Preparation of work papers, interaction with the technical resources including the California Technical Forum (CalTF) and other Energy Division consultants, E3 calculators, and other required ancillary documentation;
  - Providing analytical and policy support to respond to issues raised by CPUC and other interested parties (e.g., SDG&E);
  - Identify and develop related grants and funding, opportunities that will benefit the REN;
  - Assistance with soliciting external counsel for REN operation and implementation;
  - Developing RFPs for program implementers and, possibly, administrators;
  - Evaluating proposals and providing recommendations; and
  - Negotiating scopes of services for selected vendors.

#### *Support for ongoing regulatory activities*

To assist the City in CPUC regulatory proceedings on issues such as the Rolling Portfolio, IDSM, and water-energy nexus proceedings, the MRW Team will provide the following:

- Advance the City's agenda at various workshops proceedings and intervene on actions that may adversely impact the City;
- Providing expert witness testimony to various regulatory agencies as needed;
- Assisting with litigation support on REN related actions;
- Advocate on behalf of City's interests with Commissioners and Advisors, through briefs, comments, and ex parte meetings; and
- Responding to proposed decisions and comments by other interested parties.

#### **3.4.2.5 Bill Review and Tariff Analysis**

To help the City ensure that its utility accounts are being billed correctly, to identify billing anomalies that may indicate equipment issues and to suggest tariff changes that may reduce costs for particular accounts, the MRW Team proposes to provide bill review and tariff analysis services to the City.

- Perform quarterly review of roughly 3,000 City accounts to identify usage continuity issues and other anomalies and also identify if there is a possibility of a change to a different tariff. We expect that at least half of the accounts will have to remain on the current tariff due to limitations in the tariffs.

**Proposal to Furnish the City of San Diego with Energy Consultant Services**

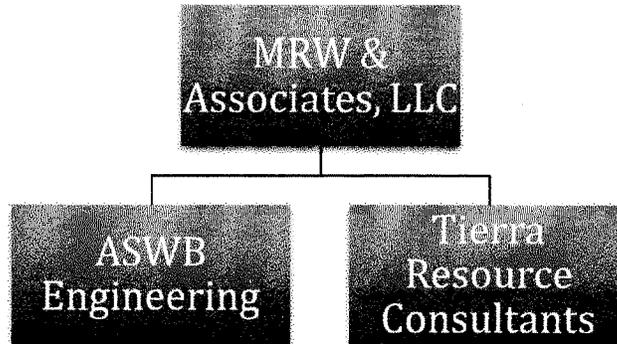
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- Process estimated 1,500 selected accounts on a quarterly basis to compare applicable rates and tariffs to identify optimal tariffs for reviewed accounts.
- Provide reports to the City presenting results of bill review and tariff analysis.

### 3.4.3 Organization Chart and Staffing Profile

MRW has assembled a strong team to provide these services to the City. The following figure presents the organization of the MRW Team.

**Figure 2: Overall Organization Chart for MRW Team**



MRW would provide overall project management. In addition, MRW would take the lead in providing expert witness testimony and representation on rate, policy, and resource procurement activities. MRW would also provide analytical support for resource decisions facing the City. Finally, MRW would provide assistance regarding the review and development of a CCA. MRW's subcontractor, Tierra Resource Consultants, would take the lead on REN development and on representation of the City in energy efficiency proceedings. If necessary, MRW would be available to provide expert witness testimony on energy efficiency issues in addition to any testimony provided by Tierra. MRW's other subcontractor, ASWB Engineering, would take the lead on bill and tariff review. The following table summarizes the key members of the MRW team, their positions within each firm, their education, years of experience, and task areas in which they would contribute.

**Table 2: Organization Chart for MRW Team**

MRW	Position	Education	Years of Experience	Task Areas
<b>William Monsen</b>	Principal	B.S., Engineering Physics M.S., Mechanical Engineering	27 years (MRW) 8 years (PG&E)	Overall Project Management; Expert Witness Testimony (Rate and Resource issues); Rate and tariff evaluation
<b>Mark Fulmer</b>	Principal	B.S., Mechanical Engineering M.S., Mechanical Engineering	17 years (MRW) 10 years (Various)	CCA evaluation; Expert Witness Testimony (exit fees)
<b>David Howarth</b>	Principal	B.S., Economics and Biology M.S., Energy & Resources	20 years (MRW) 3 years (ICF)	Economic analysis of energy projects and investments

**Proposal to Furnish the City of San Diego with Energy Consultant Services**

MRW	Position	Education	Years of Experience	Task Areas
<b>Laura Norin</b>	Senior Project Manager	B.S., Physics M.S., Applied Physics	11 years (MRW)	Assist with expert witness testimony; rate forecasting
<b>Anna Casas</b>	Senior Associate	M.S., Engineering and Management of Renewable Energy B.S./M.S., Industrial Engineering	1 year (MRW) 7 years (Various)	Assist with rate forecasting and economic analysis
<b>Naina Gupta</b>	Associate	M.S., Energy and Resources B.Tech, Electronics and Communication Engineering	2 years (MRW)	Assist with expert witness testimony, technical and rate analysis; regulatory monitoring
<b>George Randolph</b>	Associate	M.S. Atmospheric Science B.S. Mechanical Engineering	1 year (MRW)	Assist with expert witness testimony, technical and rate forecasting.

**Subcontractors**

Subcontractor	Key Personnel	Position	Education	Experience	Task Area
<b>ASWB</b>	Dennis Rowan	Principal Engineer	B.S., Mechanical Engineering	20 years (ASWB)	Bill analysis and analysis of tariffs
	Mark Hinrichs	Senior Electrical Engineer	B.S., Electrical Engineering	27 years (ASWB)	Bill analysis and analysis of tariffs
	David Lu	Mechanical Engineer II	B.S., Mechanical Engineering	8 years (ASWB)	Bill analysis and analysis of tariffs
	Salvador Heredia	Mechanical Engineer	B.S., Mechanical Engineering	3 years (ASWB)	Bill analysis and analysis of tariffs
<b>Tierra Resource Consultants</b>	Floyd Keneipp	Principal	B.S., Industrial Engineers MBA, Finance and Marketing	3 Years (Tierra) 26 year (Various)	REN Strategy, Formation, and Regulatory Support
	Marshall Keneipp	Principal	B.S., Mechanical Engineering	3 Years (Tierra) 28 year (Various)	REN Strategy, Formation, and Regulatory Support
	Tom Hines	Regulatory Specialist	M.S., Environment Planning B.S., Psychology	3 Years (Tierra) 17 year (Various)	REN Formation and Regulatory Support
	Gavin Hastings	Director	B.A., Sociology	2 Years (Tierra)	REN Formation

<b>Subcontractor</b>	<b>Key Personnel</b>	<b>Position</b>	<b>Education</b>	<b>Experience</b>	<b>Task Area</b>
				7 year (Various)	
	Eric Shum	Senior Consultant	B.S., Mechanical Engineering B.S., Materials Science	1 Years (Tierra) 3 year (Navigant)	REN Formation
	Mike Yim	Market Specialist	M.S., Industrial Engineering and Supply Chain Management, 2005 B.S., Industrial Engineering and Operations Research	3 Years (Tierra) 8 year (Various)	REN Formation

### **3.4.4 Experience Working with the City of San Diego**

Over the 27 years that MRW has provided energy consulting services to the City, MRW has provided high-quality work product across a wide range of topics. MRW consultants have worked with City Staff and the City Attorney’s office to represent the City’s interests in regulatory matters at the CPUC, analyzed the economic impacts on the City of investments in power and other energy projects, evaluated the City’s loads and assisted the City in obtaining commodity energy services from a supplier other than SDG&E, assisted the City in its negotiations of franchise fees with SDG&E, advocated for the City in its efforts to expand the City’s undergrounding of overhead electric and telecommunications lines, and provided prompt expert advice on issues that required immediate analysis and advice. The following section discusses some of the myriad consulting services MRW has provided to the City.

#### **Representation of City of San Diego before CPUC in General Rate Cases and Other Rate Setting Proceedings**

MRW has represented the City in at least seven different rate setting proceedings at the CPUC. MRW’s representation has resulted in significant cost savings to the City, new tariff options that allow the City to pursue new solar and energy efficiency projects to meet the City’s renewable energy goals, and protection from onerous proposed changes in rates that would have resulted in either significant cost increases or unwieldy changes in operations for City departments.

- Summary of activities
  - o Analyzed issues proposed by SDG&E and other parties, worked with the City’s departments and City Attorney to develop litigation positions, prepared affirmative expert witness testimony, responded to other parties’ testimonies in rebuttal testimony, assisted with settlement negotiations (including analysis of alternative settlement positions), and provided litigation support.
  - o Proposed rate designs that are beneficial to the City

- Negotiated on behalf of the City in settlement discussions regarding rate design and revenue allocation
- List of issues
  - Revenue allocation and rate design
  - Bill impacts of alternative rate designs
  - Propose new tariffs
  - Advocated for volumetric-based tariffs to improve cost-effectiveness of solar and energy efficiency investments
  - Critical peak pricing
  - Time-of-Use periods
- List of proceedings in which MRW presented expert witness testimony (Mr. Monsen was an expert witness for the City in each of the following SDG&E rate setting proceedings)
  - SDG&E Applications 00-10-045 and 01-01-044 (2002)
  - SDG&E Application 05-01-016 et al. (2005)
  - SDG&E Application 05-02-019 (2005)
  - SDG&E Application 07-01-047 (2007)
  - SDG&E Application 08-11-014 (2009)
  - SDG&E Application 11-10-012 (2012)
  - SDG&E Application 14-01-027 (2014)

#### **Representation before CPUC in Distributed Generation (DG) Proceedings**

MRW has provided expert witness testimony and regulatory support to the City in order to allow the City to pursue distributed generation projects at City facilities. MRW's assistance has included advocacy in workshops addressing interconnection requirements for DG systems, aggregation of City loads to be served by net metered generation, providing expert witness testimony recommending that the CPUC require SDG&E to set aside capacity for DG in its resource planning activities, and working with the City Attorney to eliminate the imposition of exit fees on new DG projects.

- Summary of activities
  - Participated via expert witness testimony and representation in workshop process to support the City's positions.
  - Wrote comments on proposed decisions
- List of issues
  - Interconnection requirements for City-specific configurations
  - Advocated for ability of City to net meter solar projects against multiple adjacent meters
  - Overturned proposal for exit fees on the City's behind-the-meter generation projects
  - Advocated against exit fees for proposed City generation projects
  - Advocate for ability of City to develop multiple DG projects at one location
- List of proceedings in which MRW presented expert witness testimony (Mr. Monsen was an expert witness for the City in each of the following DG proceedings)
  - CPUC Rulemaking 01-10-024 (2003)
  - CPUC Rulemaking 04-03-017 (2005)
  - CPUC Rulemaking 04-04-003 (2004)

- Other proceedings in which MRW participated on behalf of City
  - o CPUC Rulemaking 11-05-005 (2013)

### **Economic evaluation of DG programs and projects**

- Summary of Activities
  - o Analyses and determination of most financially beneficial long-term strategies for landfill gas and cogeneration at Miramar Landfill and NCWRP (2015)
  - o Assisted with negotiations over potential acquisition of Fortistar assets (2015)
  - o Assisted City Staff with efforts to market excess power from North City and elsewhere (2014)
  - o Assist City Staff with preparation of proposals to sell power to SDG&E from photovoltaic facilities at City reservoirs (2007)
  - o Assist City Staff with preparation of proposals to sell power to SDG&E from in-line hydroelectric facilities (2005)
  - o Assist City Staff with evaluation and assessment of risks associated with construction of gas-fired peaking power plant (2002)
  - o Analyzed options for maximizing value of excess energy from Pt. Loma (2002)
  - o Assist City Staff with assessment of options for selling excess power from Pt. Loma facility (1998-1999)
- Reports and Analyses
  - o Miramar Landfill: Assessment of LFGTE Options and Net Benefits (2016)
  - o Analysis of Value to City of NCCF Ownership (2014)
  - o Analysis of Feed-In Tariff and Renewable Market Adjusting Tariff for NCCFE (2013)

### **Advocacy at CPUC re: existing solar installations**

- Summary of activities
  - o Testimony in rate design proceedings opposing non-coincident demand charges, supporting volumetric rates, and advocating for “solar-friendly” tariffs
  - o Assisted City attorney and staff in negotiations to establish “solar-friendly” tariff
- List of proceedings in which MRW presented expert witness testimony (Mr. Monsen was an expert witness for the City in each of the following proceedings involving solar power issues)
  - o SDG&E Application 08-11-014 (2009)
  - o SDG&E Application 11-10-012 (2012)
  - o SDG&E Application 14-01-027 (2014)

### **Advising on economics of additional solar development**

- MRW assisted a large landholder in San Luis Obispo evaluate the potential for ground-mounted solar project development, estimating solar insolation levels, project costs, and potential revenue.

- MRW assisted an existing natural gas generation owner evaluate an opportunity to develop a utility-scale solar energy project on adjacent property, providing an assessment of technologies and project costs.
- On behalf of a large cement producer MRW evaluated the cost savings potential of installed major solar PV for behind-the-meter use and assisted the client review bids to provide the PV

**Advising on tariff rate schedules for all electric and gas accounts**

- MRW has not provided extensive advice to the City regarding its rate schedules for its electric and gas accounts. As a result, MRW has added a subcontractor, ASWB Engineering, to our team. ASWB will take the lead on this task. ASWB has performed rate analysis for PG&E, SCE, SDG&E as well as some municipalities and has also performed a large number of these analyses to assist customers evaluate Direct Access opportunities. ASWB has developed a number of spreadsheet programs over the years for this purpose and has the capacity and flexibility to analyze rates based on monthly bill information and/or interval data files.

**Review proposed CCA study recommendations and impacts**

- List of feasibility studies
  - o Feasibility study of a Southern California CCA (2007)
  - o Economic assessment of CCA for the South San Joaquin Irrigation District (2013-14)
  - o Feasibility of Alameda County CCA (2016 - ongoing)
- List of peer reviews
  - o Various CCA feasibility studies for cities in San Francisco Bay Area (2006-2015)
  - o San Joaquin Valley (2006)
  - o Marin Clean Energy (2008)
  - o Sonoma Clean Power (2013)
  - o CleanPowerSF (2014)
  - o County of San Mateo (2016)
  - o County of Santa Cruz (2016-ongoing)
- Independent assessment of benefits to joining proposed CCAs
  - o County of Marin and various cities and towns in Marin (2008-2014)

**Represent Proposed or Existing CCAs**

- List of testimonies for CCAs
  - o Local Government Commission Coalition (2004)
  - o City and County of San Francisco (2004)
  - o Marin Clean Energy and others (2007)
  - o Direct Access Customer Coalition, Alliance for Retail Energy Markets, and City and County of San Francisco (2010)

**Other Analytical and Advocacy Support for City**

- Represented City in CPUC Rulemaking regarding undergrounding electric distribution facilities (2000-2001)
- Assisted City with developing bidding strategy for CEC New Renewables Funding (2000)

### **3.4.5 Knowledge of the City of San Diego's Electric and Gas Accounts, Account Tariffs, and Energy Program**

MRW has developed models of the City's electric usage and costs to support its representation of the City in SDG&E's General Rate Case proceedings. These models simulate the vast majority of the City's electric accounts in order to allow the City and MRW to understand the impacts of alternate revenue allocation and rate design proposals on the City's electric costs.

### **3.4.6 Experience with Preparing Testimonies at California Public Utilities Commission**

The MRW team has extensive experience in the preparation and defense of expert witness testimony before the CPUC and other regulatory agencies. Between them, William Monsen, Mark Fulmer, and Laura Norin have presented 175 pieces of expert witness testimony, with the majority of that testimony being presented before the CPUC. MRW's testimony has been instrumental in establishing policy and rates that are beneficial to the City and MRW's other clients.

The following table summarizes the range of testimony presented by the MRW Team in different jurisdictions:

**Table 3: Testimony Topics For MRW Team By Jurisdiction**

	Monsen	Fulmer	Norin
Electric Resource Planning	CPUC	CPUC	
Electric Revenue Allocation and Rate Design	CPUC, CO PUC	CPUC, ACC, WUTC	CPUC
Electric Revenue Requirements	CPUC	CPUC	CPUC
Electric Retail Competition		ACC, CPUC	
Net Energy Meeting	CPUC, PUCN	ACC, CPUC, NMPRC, WUTC	
Electric Resource Procurement	CPUC, CO PUC, OPUC, PUCN		CPUC
Natural Gas Procurement		CPUC	
Natural Gas Revenue Requirements	CPUC	CPUC,	
Natural Gas Revenue Allocation and Rate Design	CPUC	CPUC	
Industry Restructuring	CPUC		
Mergers	HPUC, PUCN		
Demand Response	CPUC		
Energy Efficiency	CEC	HPUC, RIPUC	
Project Valuation	Sonoma County		

Legend:

ACC: Arizona Corporation Commission

CEC: California Energy Commission

CPUC: California Public Utilities Commission

CO PUC: Colorado Public Utilities Commission

HPUC: Hawaii Public Utilities Commission MDPUC: Massachusetts Department of Public Utilities

NMPRC: New Mexico Public Regulation Commission

OPUC: Oregon Public Utilities Commission

PUCN: Public Utilities Commission of Nevada

WUTC: Washington Utilities and Transportation Commission

### 3.4.7 Understanding of City of San Diego's Energy and Climate Action Goals

In December 2015 the City of San Diego adopted a Climate Action Plan that establishes greenhouse gas (GHG) emissions reductions targets that are 15% below the 2010 baseline in 2020 and 50% below the 2010 baseline by 2035. These targets are in line with meeting the Governor's long-term goal of reducing GHG emissions in California to 80% below 2010 baseline levels by 2050. While existing state and federal programs contribute significantly to GHG reductions over this time frame, local initiatives will be required to meet the adopted targets. The City has identified five local strategies for reducing GHG emissions:

**Strategy 1: Energy & Water Efficient Buildings**

Reduce residential, non-residential, and municipal energy and water consumption through mixture of regulatory mandates and incentives.

**Strategy 2: Clean & Renewable Energy**

Achieve 100% renewable energy city-wide by 2035 through combination of on-site and large-scale renewables, with local installations to support job creation. Potential use of Community Choice Aggregation (CCA).

**Strategy 3: Bicycling, Walking, Transit & Land Use**

Reduce vehicle miles travelled (VMTs), improve mobility, and enhance vehicle fuel efficiency through changing land uses, community design, and other measures.

**Strategy 4: Zero Waste (Gas & Waste Management)**

Source reduction, increased recycling, and gas capture with goal of 75% waste diversion by 2020 and zero waste disposal by 2040.

**Strategy 5: Climate Resiliency**

Flexible programs, policies, and processes that can be changed to respond to unexpected events and continue to function effectively.

For years, MRW has assisted the City of San Diego pursue its clean and renewable energy goals. As discussed above, MRW has assisted the Environmental Services Department and Public Utilities Department evaluate energy projects and programs, including energy development at its Point Loma and North City facilities, at the Miramar landfill, and at other facilities including pump stations and covered reservoirs. MRW has also assisted the City Attorney's office with regulatory interventions aimed at improving the City's ability to pursue its energy goals on behalf of its citizens, including solar-friendly tariffs and rules that permit the City to use excess energy produced by its generation facilities to offset energy purchases by other City accounts.

### **3.4.8 Understanding of Past and Current California Law and Policy as it Relates to the City of San Diego's Energy and Climate Action Goals.**

California's laws and policies related to energy and climate action goals extend back to the 1974 passage of the Warren-Alquist Energy Resources Conservation and Development Act, which created the California Energy Commission (CEC) for the purpose of planning and setting standards for the development and use of energy resources. The first law concerning greenhouse gas (GHG) emissions (AB 4420) was passed in 1988 and required the CEC to prepare a GHG inventory, study the effects of climate change on the State's resources, and recommend ways to address climate change impacts.

California's renewable portfolio standard (RPS) was established in 2002 with SB 1078, which required that California utilities supply 20% of their sales with eligible renewable energy by 2017. In 2006, SB 107 accelerated this target to 20% by 2010. Governor Schwarzenegger sought to further expand the RPS target, issuing an executive order in 2008 requiring retail sellers to

meet a 33% RPS target by 2020. This RPS target was established in law with the 2011 passage of SB X1-2, which required all sellers, including public utilities and community choice aggregators, to comply with the 33% RPS by 2020. More recently, SB 350 extended the RPS to 50% by 2030, with interim requirements between 2020 and 2030.

California's climate policy was initially established by an executive order by Governor Schwarzenegger in 2005 that set a goal of reducing California's GHG emissions to 80% below 1990 levels by 2050. In 2006 the California Legislature passed AB 32, which required the California Air Resources Board (CARB) to adopt a statewide GHG emissions limit equal to 1990 levels by 2020. To implement AB 32, CARB established a cap and trade program for GHG emissions allowances, which is currently in effect. In April 2015 Governor Brown issued an executive order setting a target to reduce GHG emissions in California to 40% below 1990 levels by 2030.

Since its founding in 1986, MRW has been closely involved with the development and implementation of California's energy and climate policies. MRW has worked with renewable energy and cogeneration owners and developers on policy issues concerning implementation of rules requiring utility purchases from qualifying facilities (QFs) and the creation of RPS regulations. MRW has assisted its clients, including the City of San Diego, navigate the myriad utility programs for purchasing energy to meet their renewable energy and climate standards, including net energy metering (NEM), small generator incentive program (SGIP), feed-in tariff (FIT), renewable market adjusting tariff (REMAT), renewable auction mechanism (RAM), QF must-buy obligation, combined heat and power (CHP) settlement and procurement obligation, RPS solicitations, long-term procurement planning and all-source solicitations, and local capacity resource procurement.

### **3.4.9 Resumes for MRW Team**



MRW & Associates, LLC, offers a comprehensive portfolio of multi-disciplinary energy consulting services to financial institutions, power generators and marketers, electric and gas utilities, natural gas pipelines and producers, regulatory commissions and public agencies, as well as end-users across the areas detailed below. Our policy and analytic skills, combined with extraordinary breadth of accomplishment make MRW pre-eminent in providing a wide range of client services.

#### **POWER MARKET ANALYSIS AND CONTRACT SERVICES**

- sophisticated modeling to forecast power prices, avoided cost, and retail electric rates
- strategic analysis of regional power markets
- assessment of energy options for end-users, including power marketing and bill analysis
- negotiation and re-negotiation of power sales contracts, transmission and interconnection contracts
- integration of electric power and fuel supply contracts
- contract restructuring and mediation

#### **GAS MARKET ANALYSIS AND FUEL PURCHASE STRATEGIES**

- review of detailed supply and transport arrangements for power projects and other end-users
- assistance in developing fuels strategy and contract terms
- periodic re-assessments of contract reasonableness in light of changing market conditions
- forecasts and evaluation of gas supply and transportation costs
- analysis of North American gas market dynamics and supply/capacity/demand balance
- gas utility rate design and cost allocation

#### **PROJECT ANALYSIS**

- lender due diligence reviews and analysis of proposed power and/or gas pipeline projects
- assessment of risks and mitigation strategies
- assistance to purchasers or sellers of existing projects
- portfolio and asset valuation
- fatal flaw review of potential investments
- bid strategy and development
- workout assistance

#### **REGULATORY AND LITIGATION SUPPORT**

- intervention and representation in gas and electric proceedings at both state and federal levels
- expert witness testimony on gas- or power-related policy, financial or technical issues
- financial, economic and regulatory analysis in regulatory and commercial litigation
- establishing need for energy facilities
- legislative monitoring

MRW builds on a strong base of experience in the western U.S. (including California, the Southwest and Pacific Northwest), with additional project work elsewhere in North America and overseas.

## WILLIAM ALAN MONSEN

### PROFESSIONAL EXPERIENCE

#### **Principal MRW & Associates, LLC (1989 - Present)**

Specialist in electric utility generation planning, resource auctions, demand-side management (DSM) policy, power market simulation, power project evaluation, and evaluation of customer energy cost control options. Typical assignments include: analysis, testimony preparation and strategy development in large, complex regulatory intervention efforts regarding the economic benefits of utility mergers and QF participation in California's biennial resource acquisition process, analysis of markets for non-utility generator power in the western US, China, and Korea, evaluate the cost-effectiveness of onsite power generation options, sponsor testimony regarding the value of a major new transmission project in California, analyze the value of incentives and regulatory mechanisms in encouraging utility-sponsored DSM, negotiating non-utility generator power sales contract terms with utilities, and utility ratemaking.

#### **Energy Economist Pacific Gas & Electric Company (1981 - 1989)**

Responsible for analysis of utility and non-utility investment opportunities using PG&E's Strategic Analysis Model. Performed technical analysis supporting PG&E's Long Term Planning efforts. Performed Monte Carlo analysis of electric supply and demand uncertainty to quantify the value of resource flexibility. Developed DSM forecasting models used for long-term planning studies. Created an engineering-econometric modeling system to estimate impacts of DSM programs. Responsible for PG&E's initial efforts to quantify the benefits of DSM using production cost models.

#### **Academic Staff University of Wisconsin-Madison Solar Energy Laboratory (1980 - 1981)**

Developed simplified methods to analyze efficiency of passive solar energy systems. Performed computer simulation of passive solar energy systems as part of Department of Energy's System Simulation and Economic Analysis working group.

### EDUCATION

M.S., Mechanical Engineering, University of Wisconsin-Madison, 1980.  
B.S., Engineering Physics, University of California, Berkeley, 1977.

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20. California: The Promised Land for Renewable Energy? With Robert B. Weisenmiller, Heather L. Mehta and David Howarth. Project Finance NewsWire, Chadbourne & Parke. March 2006.
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23. California Cap-and-Trade Program Takes Shape. With Sandhya Sundararagavan and Laura Norin. Project Finance NewsWire, Chadbourne & Parke. January 2011.
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25. New California Rules May Complicate Financing of Renewable Energy Projects. With Laura Norin. Project Finance NewsWire, Chadbourne & Parke. June 2011.
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Prepared Testimony with Aldyn W. Hoekstra regarding the California-Oregon Transmission Project for Toward Utility Rate Normalization (TURN). November 29, 1990.
2. California PUC Application 90-10-003  
Prepared Testimony with Mark A. Bachels regarding the Value of Qualifying Facilities and the Determination of Avoided Costs for the San Diego Gas & Electric Company for the Kelco Division of Merck & Company, Inc. December 21, 1990.
3. California Energy Commission Docket No. 93-ER-94  
Rebuttal Testimony regarding the Preparation of the 1994 Electricity Report for the Independent Energy Producers Association. December 10, 1993.
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Prepared Testimony Regarding Transition Costs for The Independent Energy Producers. December 5, 1994.
5. Massachusetts Department of Telecommunications and Energy DTE 97-120  
Direct Testimony regarding Nuclear Cost Recovery for The Commonwealth of Massachusetts Division of Energy Resources. October 23, 1998.
6. California PUC Application 97-12-039  
Prepared Direct Testimony Evaluating an Auction Proposal by SDG&E on Behalf of The California Cogeneration Council. June 15, 1999.
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Prepared Direct Testimony of William A. Monsen on Behalf of The Independent Energy Producers Association. March 2, 2000.
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Prepared Rebuttal Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association. March 16, 2000.
9. California PUC Rulemaking 99-10-025  
Joint Testimony Regarding Auxiliary Load Power and Stand-By Metering on Behalf of Duke Energy North America. July 3, 2000.
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Prepared Direct Testimony on Behalf of Independent Energy Producers and Western Power Trading Forum. May 31, 2002.
  16. California PUC Rulemaking 01-10-024  
Rebuttal Testimony on Behalf of Independent Energy Producers and Western Power Trading Forum. June 5, 2002.
  17. Arizona Docket Numbers E-00000A-02-0051, E-01345A-01-0822, E-0000A-01-0630, E-01933A-98-0471, E01933A-02-0069  
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Testimony of William A. Monsen SDG&E's 2005 Rate Design Window Application on Behalf of the City of San Diego. June 24, 2005.
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35. California PUC Application 05-01-016 et al.  
Prepared Testimony of William A. Monsen Regarding SDG&E's Critical Peak Pricing Proposal on Behalf of the City of San Diego. October 5, 2005.
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40. Public Utilities Commission of Nevada Dockets 06-06051 and 06-07010  
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Testimony of William Monsen on Behalf of the Independent Energy Producers Association in Track III of the Long-Term Procurement Planning Proceeding Concerning Bid Evaluation. August 4, 2011.
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Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association, Colorado Energy Consumers and Thermo Power & Electric LLC. June 4, 2012.
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- Cross Answer Testimony of William A. Monsen on Behalf of Colorado Independent Energy Association, Colorado Energy Consumers and Thermo Power & Electric LLC. July 16, 2012.
59. California PUC Rulemaking 12-03-014  
Reply Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Track One of the Long-Term Procurement Proceeding. July 23, 2012.
  60. California PUC Application 12-03-026  
Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association concerning Pacific Gas and Electric Company's Proposed Acquisition of the Oakley Project. July 23, 2012.
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Testimony of William A. Monsen on Behalf of Snow Summit, Inc. Concerning Revenue Requirement, Marginal Costs, and Revenue Allocation. July 27, 2012.
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Rebuttal Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Concerning Pacific Gas and Electric Company's Proposed Acquisition of the Oakley Project. August 3, 2012.
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Opening Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Regarding Phase 1A of the 2014 Long-Term Procurement Planning Proceeding. September 24, 2014.
76. CPUC Application 14-01-027  
Testimony of William A. Monsen on Behalf of the City Of San Diego Concerning the Application of SDG&E for Authority to Update Electric Rate Design. November 14, 2014.
77. CPUC Application 14-01-027  
Rebuttal Testimony of William A. Monsen on Behalf of the City Of San Diego Concerning the Application of SDG&E for Authority to Update Electric Rate Design. December 12, 2014.

78. CPUC Rulemaking 13-12-010  
Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Regarding Supplemental Testimony in Phase 1A of the 2014 Long-Term Procurement Planning Proceeding. December 18, 2014.
79. CPUC Application 14-06-014  
Opening Testimony of William A. Monsen on Behalf of the Independent Energy Producers Association Regarding Standby Rates in Phase 2 of SCE's 2015 Test Year General Rate Case. March 13, 2015.
80. CPUC Application 14-04-014  
Opening Testimony of William A. Monsen on Behalf of ChargePoint, Inc. Regarding SDG&E's Vehicle Grid Integration Pilot Program. March 16, 2015.
81. Public Utilities Commission of the State of Hawaii Docket No. 2015-0022  
Direct Testimony on Behalf of AES Hawaii, Inc. July 20, 2015.
82. Federal Energy Regulatory Commission Docket Nos. EL02-60-007 and EL02-62-006 (Consolidated)  
Prepared Answering Testimony of William A. Monsen on Behalf of Iberdrola Renewables Regarding Rate Impacts of the Iberdrola Contract. July 21, 2015.
83. Public Utilities Commission of Nevada Docket Nos. 15-07041 and 15-07042  
Prepared Direct Testimony of William A. Monsen On Behalf of The Alliance for Solar Choice (TASC). October 27, 2015.

## PRESENTATIONS

1. Southwest and Nevada Power Markets: Opportunities and Obstacles. The Eleventh Independent Energy Producers Meeting, Fallen Leaf Lake, CA. October 13, 1992.
2. Bid Evaluation Process for Power Solicitations. Infocast, Inc. Conference. San Francisco. March 15-16, 1993.
3. The Re-Opening of the California Market. The Eighth Annual Cogeneration & Independent Power Market Conference. March 23, 1993.
4. Effective Procedures for Soliciting and Awarding Bids: The Private Developer's Perspective. Private Sector Power in Indonesia. Organized by AIC Conferences. Jakarta. February 7-8, 1994.
5. Determining Market Clearing Prices. Pacific Coast Operators Group. September 15, 1994.
6. Testing the Cost - Effectiveness of the Pilgrim Nuclear Plant. Coalition of Non-Utility Generators. September 28, 1994.
7. Utility Stranded Investment and Exit Fees: Understanding How Much It May Cost You to Leave Your Local Utility. October 21, 1995.
8. Financing Options for Demand-Side Management Programs: Risk-Reward Tradeoffs for Ratepayers. With Meg Meal and Anne Selting. Paper ID #357. ACEEE. February 16, 1996.
9. How Much are the Assets Worth? With Robert B. Weisenmiller, Ph.D. The Purchasing Power Generation Facilities in California Seminar. San Francisco. August 9, 1996.
10. Competition Transition Charge/Stranded Cost Proceedings: Opportunities for Intervention. With G. Alan Comnes. San Francisco. October 30, 1996.
11. IPP Perspective on How Electric Industry Restructuring Affects Contract Renegotiation. Successful Strategies for Negotiation Purchased Power Contracts Seminar. Washington, DC. With G. Alan Comnes. January 27, 1997.
12. IPP Perspective on How Electric Industry Restructuring Affects Contract Renegotiation. Infocast. May 4, 1998.
13. Valuation of Purchased Assets and Marketing Strategies. Electric Utilities Environmental Conference (EPRI). Tucson, AZ. January 11, 1999.
14. Unregulated Power Markets. Warburg Dillon Read Lease Finance Conference. San

Diego. February 8, 1999.

15. Purchasing Commodity Power from Third Parties: Are We Having Fun Yet? World Energy Engineering Congress Association of Energy Engineers. Atlanta. October 21, 1999.
16. Power Procurement: Past Models and Emerging Players. West Coast Management Congress Association of Energy Engineers. San Jose. June 22, 2000.
17. It Can (and Did) Happen Here: The California Energy Crisis of 2000-2001. Women's Transportation Seminar. May 23, 2001.
18. Energy Services Procurement: A Few Lessons Learned. With Suzie Kito. August 7, 2001.
19. Standby Rates in California: We Just Have to be Different. National Association of Energy Service Companies (NAESCO). Chicago. May 15, 2002.
20. Implementing a Community Aggregation Program – Part 1. CCA. June 2, 2003.
21. Implementing a Community Aggregation Program – Part 2. CCA. June 2, 2003.
22. Panel Presentation. Chadbourne & Parke 18th Annual Global Energy and Finance Conference. Deer Valley, Utah. June 14-15 2007.
23. Carbon Policy as a Market Driver. Independent Energy Producers Association. September 25, 2007.
24. Paying for Electrons: Overview of Utility Tariffs and Rates. Mitsubishi Solar Conference. September 19, 2008.
25. Review of Business Plan for Marin Clean Energy. Sausalito, CA. November 18, 2008.
26. Criteria and Screening Process. EECBG. As Consultant to City of San Diego. June 25, 2009.
27. Criteria and Scoring Proposal. EECBG. As Consultant to City of San Diego. July 2, 2009.
28. Responses to Committee Data Requests. As Consultant to City of San Diego. July 10, 2009.
29. The Effect of California's Changing Regulatory Environment on Existing and New Qualifying Facilities. WSPA. August 19, 2009.
30. Impact of California Environmental Regulations on Energy Facility Valuation. International Conference on the Valuation of Plant Machinery and Equipment. San Francisco. October 7, 2009.

31. Analysis of Service Agreement and Financial Risk to MEA. Consultant to Marin City Manager's Association. November 23, 2009
32. Analysis of Service Agreement and Financial Risk to MEA. Consultant to Marin City Manager's Association. December 1, 2009.
33. Analysis of Service Agreement and Financial Risk to MEA. Consultant to Marin City Manager's Association. December 7, 2009.
34. Risks to Novato of Participation in Marin Clean Energy CCA. September 26, 2011.
35. California Market Trends: Uncertainties and Opportunities. Independent Energy Producers Association. Fallen Leaf Lake. October 4, 2011.
36. Benefits & Risks to Richmond Participation in Marin Clean Energy CCA. October 25, 2011.
37. Interaction of Natural Gas and Electricity Markets: A California Perspective. CRESPEC October 26, 2011
38. New Wind Curtailment Rules may Complicate Project Finance for Lenders and Developers. EUEC. January 31, 2012.
39. Curtailment of Renewable Variable Energy Resources. EUCI Webinar. With Steven C. McClary and Brandon Charles. April 26, 2012.
40. Cost of Generation Workshop: Financing Assumptions. Staff Workshop on the Cost of New Renewable and Fossil-Fueled Generation in California. With Richard McCann. March 7, 2013.
41. California's Renewable Portfolio Standard. Northwest Power and Conservation Council. California Power Markets Symposium. September 5, 2013.
42. The Mix: Facts, Figures, and the Future. Independent Energy Producers Annual Meeting, Fallen Leaf Lake, CA. Sept. 2014

## DAVID N. HOWARTH

### PROFESSIONAL EXPERIENCE

#### **Principal MRW & Associates, LLC (9/96 - Present)**

Specializes in quantitative and qualitative analysis of energy economics, policy and technology issues. Clients include energy project developers, owners, lenders, public agencies, and end users. His current focus is on utility procurement issues and energy project development. He is an expert on renewable energy policy and has worked with a number of renewable energy project developers in the western states and Hawaii, providing analytical support to their development efforts. Activities have included construction of pro forma financial models, bid support for utility RFOs and analysis of QF energy pricing for existing projects. He has also worked with customers and distributed generation suppliers to analyze supply options and utility bill impacts. He has participated in policy studies on the need to replace aging generation infrastructure in California and on the status of nuclear generation and waste storage facilities. Other work has included litigation support, market due diligence, and contract negotiation support.

#### **Associate RDC, Inc. (9/93 - 9/94) Independent Consultant (9/94 - 9/96)**

Provided management consulting services, including strategic business planning and subcontractor management, to developer of a flywheel energy storage system for transportation and stationary applications. Performed market study for manufacturer of small, advanced gas turbines. Researched electric utility, oil and gas, and manufacturing industries to identify technical and market opportunities for small gas turbines. Completed assessment of emerging market for fiber optic communications installed along electric utility rights-of-way. Identified and characterized industrial processes for which electricity-to-gas energy substitution opportunities exist to support utility demand-side management efforts.

#### **Analyst Global Change Unit, ICF Incorporated (9/89 - 7/93)**

Performed quantitative analyses and wrote reports and briefings for large consulting firm providing environmental and economic services to governmental and private-sector clients. Co-authored EPA study of the potential for renewable sources of electricity to reduce air pollution. Developed models to analyze the long-term impacts of U.S. government programs to increase carbon storage in forests and to reduce greenhouse gas emissions from agricultural sources. Participated in a variety of regulatory studies of selected toxic substances for USEPA. Analyzed the operations and financial performance of multinational corporations to determine profit

levels consistent with a fair treatment of transfers with their foreign subsidiaries.

**EDUCATION**

M.A., Energy and Resources Group, University of California, Berkeley, 1996  
B.A., Economics and high honors in Biology, Wesleyan University, 1989

## PUBLICATIONS

1. The California Energy Market. With Randy Wu, El Paso Energy. INGAA. March 3, 1998.
2. Wind Projects Advance in California. With William A. Monsen and Heather L. Vierbicher. Project Finance NewsWire, Chadbourne & Parke. December 2001.
3. CEC Renewable Generation Data – 1983-2000. (figure) February 1, 2002.
4. Windpower Contracting Developments in California. With William A. Monsen and Heather L. Vierbicher. Revised February 2002.
5. Wind Power Increasing Its Hold in California. With William A. Monsen and Heather L. Vierbicher. Natural Gas, Volume 18, Number 8. March 2002.
6. California: The Promised Land for Renewable Energy? With Robert B. Weisenmiller, William A. Monsen, and Heather L. Mehta. Project Finance NewsWire, Chadbourne & Parke. March 2006.
7. Nuclear Power in California: Status Report. With Robert B. Weisenmiller and Steven C. McClary. California Energy Commission, CEC-150-2006-001-F. March 2006.
8. Approaches to Resource Adequacy for the Western Interconnection. With William A. Monsen and Laura B. Norin. Report for the Western Governors' Association. (Final Draft) August 2006.
9. A New Transmission Superhighway Takes Shape in the West. With Robert B. Weisenmiller. Project Finance NewsWire, Chadbourne & Parke. February 2010.
10. Many Options for Solar Developers in California. With Heather Mehta and Laura Norin. Project Finance NewsWire, Chadbourne & Parke. September 2010.
11. Additional Power Needed in Southern California. With William A. Monsen. Project Finance NewsWire, Chadbourne & Parke. October 2013.
12. Renewables Face Daytime Curtailments in California. With William A. Monsen. Project Finance NewsWire, Chadbourne & Parke. November 2014.
13. Renewable Energy Faces Daytime Curtailment in California. With Bill Monsen. North American Windpower. December 2014.
14. California's March to 50% Renewables. With Mark Fulmer. Project Finance NewsWire, Chadbourne & Parke. November 2015.

## **PRESENTATIONS**

1. **Just the Facts: Resource Planning and Procurement. Independent Energy Producers Annual Meeting, Fallen Leaf Lake, CA. September 18, 2014.**
2. **Panel Presentation on Energy Resource Procurement. Infocast's 3rd Annual California Energy Summit, San Francisco, CA. May 12, 2015.**

## **MARK E. FULMER**

### **PROFESSIONAL EXPERIENCE**

#### **Principal MRW & Associates, LLC (1999 - Present)**

Conduct economic and technical studies in support of clients involved in regulatory and legislative proceedings and power project development. Advise clients on the economic issues associated with taking electricity and natural gas service from non-utility sources or self-generating power. Work includes expert testimony on rate matters; economic analysis of end-use energy-efficiency projects, retail rate and wholesale price forecasting, and pro forma analysis of cogeneration and distributed generation facilities.

#### **Project Engineer Daniel, Mann, Johnson & Mendenhall (1996 - 1999)**

Acted as project manager and technical advisor on energy efficiency projects. Work included management of PG&E program to promote innovative energy efficient technologies for large electricity users. Coordinated the implementation of an intranet-based energy efficiency library. Directed technical and market analyses of small commercial and residential emerging technologies.

#### **Associate Tellus Institute (1990-1996)**

Advised public utility commissions in five states on electric and gas industry deregulation issues. Submitted testimony on the rate design of a natural gas utility to the Pennsylvania Public Utilities Commission. Testified before the Hawaii PUC on behalf of a gas distribution utility concerning a competing electric utility's demand-side management plan. Analyzed national energy policies for a set of non-governmental agencies, including critiquing the DOE's national energy forecasting model. Developed model to track transportation energy use and emissions and used the model to evaluate state-level transportation policies. Developed model to track greenhouse gas emission reductions resulting from state-level carbon taxes.

#### **Research Assistant Center for Energy and Environmental Studies, Princeton University (1988-1990)**

Researched the technical and economic viability of gas turbine cogeneration using biomass in the cane sugar and alcohol industries. First researcher to apply "pinch" analysis and a mixed-integer linear programming model to minimize energy use in cane sugar refineries and alcohol distilleries.

**EDUCATION**

M.S.E., Mechanical and Aerospace Engineering, Princeton University,  
1991

B.S., Mechanical Engineering, University of California, Irvine, 1986

## SELECTED PUBLICATIONS

1. A Technical and Economic Assessment of the Co-Production of Electricity and Alcohol From Sugar Cane. Presented at the *International Engineering Conference on Energy Conversion (IECEC-90)*. American Institute of Chemical Engineers. New York, NY. August 1990. Principal author and presenter.
2. Cogeneration Applications of Biomass Gasifier/Gas Turbine Technologies in the Cane Sugar and Alcohol Industries. Proceedings, *Energy and Environment in the 21st Century*, MIT Press. Cambridge, Massachusetts. 1991. Co-author.
3. The Environmental Impacts of Demand-Side Management. Electric Power Research Institute report TR-101673. 1992. Co-author.
4. The Role of Gas Heat Pumps in Electric DSM. Presented at the 6th National Demand-Side Management Conference. Miami Beach, Florida. March 1993. Principal author and presenter.
5. Applying an Integrated Energy/Environmental Framework to the Analysis of Alternative Transportation Fuels. Invited paper at the European Council for an Energy Efficient Economy (ECEEE) 1993 Summer Study. Principal author.
6. Mistakes, Misconceptions, and Misnomers in DSM Cost-Effectiveness Analysis. Peer reviewed paper at the ACEEE 1994 Summer Study. Principal author and presenter.
7. A Social Cost Analysis of Alternative Fuels for Light Vehicles. *Energy Strategies for a Sustainable Transportation System*, ACEEE. Washington, DC. 1995.
8. Strategies for Reducing Energy Consumption in the Texas Transportation Sector. Project for the Texas Sustainable Energy Development Council. Austin, Texas. June 1995. Co-author.
9. Evaluation of Food Processing Effluent Treatment Alternatives. Paper presented at the American Chemical Society meeting, Las Vegas, Nevada. December 1997. Co-Author.
10. Market Transformation Effect Indicators for Government, Utilities, Retailers and Manufacturers. Invited panelist in a roundtable discussion at the American Council for an Energy Efficient Economy (ACEEE) 1998 Summer Study.
11. California: Crisis Over? Project Finance NewsWire, Chadbourne & Parke. October 2001. Co-author.
12. California: Back to Basics or Déjà Vu? *Natural Gas & Electricity*, Volume 20, Number 12. July 2004. Co-author.
13. Nuclear Fuel Reprocessing: Issues and Future Prospects. Report for the California Energy Commission. (Final Draft). March 2006. Co-author.

14. AB 1632 Assessment of California's Operating Nuclear Plants. California Energy Commission, CEC-100-2008-005-F. October 2008. Co-author.
15. Framework for Evaluating Greenhouse Gas Implications of Natural Gas-fired Power Plants in California. California Energy Commission, CEC-700-2009-009-F. May 2009. Co-author.
16. California's March to 50% Renewables. Project Finance NewsWire, Chadbourne & Parke. November 2015. Co-author.

## **PREPARED TESTIMONY**

1. Rhode Island Public Utilities Commission No. 2025  
Prepared Testimony on Behalf of Rhode Island Department of Public Utilities and Carriers (Commission Staff). Testimony addressed the costs, savings, and cost-effectiveness of the proposed demand-side management programs of Providence Gas Company. April 1993.
2. Pennsylvania Public Utility Commission R-943029  
Prepared Testimony on Behalf of the Pennsylvania Office of Consumer Advocate. Testimony reviewed 1307(f) filing of Columbia Gas of Pennsylvania, particularly the impact of the proposed gas cost recovery mechanism on residential customers. May 1994.
3. Public Utilities Commission of the State of Hawaii No. 94-0206  
Prepared Testimony on Behalf of the Gas Company of Hawaii (Gasco). Testimony identification of Gasco's concerns regarding HECO's proposed DSM programs for competitive energy end-use markets. December 1994.
4. Arizona Corporation Commission No. E-00000A-02-0051, E-01345A-01-0822, E-00000A-01-0630, E01933A-02-0069, E-01933A-98-0471  
Rebuttal Testimony on Behalf of Constellation NewEnergy, Inc. and Strategic Energy, L.L.C. Testimony addressed the future of the Arizona Independent System Administrator. July 28, 2002.
5. FERC Docket Nos. EL00-95-075 and EL00-98-063  
Affidavit on Behalf of Duke Energy Trading and Marketing LLC. March 20, 2003.
6. CPUC Rulemaking 01-10-024  
Prepared Testimony on Behalf of the Alliance for Retail Energy Markets. Testimony addressed the utility procurement plans with respect to resource adequacy. June 23, 2003.
7. CPUC Rulemaking 01-10-024  
Rebuttal Testimony on Behalf of the Alliance for Retail Energy Markets. July 14, 2003.
8. Arizona Corporation Commission No. E-00000A-02-0051  
Reply Testimony on Behalf of Constellation NewEnergy, Inc. and Strategic Energy L.L.C. August 29, 2003.
9. Arizona Corporation Commission No. E-01345A-03-0437  
Direct Testimony on Behalf of Constellation NewEnergy and Strategic Energy, Inc. February 3, 2004.
10. Arizona Corporation Commission No. E-01345A-03-0437  
Cross Rebuttal Testimony of Mark E. Fulmer on Behalf of Constellation NewEnergy and Strategic Energy, Inc. March 30, 2004.
11. CPUC Rulemaking 03-10-003  
Direct Testimony of Mark E. Fulmer on Behalf of The City and County of San Francisco on Community Choice Aggregation Transaction Costs. April 15, 2004.

12. CPUC Rulemaking 03-10-003  
Reply Testimony of Mark E. Fulmer on Behalf of The City and County of San Francisco on Cost Responsibility Surcharge for Community Choice Aggregation. May 7, 2004.
13. CPUC Rulemaking 03-10-003  
Rebuttal Testimony of Mark E. Fulmer on Behalf of The City and County of San Francisco on Cost Responsibility Surcharge for Community Choice Aggregation. May 20, 2004.
14. CPUC Rulemaking 04-04-003  
Testimony of Mark Fulmer on Behalf of Strategic Energy LLC and Constellation NewEnergy concerning the Long Term Procurement Plans of PG&E, SCE and SDG&E. August 6, 2004.
15. CPUC Rulemaking 04-04-003  
Rebuttal Testimony of Mark Fulmer on Behalf of Strategic Energy LLC and Constellation NewEnergy concerning the Long Term Procurement Plans of PG&E, SCE and SDG&E. August 20, 2004.
16. CPUC Rulemaking 03-10-003  
Opening Testimony of Mark E. Fulmer on Behalf of the City and County of San Francisco on Allocation of Costs for Community Choice Aggregation Phase 2. April 28, 2005.
17. CPUC Rulemaking 04-12-014  
Testimony of Mark E. Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning SCE's Test Year 2006 General Rate Case Application. May 6, 2005.
18. CPUC Rulemaking 03-10-003  
Rebuttal Testimony of Mark E. Fulmer on Behalf of the City and County of San Francisco on Allocation of Costs for Community Choice Aggregation Phase 2. May 16, 2005.
19. CPUC Rulemaking 04-12-014  
Testimony of Mark E. Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning SCE's Test Year 2006 General Rate Case Application. May 25, 2005.
20. CPUC Application 06-03-005  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of the PG&E's 2007 General Rate Case Marginal Cost, Revenue Allocation and Rate Design. October 27, 2006.
21. CPUC Application 07-01-045  
Testimony of Mark E. Fulmer on Behalf of The Alliance for Retail Energy Markets and The California Manufacturers and Technology Association Concerning SCE's Application to Update is Direct Access and Other Service Fees. June 22, 2007.

22. CPUC Rulemaking 08-03-002  
Testimony of Mark Fulmer Behalf of Debenham Energy, LLC. Concerning Tariffs Supportive of Green Distributed Generation. October 31, 2008.
23. CPUC Application 09-02-022  
Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition Concerning PG&E's 2009 Rate Design Window Application. July 31, 2009.
24. CPUC Application 09-02-019  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning the Cost Recovery Proposed By PG&E in its Application to Implement a Photovoltaic Program. August 14, 2009.
25. Superior Court of San Francisco  
Deposition of Mark E. Fulmer on Behalf of the City and County of San Francisco in PG&E v. CCSF. (Verbal deposition only.) September 2, 2009.
26. California Superior Court of San Francisco Court Case No. CGC-07-470086 Testimony of Mark E. Fulmer on Behalf of the City and County of San Francisco in PG&E v. City and County of San Francisco. (Trial exhibits only in electronic file.) September 25, 2009.
27. CPUC Application 09-12-020  
Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition Concerning Phase 1 of PG&E's Test Year 2011 General Rate Case. May 19, 2010.
28. CPUC Application 10-03-014  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of PG&E's Test Year 2011 General Rate Case Application. October 6, 2010.
29. CPUC Rulemaking 07-05-025  
Testimony of John P. Dalessi, Mark E. Fulmer, Margaret A. Meal on Behalf of the Joint Parties on a Fair and Reasonable Methodology to Determine the Power Charge Indifference Adjustment (PCIA) and the Competition Transition Charge (CTC). January 31, 2011.
30. CPUC Rulemaking 07-05-025  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Parties Concerning the Transitional Bundled Service Rate, Direct Access Switching Rules, Minimum Stay Provisions, and Energy Service Provider Financial Security Requirements. January 31, 2011.
31. CPUC Rulemaking 07-05-025  
Rebuttal Testimony of Mark E. Fulmer on Behalf of The Direct Access Parties Concerning the Transitional Bundled Service Rate, Direct Access Switching Rules, Minimum Stay Provisions, and Energy Service Provider Financial Security Requirements. February 25, 2011.

32. CPUC Rulemaking 07-05-025  
Rebuttal Testimony of John P. Dalessi, Mark E. Fulmer, Margaret A. Meal on Behalf of The Joint Parties on a Fair And Reasonable Methodology to Determine the Power Charge Indifference Adjustment (PCIA) and the Competition Transition Charge (CTC). February 25, 2011.
33. CPUC Application A.11-03-001, 11-03-002, 11-03-003  
Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition and The Alliance for Retail Energy Markets Concerning Competitive Issues in the 2012-2014 Demand Response Program Proposals. June 15, 2011.
34. CPUC Application 11-03-001, 11-03-002, 11-03-003  
Rebuttal Testimony of Mark E. Fulmer on Behalf of The Direct Access Customer Coalition and The Alliance for Retail Energy Markets Concerning Competitive Issues in the 2012-2014 Demand Response Program Proposals. July 11, 2011.
35. CPUC Application 11-06-004  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition and the Alliance for Retail Energy Markets concerning PG&E's 2012 Energy Resource Recovery Account (ERRA) and 2012 Generation Non-bypassable Charges Forecast. August 26, 2011.
36. CPUC Application 11-05-023  
Testimony of Mark Fulmer on Behalf of the Direct Access Customer Coalition, the Alliance for Retail Energy Markets and the Western Power Trading Forum concerning the Application of SDG&E for Authority to Enter into Purchase power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center, and Quail Brush Power. September 22, 2011.
37. CPUC Application 11-06-007  
Testimony of Mark Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of SCE's Test Year 2012 General Rate Case Application. February 6, 2012.
38. CPUC Application 11-12-009  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition, the Alliance for Retail Energy Markets and the City and County of San Francisco Concerning PG&E's Application to Revise Direct Access and Community choice Aggregation Service Fees. May 14, 2012.
39. CPUC Rulemaking 12-03-014  
Testimony on Behalf of the Alliance for Retail Markets, Direct Access Customer Coalition, and Marin Energy Authority. With Sue Mara. June 25, 2012.
40. CPUC Rulemaking 12-03-014  
Reply Testimony on Behalf of the Alliance for Retail Energy Markets, Direct Access Customer Coalition, and Marin Energy Authority. With Sue Mara. July 23, 2012.
41. CPUC Application 12-03-001

Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning PG&E Company's Application to Implement Economic Development Rates for 2013-2017. August 24, 2012.

42. CPUC Application 12-02-001

Rebuttal Testimony of Mark E. Fulmer on Behalf of the Alliance for Retail Energy Markets Concerning PG&E's Application to Implement Economic Development Rates for 2013-2017. October 19, 2012.

43. CPUC Application 12-04-020

Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets, the Direct Access Customer Coalition and 3 Phases Renewables Regarding PG&E's Application to Establish a Green Option Tariff. October 19, 2012.

44. CPUC Application 12-04-020

Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets, the Direct Access Customer Coalition and 3 Phases Renewables Regarding PG&E's Application to Establish a Green Option Tariff. November 9, 2012.

45. CPUC Application 11-11-002

Testimony of Mark Fulmer on Behalf of the City of Long Beach. November 16, 2012.

46. CPUC Application 11-11-002

Rebuttal Testimony of Mark Fulmer on Behalf of the City of Long Beach. December 14, 2012.

47. CPUC Investigation 12-10-013

Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding the Rate Treatment of the San Onofre Nuclear Generating Station. September 10, 2013.

48. CPUC Application 13-06-015

Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding SDG&E's Application for Approval of an Amended Power Purchase Tolling Agreement with Pio Pico Energy Center. September 20, 2013.

49. CPUC Investigation 12-10-013

Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding the Rate Treatment of the San Onofre Nuclear Generating Station. September 23, 2013.

50. CPUC Application 13-06-015

Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding SDG&E's Application for Approval of an Amended Power Purchase Tolling Agreement with Pio Pico Energy Center. October 4, 2013.

51. CPUC Application 13-08-004  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition Regarding the SCE's 2014 "ERRA" Forecast. November 20, 2013.
52. CPUC Application 13-06-011  
Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning PG&E's Core Gas Capacity Planning Range. November 20, 2013.
53. CPUC Application 13-04-012  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of PG&E's Test Year 2014 General Rate Case Application. December 13, 2013.
54. CPUC Application 13-06-011  
Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning PG&E's Core Gas Capacity Planning Range. December 18, 2013.
55. CPUC Application 13-12-012/Investigation 14-06-016  
Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning Core Transport Issues in PG&E's Gas Transmission and Storage Rate Case and Consolidated Order Instituting Investigation. August 11, 2014.
56. New Mexico Public Regulation Commission Case No. 13-00390-UT  
Direct Testimony of Mark E. Fulmer on Behalf of Renewable Energy Industries Association of New Mexico. August 29, 2014.
57. CPUC Application 14-05-024  
Rebuttal Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets and the Direct Access Customer Coalition. September 2, 2014.
58. CPUC Application 13-12-012  
Rebuttal Testimony of Mark Fulmer on Behalf of the Core Transport Agent Consortium Concerning Core Transport Issues In PG&E's Gas Transmission and Storage Rate Case. September 15, 2014.
59. CPUC Rulemaking 12-06-013  
Direct Testimony of Mark Fulmer on Behalf of the Interstate Renewable Energy Council, Inc. Concerning Residential Electric Rate Design Reform. September 15, 2014.
60. CPUC Application 14-06-011  
Testimony of Mark Fulmer on Behalf of the Alliance for Retail Energy Markets, the Direct Access Customer Coalition and the Public Agency Coalition. October 3, 2014.

61. Washington Utilities & Transportation Commission Docket UE-140762 ET AL.  
Direct Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. October 10, 2014.
62. CPUC Rulemaking 12-06-013  
Rebuttal Testimony of Mark Fulmer on Behalf of the Interstate Renewable Energy Council, Inc. Concerning Residential Electric Rate Design Reform. October 17, 2014.
63. Washington Utilities & Transportation Commission Docket UE-140762 ET AL.  
Cross-Answering Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. November 14, 2014.
64. CPUC Application 14-06-014  
Testimony of Mark E. Fulmer on Behalf of the Direct Access Customer Coalition Concerning Phase 2 of SCE's Test Year 2015 General Rate Case Application. March 13, 2015.
65. CPUC Application 14-06-014  
Testimony of Mark E. Fulmer on SCE's Application to Establish Marginal Costs, Allocate Revenues, Design Rates, and Implement Additional Dynamic Pricing Rates. March 13, 2015.
66. CPUC Application 13-12-013  
Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. May, 8, 2015.
67. CPUC Application 14-11-003  
Testimony of Briana Kobor, Laura Norin, and Mark Fulmer on Behalf of the Utility Consumers' Action Network Concerning Sempra's Revenue Requirement Proposals for SDG&E and SoCal Gas. May 15, 2015.
68. CPUC Application 13-12-013  
Rebuttal Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. June 12, 2015.
69. CPUC Application 14-12-017  
Testimony of Mark Fulmer on Behalf of the City of Long Beach, Gas & Oil Department. June 22, 2015.
70. CPUC Application 14-12-007  
Testimony of Mark Fulmer and Laura Norin on Behalf of the Utility Consumers' Action Network Concerning Risk Assignment of SONGS Decommissioning Costs. July 15, 2015.
71. Federal Energy Regulatory Commission Docket Nos. EL02-60-007, EL02-62-006  
(Consolidated)

Answering Testimony of Mark Fulmer on Behalf of Shell Energy North America (US), L.P.  
July 21, 2015.

72. CPUC Application 14-12-007

Rebuttal Testimony of Mark Fulmer and Laura Norin on Behalf of the Utility Consumers'  
Action Network Concerning Risk Assignment of SONGS Decommissioning Costs. August 3,  
2015.

73. CPUC Rulemaking 14-07-002

Joint Solar Parties Net Energy Metering Successor Tariff Rebuttal Testimony of R. Thomas  
Beach, Mark Fulmer and Jose Luis Contreras. September 30, 2015.

74. Arizona Corporation Commission No. E-04204A-15-0142

Direct Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. November 6,  
2015.

75. Arizona Corporation Commission No. E-04204A-15-0142

Direct Testimony of Mark Fulmer on Behalf of the Alliance for Solar Choice. December 9,  
2015.

## LAURA NORIN

### PROFESSIONAL EXPERIENCE

**Senior Project Manager**  
**MRW & Associates, LLC**  
**(2004-present)**

Conduct technical analyses related to energy regulation, policy, markets, and litigation. Sponsor expert witness testimony in utility rate cases and other proceedings before the California Public Utilities Commission. Research and develop policy reports and participate in regulatory proceedings and in negotiations with electric utilities. Construct models to forecast retail electricity rates, assess generation alternatives, and value utility assets. Major projects include work on utility rate design, nuclear energy policy, retail energy markets, natural gas storage, and resource adequacy.

**Graduate Student Researcher**  
**UC-Berkeley**

**(2002-2004)**

Conducted biophysics research related to cellular interaction mechanisms.

**Research Associate**  
**Lawrence Berkeley National Lab**  
**(2001-2002)**

Used microscopic and spectroscopic techniques to investigate the sources of battery failure in high-power batteries being developed for hybrid vehicles. Designed and carried out experiments and published their results.

**Research Assistant**  
**Fieldston Company**  
**(1996)**

Conducted research and quantitative analysis related to domestic energy transportation. A major project involved analyzing the finances of domestic freight railroads as part of a study on the effects of railroad consolidation on deregulating utilities.

### EDUCATION

MS in Applied Physics, UC Berkeley, 2004  
BS in Physics, UC Berkeley, 2001

## Publications

1. Coal Transportation Manual, 1996/97. Edited with Abby Caplan, Trygve Gaalaas, John Gallagher, et al. Fieldston Publications, Inc. Washington, DC. ISBN 0-9613656-7-6. October 1996.
2. Study of Membrane Degradation in High-Power Lithium-Ion Cells. With Robert Kostecki and Frank McLarnon. *Electrochemical and Solid-State Letters*, Vol. 5, Issue 4, A67-A69. 2002.
3. Diagnostic Studies of Polyolefin Separators in High-Power Li-Ion Cells. With Robert Kostecki, Xiangyun Song, and Frank McLarnon. *Journal of the Electrochemical Society*, Vol. 151, Issue 4, A522-A526. 2004.
4. Nuclear Fuel Reprocessing: Issues and Future Prospects. With Robert B. Weisenmiller, Heather L. Mehta, and Mark E. Fulmer. Report for the California Energy Commission. (Final Draft) March 2006.
5. Approaches to Resource Adequacy for the Western Interconnection. With William Monsen and David Howarth. Report for the Western Governors' Association (Final Draft). August 28, 2006.
6. Nuclear Power in California: 2007 Status Report. With Robert Weisenmiller, Steven McClary, and Heather Mehta. California Energy Commission, CEC-100-2007-005-F. October 2007.
7. Barriers to Expansion of Natural Gas Storage Facilities in California. With Robert Weisenmiller and Suzie Kito. California Energy Commission, CEC-500-2008-036. April 2008.
8. AB 1632 Assessment of California's Operating Nuclear Plants. With Steven McClary, Heather Mehta, and Mark Fulmer. California Energy Commission, CEC-100-2008-005-F. October 2008.
9. Many Options for Solar Developers in California. With Heather Metha and David Howarth. *Project Finance NewsWire*, Chadbourne & Parke. September 2010.
10. California: Moving Beyond the Elections. With Heather Mehta and Brandon Charles. *Project Finance NewsWire*, Chadbourne & Parke. November 2010.
11. California Cap-and-Trade Program Takes Shape. With William A. Monsen and Sandhya Sundararagan. *Project Finance NewsWire*, Chadbourne & Parke. January 2011.
12. Using Tradable Renewable Energy Credits in California. With Heather Mehta. Project

Finance NewsWire, Chadbourne & Parke. March 2011.

13. Suspension of Cap & Trade Expected to have Limited Effect. North American Windpower. March 29, 2011.
14. How California's Emissions Program Can Benefit Wind. With William A. Monsen and Sandhya Sundararagavan. North American Wind Power. April 2011.
15. New California Rules May Complicate Financing of Renewable Energy Projects. With William A. Monsen. Project Finance NewsWire, Chadbourne & Parke. June 2011.
16. Proposed Market Rules May Increase Wind Curtailments. With William A. Monsen. North American Wind Power. Volume 8, Number 5. June 2011.
17. Guest Juice: Street Light Rate Realignment. With Scott Blaising, Braun Blaising McLaughlin & Smith. California Current. July 6, 2012.
18. Keys to Getting California Power Contracts Approved. With William A. Monsen. Project Finance NewsWire, Chadbourne & Parke. April 2013.
19. Changes Ahead for California Residential Solar. With Heather Mehta and Julia Getchell. Project Finance NewsWire, Chadbourne & Parke. February 2014.
20. Outlook for Utility-Scale Renewables in California. With Heather Mehta and Julia Getchell. Project Finance NewsWire, Chadbourne & Parke. April 2014.
21. Outlook for Utility-Scale Renewables in California. With Heather Mehta and Julia Getchell. Power Intelligence. April and May 2014.

## Prepared Testimony

1. CPUC Application 09-12-020  
Direct Testimony of South San Joaquin Irrigation District Concerning PG&E's 2011 General Rate Case Phase 1 Application (with Steven C. McClary). May 19, 2010.
2. CPUC Application 10-03-014  
Direct Testimony of Laura Norin on Behalf of South San Joaquin Irrigation District Concerning Pacific Gas and Electric Company's 2011 General Rate Case Phase II Application. October 6, 2010.
3. CPUC Application 10-12-005  
Testimony of Steven McClary and Laura Norin on Behalf of UCAN Concerning SDG&E's General Rate Case. September 22, 2011.
4. CPUC Application 11-05-023  
Testimony of Laura Norin on Behalf of UCAN Concerning SDG&E's Application for Authority to Enter into Purchase Power Tolling Agreements with Escondido Energy Center, Pio Pico Energy Center and Quail Brush Power. September 23, 2011.
5. CPUC Rulemaking 11-03-012  
Proposal of Laura B. Norin on Behalf of the California Farm Bureau Federation, the Agricultural Council of California, the California League of Food Processors, and the Agricultural Energy Consumers Association (the "Agricultural Parties") Concerning the Allocation and Use of Greenhouse Gas Allowance Auction Revenues. January 6, 2012.
6. CPUC Application 11-06-007  
Testimony of Laura Norin on Behalf of the Coalition for Affordable Street Lights Concerning SCE's Proposed Street Light Rates. February 6, 2012.
7. CPUC Application 11-10-002  
Testimony of Steven McClary and Laura Norin on Behalf of San Diego Consumers' Action Network (SDCAN) Concerning SDG&E's General Rate Case Phase II. June 12, 2012.
8. CPUC Application 13-08-002 *et al*  
Testimony of Laura Norin on Behalf of the California Farm Bureau Federation Concerning the Investor-owned Utilities' Greenhouse Gas Implementation Plans. October 9, 2013.
9. CPUC Application 13-08-004  
Testimony of Laura Norin on Behalf of The Public Agency Coalition Concerning SCE's Undercollection Tracking. November 20, 2013.

10. CPUC Application 13-04-012  
Testimony of Laura Norin on Behalf of the California Farm Bureau Federation Concerning PG&E's Marginal Cost Studies and Agricultural Rate Design Proposals. December 13, 2013.
11. CPUC Application 13-11-003  
Testimony of Laura Norin on Behalf of the Coalition For Affordable Street Lights (CASL) Concerning SCE's Street Light-Related Revenue Request. August 18, 2014.
12. CPUC Application 14-05-024  
Direct Testimony of Agricultural Energy Consumers Association and the California Farm Bureau Federation. August 22, 2014.
13. CPUC Application 14-01-027  
Testimony of Laura Norin on Behalf of the California Farm Bureau Federation Concerning SDG&E's Rate Design Window Proposals. November 14, 2014.
14. CPUC Application 14-01-027  
Rebuttal Testimony of Laura Norin on Behalf of the California Farm Bureau Federation Concerning SDG&E's Rate Design Window Proposals. December 12, 2014.
15. CPUC Application 14-06-014  
Testimony of Laura Norin on Behalf of the California Farm Bureau Federation Concerning SCE's 2015 General Rate Case Phase 2 Application. March 13, 2015.
16. CPUC Application 14-11-003  
Testimony of Briana Kobor, Laura Norin, and Mark Fulmer on Behalf of the Utility Consumers' Action Network Concerning Sempra's Revenue Requirement Proposals for SDG&E and SoCal Gas. May 15, 2015.
17. CPUC Application 14-12-007  
Testimony of Mark Fulmer and Laura Norin on Behalf of the Utility Consumers' Action Network Concerning Risk Assignment of SONGS Decommissioning Costs. July 15, 2015.
18. CPUC Application 14-12-007  
Rebuttal Testimony of Mark Fulmer and Laura Norin on Behalf of the Utility Consumers' Action Network Concerning Risk Assignment of SONGS Decommissioning Costs. August 3, 2015.

## **Presentations**

1. The Agricultural Parties' Greenhouse Gas Revenue Allocation Proposal. California Public Utilities Commission Workshop on Greenhouse Gas Revenue Allocation. San Francisco. November 2, 2011.

## ANNA CASAS

### PROFESSIONAL EXPERIENCE

**Senior Associate**  
**MRW & Associates, LLC**  
**(2015-present)**

Research and analyze energy data and related policy, with an emphasis on California electricity markets. Develop forecasts and analyses pertaining to electricity rates, rate design, and other energy matters and develop expert testimony for regulatory proceedings and litigation. Monitor and analyze regulatory and policy developments affecting the California energy markets.

**Engineering Consultant**  
**(2013-2015)**

Designed engineering solutions for commercial and residential buildings, including in the areas of energy efficiency, electrical systems, fire protection, and environmental systems.

**Portfolio Manager**  
**Nexus Energia**  
**(2009-2013)**

Created analytical models to forecast production for renewable technologies, customer energy demand, and spot market prices. Modeled cost of electricity procurement and generation and managed scheduling and settlements. Developed and implemented new technology to optimize billing operations for a Spanish Energy Services Provider.

**Engineering Consultant**  
**Crisergas**  
**(2008-2009)**

Designed liquefied natural gas satellite plants, liquefied petroleum gas storage facilities, control stations, and receiving facilities.

### EDUCATION

M.S. in Engineering and Management of Renewable Energy IL3 University  
Barcelona, 2009  
B.S./M.S. in Industrial Engineering, Polytechnic University of Catalonia,  
2006

## NAINA GUPTA

### PROFESSIONAL EXPERIENCE

**Associate**  
**MRW & Associates, LLC**  
**(05/2014 - Present)**

Research and analyze energy data and related policy, with an emphasis on California electricity and natural gas markets. Develop quantitative models for analysis. Summarize regulatory policy and monitor developments.

**Independent Consultant**  
**Environmental Defense Fund (EDF)**  
**(06/2013 – 05/2014)**

Assisted in the collection and summary of data in support of EDF's testimony in Demand Response proceedings at the California Public Utilities Commission. Conducted a literature review and reviewed utility tariffs to develop an understanding of load profiles and rate structures. Cataloged information related to prevailing rate structures for residential, commercial, and industrial customers in nine states: California, Florida, Illinois, New Jersey, New York, North Carolina, Ohio, Pennsylvania, Texas.

**Graduate Student Researcher**  
**Lawrence Berkeley National Laboratory (LBNL) and**  
**Enphase Energy**  
**(01/2011 – 08/2012)**

Provided research, data-finding, and literature reviews to facilitate renewable energy and energy efficiency research projects. Analyzed survey data to determine residential load characteristics in the Indian state of Maharashtra. Investigated and calculated the long-term energy saving potential from super-efficient appliances in Australia using LBNL's BUENAS methodology. Developed research reports on utility-sponsored incentives for energy efficiency in Canada and Australia. Researched solar and wind potential data for India. Analyzed the performance of Enphase microinverter solar PV installations versus the predicted performance based on the National Renewable Energy Laboratory's PVWatts forecasting tool.

### EDUCATION

M.S. in Energy and Resources, University of California, Berkeley, 2012  
B.Tech in Electronics and Communication Engineering, GGSIPU, India, 2007

## **GEORGE RANDOLPH**

### **PROFESSIONAL EXPERIENCE**

**Associate  
MRW & Associates, LLC  
(2015-present)**

Develop analyses pertaining to electric utility revenue requirements, rate design issues, power generation, energy financing, and natural gas projects through the development of statistical and economic models. Monitor key energy regulatory developments in California, and research and analyze energy policy developments. Provide support for expert witness testimony before public utility commissions.

**Fellow  
Project Drawdown  
(June 2015-September 2015)**

Analyzed the technical, economic, infrastructural, and political hurdles facing micro wind and wave/tidal energy adoption over the next 30 years. Developed robust, detailed climate and economic models forecasting cost, market potential, energy savings, and carbon reductions compared to normative, business-as-usual scenarios.

**Research Analyst  
American Jobs Project, University of California Berkeley  
(May 2014-August 2014)**

Drafted weekly memos on how Colorado can leverage its academic, not-for-profit and business organizations to meet new EPA regulations to limit carbon pollution from power plants. Proposed new funding alliances to sponsor research on the economic drivers needed to instigate new clean tech job growth.

**Research/Teaching Assistant  
Department of Atmospheric Science, University of Wyoming  
(August 2010-May 2012)**

Analyzed wind simulations in conjunction with observed wind patterns to improve wind forecasts. Generated wind power density maps of Wyoming to determine the dominant modes of variability of the wind.

### **EDUCATION**

M.S. Atmospheric Science, University of Wyoming, 2012  
B.S. Mechanical Engineering, Northwestern University, 2010

## **A Brief History and Description of ASWB Engineering**

ASWB Engineering is a small-business; woman-owned engineering and program management firm located in Tustin, CA. ASWB Engineering consists of mechanical and electric engineers who specialize in evaluation, measurement and verification, evaluating electric and mechanical systems and their efficiencies in commercial and industrial facilities. ASWB Engineering is certified by the California Public Utilities Commission as a Woman-Owned Business Enterprise and certified by the state of California DGS as a Small Business.

ASWB is a licensed Corporation in the State of California that has been in business since 1982. (Previous to 2013, the business name was ASW Engineering Management Consultants). ASWB has been financially sound and profitable the entire time, and is currently debt free. ASWB has the technical experience, sufficient financial resources and staff, an excellent performance record, and the qualifications to provide the requested services.

### **Goals and Objectives**

Energy efficiency has been the primary focus of our engineering business. ASWB specializes in helping our clients identify and implement measures to increase energy efficiency, improve system operation, and reduce operating costs.

We partner with clients in the public and private sectors to develop innovative and practical solutions that will allow our clients to cut costs without cutting services, capitalize on outside resources and incentives, and understand the immediate and long-term financial and operational implications of energy usage alternatives. We are committed to helping our clients' businesses thrive through comprehensive, customized, and cost-effective engineering management consulting services such as impact analysis and process evaluation.

We work closely with the investor-owned utilities, utility program directors, and the program design community to maintain a balanced approach that accommodates the perspectives and recommendations of experts from key fields. In today's increasingly complex and competitive environment, efficient and effective business operations are an imperative. ASWB Engineering offers a range of services to help customers make the right decisions relative to energy resources and implement and operate those resources as cost effectively as possible.

In addition, ASWB is very experienced with utility programs that involve large-scale facility on-site assessment and data acquisition. ASWB has conducted and documented hundreds of Energy Efficiency and Demand Response surveys on equipment found in commercial and industrial facilities. ASWB Engineering can provide expert process review of survey forms and data collection methodology, and has customer recruitment experience and well-trained qualified field survey personnel.

ASWB has dispatching, tracking, and daily reporting tools to conduct and manage survey data collection efforts. ASWB can also participate in project management and negotiations, reporting, and quality control as requested by our clients. All ASWB engineers and auditors have had considerable experience in the field and with utility demand-side customers.

ASWB Engineering designs, develops, and implements our own database programs; data security and data quality assurance are crucial factors. Our database programs have built-in data verification and error checking, and the data has been verified as 99% accurate by an

independent Measurement and Verification (M&V) firm. Also, ASWB Engineering has developed time-tested systems for data collection, management, record keeping, and reporting.

ASWB also offers a wide variety of training services and has 30 years of experience teaching energy efficiency topics to businesses and utility company employees. ASWB has a library of over 25 up-to-date workshops and seminars on many different topics.

### **Technical Acumen and Project Management**

One of ASWB's major strengths is our unique combination of technical acumen and project management skills.

We have a rock-solid foundation built on our professional understanding of existing and emerging technologies. We gain up-to-date, first-hand knowledge of new technologies and performance variances between the lab and field applications through the multiple research-and-development projects we manage each year. Our engineers and survey technicians have extensive, practical experience in assessing existing and proposed systems to identify opportunities to improve energy efficiency and reduce operating costs.

As we manage our projects, we ensure engineering integrity, while keeping client needs and ensuring customer satisfaction to the forefront. We are adept at working with a broad customer base and understand the organizational structures, objectives, and decision-making processes. We facilitate effective communication and coordination among all parties involved in a project, leading to better and more timely decisions. We also regularly bring projects in on time and at, or under, budget.

### **Organization and Personnel**

ASWB has 18 full-time employees (including eight full-time electrical and mechanical engineers, including three P.E.s) and a staff of approximately 15 part-time, on-call auditors and other positions.

- Our engineers are specialized in electrical and mechanical systems in commercial and industrial facilities.
- Our survey technicians (retired utility energy service representatives) have considerable experience in the process of visiting customer sites, assessing systems' pre-retrofit status, examining associated documentation, and identifying energy efficiency opportunities.
- Our office-support personnel are congenial, efficient, and focused on supporting our efforts to serve our clients effectively.

As engineers, we maintain a focus on new technologies and energy efficiencies, delivering practical solutions that provide cost-effective continued energy savings and regulatory compliance and that optimize facility operations.

## **Specific Rate Analysis Experience**

ASWB has performed rate analysis for PG&E, SCE, SDG&E as well as some municipalities. We have a number of spreadsheet programs that have been developed over the years for this purpose. ASWB performed a large number of these analyses during the switch to Direct Access back in the late 90's and into the 2000's. If work is awarded, ASWB's rate programs will be upgraded to reflect SDG&E's current rate and tariff schedule. ASWB has the capacity and flexibility to analyze rates based on monthly bill information and/or interval data files.

## ***Dennis Rowan, P.E., BPI, HERS***

### *Principal Engineer, Director of Engineering, ASWB Engineering*

Dennis Rowan is a licensed Professional Engineer and the Director of Engineering at ASWB Engineering. Mr. Rowan has worked for the company for more than 17 years. During that time he has been responsible for project management, systems analysis, field audits, data acquisition, quality control, software programming (MS Access and MS Excel), data reduction, and report writing on multiple energy systems research projects, as well as developing and providing training seminars. Mr. Rowan has managed and/or conducted hundreds of on-site demand response, energy efficiency, and Retrocommissioning surveys, followed up with demand response event notification, technical analysis, incentive payment calculations, and reporting. Mr. Rowan provides training to PG&E, SCE, SDG&E, LADWP, and SoCal Gas staff, customers, and private companies on a range of topics related to demand response, energy consumption, energy savings, and the electric grid. He has developed and delivered extensive training on automated demand response and energy efficiency. Mr. Rowan is a licensed Professional Engineer in the state of California and holds a BS in Mechanical Engineering. He is also a CBPCA certified HERS Rater.

#### *Education*

- Bachelor of Science, Mechanical Engineering; California State University, Long Beach
- Registered Professional Mechanical Engineer, California, 2003
- HERS Certified Provider 2010

#### *Employment History*

- Senior Mechanical Engineer and Project Manager, ASW Engineering Management Consultants. 1996 – present
- Mr. Rowan came to ASW with a significant background in manufacturing, having knowledge of end-use systems that support the production industry

#### *Selected Expertise*

- Building Performance Institute (BPI), Building Analyst Professional
- California Building Performance Contractors Association, HERS Provider
- Energy Engineering Principles and Simple Engineering Models
- Building Energy Simulation Modeling – eQuest, EnergyPro, etc.
- Simple Instrumentation
- Residential and Non-Residential Building Energy Usage
- Analysis of Metering Data
- Industrial and Water/Wastewater Energy Use

#### *Selected Project Experience*

- Dennis is responsible for Project Management, data reduction, systems analysis and report writing on Energy Savings projects. Primary responsibility for Mr. Rowan has included coordination of field verifications between installation technicians and participants, software and data management, data validation and quality control.
- Responsibility for EM&V services delivered for all performance contracting EM&V work covering DSM Bidding Pilot program and SPC programs offered through the IOUs.
- Implemented EM&V process for over 100 million kWh savings at the County of Los Angeles.
- Countless site inspections to verify pre- and post- conditions for ESCO projects and EM&V responsibilities.
- Technical Standards Manager for the PG&E Automated Demand Response (DR) Program, a demand response program 2012 – present. Responsibilities include development of applicable standards and protocols, site visits to identify available load reductions, review and approve or adjust submitted load

reduction studies, DR equipment installation verification, event notification tracking, event performance calculations, seasonal performance evaluation, and incentive calculations.

- Energy Efficiency Project Director for all energy efficiency projects analyzed by ASWB Engineering during the years from 2012 through present. Technical analysis and modeling applications and support of results through utility acceptance of results in all cases. Customers include the Energy Coalition, the City of Corona, Los Angeles County, and other independent customers for IOU and POU customers.
- Technical Audit Standards Manager for the SCE TA&TI Program, a demand response program 2005 – present. Responsibilities include development of applicable DR standards and protocols, review of submitted load reduction studies, energy efficiency (EE) integration project review, calculate interactive impact of EE and DR, equipment installation verification, incentive calculations for both EE and DR components, conduct pre- and post-installation inspections as required to verify EE and DR implementations.
- Technical Audit Standards Manager for the SDG&E TA&TI Program, a demand response program 2007 – present. Responsibilities include development of applicable DR standards and protocols, review of submitted load reduction studies, DR equipment installation verification, event performance calculations, and incentive calculations.
- Business Energy Coalition Demand Response Program 2005 – 2009. Responsibilities included conducting field surveys and technical audits, providing system layout drawings and providing direct oversight for Installation of internet gateway telemetry systems to coordinate the site's demand response implementation plan.
- CAISO Demand Reduction Program 2000 – 2006. Responsibilities included conducting field surveys and technical audits, provided event notification and tracked responses, conducted event performance calculations with seasonal performance evaluation. Annual incentive distributions were based on these calculations.
- Primary ASWB responsibility for the California Power Authority Demand Reserves Partnership Program. Load tracking, dispatch notifications, data analysis, and performance reporting for settlement purposes. 2000 – 2006
- SCE Smart Thermostat Program. Coordination and supervision for field data collections and associated hardware verifications.
- Review Savings by Design project installations and associated equipment verifications conducted by field staff (2002 – Present)

## ***Mark Hinrichs***

*Senior Engineer, EIT, HERS*

### *Senior Electrical Engineer, Electrical System Analyst, ASWB Engineering*

An Electrical Engineer and System Analyst at ASWB, Mark Hinrichs has the primary responsibility for remote data collection, site inspection, analysis and report writing for the company. He designed the database and report structure for the 2002 – 2003 *Energy Savers Program* and has extensive experience developing and implementing data collection systems for various research projects.

### *Education*

- Bachelor of Science, Electrical Engineering; University of California, Irvine 1992
- Certified Engineer-in-Training (EIT) California 1991
- HERS Certified Provider 2010

### *Employment History*

- Senior Engineer, Database Designer, Electrical System Analyst, ASWB Engineering. 1989 – present

### *Selected Expertise*

- Energy Engineering Principles and Simple Engineering Models
- Analysis of Metering Data
- Energy Management and Control Systems
- Ag and Food Processing Energy Use
- Ag and Food Processing Energy Audits – Fieldwork

### *Selected Project Experience*

- Some of the projects Mr. Hinrichs has been involved in over the past few years are:
- TI Test Manager for the SCE TA&TI Program Verification Engineer, a demand response program 2005 – present
- TI Test Manager for the SDG&E TA&TI Program Verification Engineer, a demand response program 2007 – present
- Savings By Design program field verification engineer 2002 – present, duties included verification of energy efficiency components in the agriculture and commercial sector, including advanced refrigeration and cold storage, fruit and vegetable processing, dairies, etc.
- Conducted site inspection in support of SCE Demand Side Management (DSM) projects (1990 – 2007)
- Acted as primary researcher for analysis of 1000 kW compressed air life cycle/fuel comparison (1996)
- Developed software to support baseline analysis of energy use for ESCO performance assessment (1994 – 1995)
- Conducted on-site chiller efficiency tests (1990 – 2006). Measurements included simultaneous electrical power, water flow, and temperature measurements. Analyzed and normalized the data and prepared reports.
- Provided in-depth ongoing instrumentation, monitoring, and analysis of new variable speed drive chiller performance using cooling tower wet-bulb approach control
- Laboratory Reports and Analysis — New Refrigerants Performance Testing. Extensive error propagation analysis was a large part of this project.
- Elf-Atochem — Refrigerant 408a testing, data collection, analysis and reporting
- Responsible for development and implementation of data collection systems for several research projects 1995-present.

## ***David Lu***

*Staff Engineer II, EIT*

### *Mechanical Engineer II, ASWB Engineering*

A lead Mechanical Engineer at ASWB Engineering, David Lu is a Program Manager; his primary responsibilities are: managing multiple energy efficiency, demand response, and permanent load shifting projects. In execution of the demand response responsibilities, Mr. Lu performs and directs his staff to perform on-site inspections for verification and approval of field-installed demand-response technologies. He also performs in-depth analyses and handles a significant part of the report writing for his department.

David is a dynamic project manager, and effectively leads his staff with well-developed techniques, managing and developing timelines, identifying effective milestones to be achieved and then ensuring that they are met on time and on budget. He develops the manpower budgets necessary for timely completion of the project tasks as well as forecasting other expenses that may be incurred in the course of work.

Mr. Lu has in-depth experience with large commercial HVAC systems as well as many typical industrial energy-consuming systems; he understands the many methods that may be used to control these systems in order to reduce demand on the electric supply grid when requested by the serving utility.

### *Professional Experience*

Mechanical Engineer, ASWB Engineering: 2008 – present

- Program Manager, Measurement & Verification Engineer for SCE Demand Response Auto DR Program
- Program Manager, Permanent Load Shifting SCE Program
- Program Manager, SDG&E Demand Response Auto DR Program

Project Manager, PG&E Demand *Response* Auto DR Program

### *Selected Expertise*

- Non-Residential Building Energy Usage Modeling
- Commercial Building Energy Audits - Fieldwork
- Energy Management and Control Systems
- Industrial Energy Audits - Fieldwork

### *Selected Project Experience*

- SCE Demand Response Auto DR Program Manager, Verification Engineer; demand response program 2008 – present
- SCE Demand Response Auto DR Account Summary Reports
- SDG&E TA&TI Program Manager, Verification Engineer; demand response program 2008 – present
- Protocols Engineer for Navigant Voltage Regulator testing

### *Education*

- Bachelor of Science, Mechanical Engineering; University of California, Riverside 2008
- Certificate Engineer-in-Training (EIT) California 2009

## ***Salvador Heredia***

### *Mechanical Engineer, ASWB Engineering*

Mechanical Engineer at ASWB Engineering, Salvador Heredia has the primary responsibility for site inspection, analysis and report writing for the company.

### *Professional Experience*

#### **Mechanical Engineer, ASWB Engineering: 2013 – present**

- Measure and Verification Engineer for SCE Demand Response Auto DR Program
- Measure and Verification Engineer for SDG&E Auto DR Program
- Staff Engineer for Permanent Load Shifting SCE Program
- Industry Standard Practice Studies: research and evaluate energy efficiency technologies and measures for CPUC review

#### **Carpenter/Journeyman, AWI Builders July 2011 – September 2011**

- Responsible for reading blueprints and erecting steel-frame structural walls in commercial buildings.

#### **Carpenter/Journeyman, Plumbing Enterprises, Inc. June 2010 – July 2011**

- Part of a team responsible for replacing complete plumbing system in apartment building with live – in tenants

### *Selected Expertise*

- Measure and Verification for Commercial and Industrial Buildings
- Commercial Building - Fieldwork
- Industrial Building – Fieldwork

### *Selected Project Experience*

- SCE Demand Response Auto DR Program, Verification Engineer, a demand response program 2013 – present
- SCE Demand Response Auto DR Account Summary Reports
- Service Account Summary Reports
- Creating Interval Analysis Report using Microsoft Access
- Industry Standard Practice Studies: research and evaluate energy efficiency technologies and measures for CPUC review

### *Education*

- Bachelor of Science, Mechanical Engineering; California State Polytechnic University of Pomona, Pomona 2013
- Certificate Engineer-in-Training (EIT) California 2013



**Tierra** provides energy efficiency, demand response, renewable energy, and resource management consulting services to electric and gas utilities, government agencies, municipal governments, and private sector clients. Tierra's principal staff members have provided best-in-class technical consulting services for nearly 30 years. We leverage our collective experience to deliver innovative solutions that help our clients get more value from their resource management programs. Tierra's team members have a wide range of skills and in-depth expertise in:

- Program and portfolio design, development, and implementation
- Cost effectiveness modeling and evaluation
- Program impact, process and market evaluation
- Technical, economic, and market potential studies
- Regulatory policy, strategy, and reporting
- Engineering and economic analysis
- Forecasting and resource planning
- Energy codes and standards consulting and code compliance support
- Trade ally outreach, training and curriculum development
- Market research and technology assessment
- Advertising and marketing planning and implementation

Our clients have included electric, gas, and water utilities; government agencies; and regulatory bodies across North America. We have worked with clients in virtually every market segment from small municipal energy agencies to large independently owned utilities. Tierra staff members are recognized for their contributions to the advancement of evaluation science within the DSM industry. We specialize in finding innovative ways to streamline program delivery to maximize the savings delivered per dollar invested. More information on our practice areas and expertise can be found at [www.TierraRC.com](http://www.TierraRC.com).

# FLOYD KENEIPP, PE, MBA

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## BIOGRAPHY

### FLOYD KENEIPP

Principal

Tierra Resource Consultants, LLC

1501 N. Broadway, Suite 300

Walnut Creek, CA 94596

Office: 925-954-7363 | Mobile: 925-305-8915

Email: [Floyd.Keneipp@tierrarc.com](mailto:Floyd.Keneipp@tierrarc.com)

Web: [www.TierraRC.com](http://www.TierraRC.com)

### PROFESSIONAL HISTORY

#### ENERGY MANAGEMENT CONSULTING

- Principal, Tierra Resource Consults, May 2014 – Present
- Managing Director, Navigant Consulting, April 2011 – April 2014
- Director, Navigant Consulting, January 2010 – March 2011
- Principal, Summit Blue Consulting, April 2008 – December 2009
- Manager of West Coast Operations, Summit Blue Consulting, 2002 – April 2008

#### ESCO PROJECT DEVELOPMENT

- Owner/President, The Industrial Lighting Company 2001-2002
- Senior Project Developer, Enran Energy Services, 1999 – 2001
- Project Developer, Sempra Energy, 1997 – 1999

#### INDUSTRIAL ENGINEERING

- Senior Industrial Engineer, Unisys Corporation, 1989 – 1995
- Industrial Engineer, General Dynamics Corporation, 1985 – 1989
- Industrial Engineer Intern, Hercules Corporation, 1984

#### EDUCATION

- M.B.A., University of San Diego, Finance and Marketing, 1994
- B.S., Montana State University, Industrial and Management Engineering, 1983

Floyd Keneipp is a registered professional engineer with over 29 years of experience in developing technical and business solutions for complex engineering projects and business initiatives. As a Managing Director for Navigant, Floyd managed the 2011 and 2013 IOU service territory potential and goals study as a contractor to the California Public Utilities Commission. Prior to that, he designed DSM program portfolios for various clients and as the evaluation practice area lead for Summit Blue Consulting he developed extensive experience in measure analysis and documentation, market characterization and assessment, and impact and process evaluation.

Floyd's engineering and management knowledge is enhanced by his prior experience as a project developer for several ESCOs. He was responsible for all aspects of project development, from inception to commissioning of final installations. Additionally, Floyd started and operated the Industrial Lighting Company, a small design/build firm that originated, developed, and installed energy efficiency projects for industrial firms. Prior to entering the energy services industry Floyd was an Industrial Engineer implementing manufacturing systems and refining management processes designed to improve cost, quality, and production metrics. He obtained his professional engineers license as an Industrial Engineer and became proficient in several advanced management techniques including continuous improvement initiatives, just in time logistics management, technology assessment and production integration, and total quality management (TQM).

## PROFESSIONAL EXPERIENCE

***Residential Energy Efficiency 2.0 Market-Based Solution Pilot, Efficiency First New York.*** EM&V advisor on a residential whole home pilot program intended to create an energy efficiency "Meter" that calibrates EE savings predictions with actual usage data and more directly rewards contractor performance through alternative incentive structures.

***Analysis to Update Energy Efficiency Potential, Goals, and Targets for the 2013 and 2015 and Beyond, California Public Utilities Commission.*** Project manager and advisor on several updates to the energy efficiency potential, goals, and targets for the IOU territories in the state of California for the period 2011, 2013, and 2015 and beyond. The primary goals of the studies included providing guidance for the investor owned utilities' energy of efficiency portfolios, support forecast for energy procurement and transmission planning at the IOU and state level, and to inform strategic contributions to California's greenhouse gas reduction targets as expressed in Assembly Bill (AB) 32. The study looked at annual and cumulative savings possible from a range of energy efficiency activities, including high impact measures, emerging technologies, financing alternatives, behavioral initiatives, and the role of state and federal codes and standards.

***Program Assessment of 2010 - 2012 Local Government and Institutional Partnerships, Pacific Gas and Electric.*** Project Manager on several program assessments that provided a review of 65 local government partnerships (LGPs) delivered by California's four largest investor-owned utilities (IOUs) and included an in-depth study of 22 LGPs. The research focused on characterizing the market for energy services in the local government segment, and included taxonomy defining differences in various jurisdictions. The assessment of the statewide institutional agencies focused on colleges, universities, and various state agencies and included a discussion on the impact of strategic energy planning on long term program performance, and the impact of targeted energy efficiency funding.

***Low Carbon Grid Study, CEERT/NREL.*** Project manager for the forecast and production cost model for energy efficiency for the California 2030 Low Carbon Grid Study (LCGS). This effort outlined three areas of initiative that support the LCGS low carbon grid goals including;

1. Voluntary participation regulated programs operated by various administrators, such as utilities, that promote energy efficiency through voluntary participation programs that are subject to regulatory oversight. Opportunities to contribute additional savings include:
  - Expanded and accelerated adoption of new technologies
  - Expanded use of data analytics
2. Mandatory policy initiatives are legislative and regulatory activities occurring at the state or local level that require some minimum level of energy efficiency. Opportunities for mandatory policy include:
  - The acceleration of codes and standards and improved compliance on updates to existing buildings
  - Mandatory upgrades to existing buildings
3. Evolving market mechanisms are evolving market mechanisms represent initiatives that will either expand participation in existing energy efficiency activities beyond what has historically been captured, or offer new pathways to achieve energy savings that have not been recognized in past market initiatives, including:
  - Opportunities from financing through Contract Assessment Districts, such as Property Assessed Clean Energy (PACE) programs
  - Opportunities from California's Cap-and-Trade Program

# MARSHALL KENEIPP, PE

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## MARSHALL KENEIPP

Principal

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## PROFESSIONAL HISTORY

- Principal, Tierra Resource Consultants, LLC
- Director, Navigant Consulting, Inc.
- Principal, Director of Engineering, Summit Blue Consulting
- President, Tesser Consulting Group
- Managing Consultant, EDS Management Consulting Services
- Principal Consultant, XENERGY, Inc.
- Principal, RCG/Hagler Bailly
- Associate Engineer, ANCO Engineers
- Mechanical Engineer, Flack and Kurtz Consulting Engineers

## EDUCATION

- B.S. ME, Engineering, University of Colorado, 1982

## PROFESSIONAL ASSOCIATIONS

- Association of Energy Services Professionals
- Registered Professional Engineer, Mechanical Engineering, Colorado

## PROFESSIONAL ASSOCIATIONS

- Registered Architect, Colorado and California

## BIOGRAPHY

Marshall Keneipp has over 31 years of experience in the utility and energy industries. He is a registered professional engineer with extensive experience in utility energy services programs, end-use energy systems analysis and engineering, technology assessment, performance measurement, program evaluation, market research and assessment, and energy codes and standards. His areas of expertise include program design and implementation support; impact evaluation, performance measurement and benefit/cost analysis; process and market evaluation; energy engineering methods and modeling; in-field data collection and end-use metering. His work has spanned virtually all customer market segments, end use applications and fuel types. His most recent consulting assignments include serving as a senior advisor for multi-year evaluations of DSM program portfolios for Arizona Public Service Company and Unisource Energy. Mr. Keneipp has co-authored several guidebooks on energy program evaluation and the application of engineering methods to energy use assessment, and has developed a wide range of efficiency program educational and collateral materials. He has also presented numerous workshops and seminars on engineering approaches to energy analysis.

## PROFESSIONAL EXPERIENCE

**DSM measurement and verification project, CPUC.** Provided engineering leadership and management of several large-scale in-field measurement and verification studies of DSM programs implemented by the California electric and gas utilities on behalf of the California Public Utilities Commission.

**Develop new portfolios of DSM programs, Tucson Electric Power Company.** Recently assisted TEP in the development of new portfolios of energy efficiency programs and is currently providing senior leadership on ongoing program development, baseline assessment, and performance measurement. *Assessment Coordinator at Tierra Resource Consultants* for incremental costs of energy efficiency programs for Tucson Electric Power, 2013-2014.

**Measure Cost Study for the 2005 Update to the DEER Database.** Managed a study to update the measure cost data as part of a comprehensive update and revision to California's DEER database.

**Develop value proposition and identify market opportunities for a demand response programs.** Assisted a major equipment manufacturer with the development of the value proposition of utility demand response and direct load control programs, and identifying market opportunities to deploy demand response technologies and programmatic solutions.

**Design and implementation of four residential and small commercial sector market transformation programs.** Project manager for the design of two residential and two small commercial programs intended to transform the market for energy efficiency in residential HVAC and commercial HVAC and lighting applications; currently managing the implementation of the residential programs.

**Design of Agricultural Sector Energy Efficiency Programs and Agricultural Audit Tool, Northern States Power.** Responsible for the design of an agricultural rebate program designed to encourage the installation of energy efficiency measures in agricultural facilities. The project also included the development of an automated electronic agricultural audit tool to be used by field representatives to identify and report on energy management options.

**Design of a Commercial Sector New Construction Program, Wisconsin Power & Light.** Managed the design of a computerized incentive and design awards program for encouraging the "whole building" approach to designing energy efficient commercial buildings. The project included a design awards software purchase.

**Design of a C/I Customer Rebates Program, Consumers Power Company.** As part of a program design team, managed the design and development of Consumers Power's Reduce the Use C/I Custom Rebates Program, including incentive design, development of implementation plan, worksheets and application forms, draft marketing plan, quality control plan, evaluation plan, and tracking system data specification.

**Design of a Residential Sector New Construction Program, Northern States Power.** Managed the development of a residential sector new construction program, which was performance-based and provided incentives to encourage the design and construction of super-efficient homes. Both electric and natural gas conservation was encouraged through the program.

**Design of a Commercial Sector New Construction Program, Northern States Power — Wisconsin.** Managed the design and development of an innovative program for encouraging the design and construction of highly efficient, new commercial buildings. The program design included direct incentives, a points-based design awards program, and implementation handbooks.

# GAVIN HASTINGS

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## GAVIN HASTINGS

Director

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## PROFESSIONAL HISTORY

- Director, Tierra Resource Consultants, LLC
- Account Executive, Arizona Public Service
- Training Manager, South West Building Science Training Center

## EDUCATION

- BA, Sociology, Chapman University, 2007

## PROFESSIONAL ASSOCIATIONS

- Board of Directors, Elect, Building Performance Institute

## PROFESSIONAL ASSOCIATIONS

- Registered Architect, Colorado and California
- American Institute of Architects
- US Green Building Council
- National Institute of Building Sciences

## BIOGRAPHY

Gavin Hastings has extensive experience in the design and implementation of utility-scale residential energy efficiency programming. As a Director for Tierra, Gavin is responsible for the direct oversight of a wide breadth of projects from utility energy efficiency program design efforts to innovative pilots in solar, storage, and next generation demand management technologies. Gavin specializes in residential energy management and supports a wide range of efforts to advance the residential retrofit markets. Over the past 5 years, Gavin managed award winning ENERGY STAR programs and has lead innovative efforts to improve the way programs serve the existing home market segment. He has championed the advancement of BPI 2100 and BPI 2200 Standards (known as HPXML) to streamline the collection and data in the weatherization industries. He is an acting member of the Building Performance Institute's Board of Directors, focused on meeting the changing needs of both the for-profit and low-income retrofit markets. Mr. Hastings also serves on a number of industry efforts to aid in the advancement of residential energy efficiency. In 2012, along with Southwest Energy Efficiency Project (SWEET), he founded the

Southwest Home Performance collaborative bringing together residential retrofit programs throughout the Southwest. He also currently serves on the SEE Action Residential Retrofit Working Group and the DOE Home Performance Working Group. Before joining APS in 2009, Mr. Hastings managed the Southwest Building Science Training Center, providing training and BPI certifications for low income weatherization and Home Performance professionals. This includes coordination with the State Energy Office and Arizona Community Action Groups to assist in meeting the workforce development needs of the Low-Income Weatherization Assistance program.

## PROFESSIONAL EXPERIENCE

**2015 Arizona Public Service Solar-Storage Enabled Homes Pilot Project.** Currently serving as the project lead for a 75 home pilot investigating the effects of solar and storage enabled homes in conjunction with emerging energy efficiency technologies and advanced control strategies on utility load-shifting and flattening (e.g. mitigation of the system duck curve). Research will use the awareness-knowledge-Attitudes-Behavior (akAB) model of

behavior change to assess participant awareness/knowledge of energy use (ak), concern and personal responsibility attitudes (A) toward energy use prior to and after installing integrated distributed energy resource (DER) systems on residences in Phoenix. Integrated DER systems include energy efficiency, distributed generation (Solar PV), battery based energy storage, thermal energy storage, and ZigBee compliant Wi-Fi enabled home energy management systems with integrated demand response capability including smart meter enabled price response strategies.

***Portfolio Evaluation and Design, Southern Mississippi Electric Power Authority (SMEPA).*** Working with the member utilities of SMEPA to complete a thorough portfolio evaluation and identify new program initiatives to meet evolving member needs. This includes identifying cost effective effort and program designs that make sense for the local markets.

***Process Evaluation, Clinton Foundation.*** Complete a process evaluation on a local residential retrofit initiative in Arkansas. This includes assessing the full implementation strategy to for a whole house retrofit program targeting low to moderate income home owners.

***HPXML Implementation Guide Development, Home Performance Coalition.*** Serves as the primary author of the DOE's HPXML Implementation Guide for Program Managers. This includes collecting feedback from a wide range of market actors on best practices for implementing HPXML.

***Energy Efficiency Program Design and Development for Residential Programs, Arizona Public Service.*** Designed and developed multiple award winning industry leading EE programs including; Home Performance with ENERGY STAR, ENERGY STAR New Homes, Multifamily, and Shade Trees. Extensive experience designing, and developing whole house residential programing.

***Program Management and Implementation.*** Program manager of multiple award winning programs including Home Performance with ENERGY STAR and ENERGY STAR Homes programs. This included the successfully managing the launch of multiple program management database systems, including the first system to successfully implement the HPXML data standard across multiple software providers, creating the open modeling software home performance program.

***Policy and Strategic Consulting Support.*** Experience working with EE program cost effectiveness tests, developing program implementation plans, forecasting savings, and optimizing EE programs to meet cost effectiveness goals.

***Energy Efficiency Outreach and Communications.*** Primary EE spokesperson for APS Home Performance with ENERGY STAR programs – extensive media and trade ally outreach experience. Gavin is also an accomplished speaker, frequently contributing to a wide range of energy efficiency conferences.

# TOM HINES

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## BIOGRAPHY

### **TOM HINES**

Regulatory Specialist  
Tierra Resource Consultants, LLC  
4446 E Camelback Rd, Suite 112  
Phoenix, AZ 85018  
Office: 602-505-4826 | Mobile: 602-505-4826  
Email: Tom.Hines@tierrarc.com  
Web: [www.TierraRC.com](http://www.TierraRC.com)

### **PROFESSIONAL HISTORY**

- Principal, Tierra Resource Consultants, LLC
- President, Hines Consulting
- Analyst/Project Manager, EcoGroup (Aclara)

### **EDUCATION**

- MS, Environment Planning, Arizona State University, 1993
- BS, Psychology, Rutgers University, 1990

### **PROFESSIONAL ASSOCIATIONS**

- Board of Directors, Energy and Environmental Building Alliance

Tom Hines is a residential energy efficiency expert with more than 20 years of experience in program design, implementation and evaluation. From 1997 through 2014, Mr. Hines has worked with Arizona Public Service Company (APS) in designing, developing and managing the company's portfolio of residential energy efficiency programs, including: new homes, existing homes HVAC, home performance, consumer products lighting, pools, multi-family, behavioral conservation, and energy efficiency financing programs. Mr. Hines has designed, developed and managed multiple award winning energy efficiency programs, including the APS ENERGY STAR Homes program and the APS Home Performance with ENERGY STAR program. Throughout this time, Mr. Hines has worked closely with industry stakeholders to drive market transformation including builders, contractors, Realtors, lenders, raters and other trade allies. In the new homes industry, Mr. Hines has been a key proponent of using applied building science principles and home performance testing tools to improve building efficiency and performance.

Mr. Hines has extensive experience working directly with the Arizona Corporation Commission (ACC) providing direct testimony, developing filings and working directly with ACC staff during energy efficiency proceedings. Recent work includes acting as a strategic advisor on the design and development of APS' entire portfolio of DSM programs – working with program managers, implementation contractors, and evaluators to explore opportunities for maximizing cost effectiveness, and otherwise optimizing the APS portfolio of DSM programs. In this role, Mr. Hines prepares information and analysis on DSM program trends, technologies, opportunities, and challenges for senior executives and the utility's board of directors. From 1992-1997, Mr. Hines was a key technical resource developer for EcoGroup, a national energy efficiency services and consulting firm. In this role, Mr. Hines worked with over 30 utilities nationwide to develop home energy and water auditing tools that were delivered through an award winning high school energy efficiency curriculum. Responsibilities included project management, creating recommendation logic tables, and calculating energy savings and environmental benefits. Mr. Hines holds a masters degree in Environmental Planning from Arizona State University and is a board member of "EEBA" the Energy and Environmental Building Alliance, an organization devoted to advancing building science and energy efficient building practices.

## PROFESSIONAL EXPERIENCE

***Energy Efficiency Program Design for Commercial and Residential Programs, Arizona Public Service.*** Designed and developed multiple award winning EE programs including new homes, home performance, HVAC, duct repair, quality install, pool pumps, and lighting. Extensive experience designing, developing and implementing trade ally outreach programs.

***Program Management and Implementation.*** Program management responsibilities for a wide range of successful EE programs including residential lighting, HVAC, duct repair, pool pumps, and new homes. Managed multi-million dollar program budgets and consistently exceeded savings goals. Worked with over 30 electric, gas and water utilities nationwide developing and implementing EE educational outreach programs.

***Policy and Strategic Consulting Support.*** EE regulatory support and policy development including testimony at commission proceedings, meeting with commissioners and staff, developing filings and reports. Experience working with EE program cost effectiveness tests, developing program implementation plans, forecasting savings, and optimizing EE program portfolios

***Energy Efficiency Marketing and Communications.*** Designed and developed multiple award winning EE advertising and marketing campaigns. He is also served as the primary EE spokesperson for a major SW utility – extensive media experience in all forms.

# MIKE YIM, MS

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## **MIKE YIM, Market Specialist**

Tierra Resource Consultants, LLC  
1501 N. Broadway, Suite 300  
Walnut Creek, CA 94596  
Office: 925-949-8791 | Mobile: 408-209-3296  
Email: Mike.Yim@TierraRC.com  
Web: www.TierraRC.com

## **PROFESSIONAL HISTORY**

### **ENERGY MANAGEMENT CONSULTING**

- Specialist, Tierra Resource Consults, August 2013 to Present
- Associate Director, Navigant Consulting, January 2010 – July 2013
- Consultant, Summit Blue Consulting, August 2005 to December 2009
- Research Analyst, Purdue Energy Modeling Research Group (PEMRG), August 2004 – July 2005

### **EDUCATION**

- M.S., Purdue University, Industrial Engineering and Supply Chain Management, 2005
- B.S., University of California at Berkeley, Industrial Engineering and Operations Research, 2004

## **BIOGRAPHY**

Mr. Yim has extensive experience working within the Energy Efficiency Industry and has demonstrated expertise in analyzing the economic and energy-driven impacts of resource conservation programs implemented within a broad range of market sectors. This cross-cutting exposure has allowed Mr. Yim to construct pragmatic, cost-effective, methodologies to meet regulatory requirements and support other environmental initiatives. More recently, Mr. Yim developed the Strategic Energy Plan and Evaluation, Measurement & Verification (EM&V) framework for one of the largest Midwestern utilities in the United States. Mr. Yim is currently collaborating with the Northwest Energy Efficiency Alliance (NEEA) on the Commercial Building Stock Assessment (CBSA), which is funded by over 100 energy utility companies. The results from this study will be used to plan energy infrastructure needs in the states of Oregon, Washington, Idaho, and Montana.

## **PROFESSIONAL EXPERIENCE**

**2012 – 2014 Commercial Building Stock Assessment Study (CBSA).** Mr. Yim is currently collaborating with Navigant Consulting, Inc. to conduct the CBSA Study on behalf of the Northwest

Energy Efficiency Alliance (NEEA). The comprehensive market baseline study of commercial buildings in the Pacific Northwest spanning Washington, Oregon, Idaho, and Montana involves over 1,000 detailed building site surveys to capture information on energy usage history, end-use technologies, and operation and maintenance (O&M) characteristics. As the former Project Manager for the study, Mr. Yim led the development of region's commercial building population, sampling framework, data collection protocols and documentation, database structure and development, and data analysis. Mr. Yim is currently exploring the opportunity for synergies between the CBSA and the Commercial Building Energy Consumption Survey (CBECS). Study findings will inform the Northwest Power and Conservation Council's 7<sup>th</sup> Power Plan.

**Shared Pathways to Cleaner Air, Business Development Through Knowledge Exchange.** Mr. Yim collaborated with the Crown Parker Advisory Group and Office of President Xi Jinping to investigate innovative strategies and technologies for reducing air pollution that are leading edge, commercially viable, and can be implemented without sacrificing growth in economic output. The outcome of this report are currently being investigated by China's Ministry of the Environment to identify opportunities to integrate proposed solutions within existing infrastructure and policy.

**University of California/California State University (UC/CSU) Investor Owned Utilities (IOU) Energy Partnership Program Evaluation.** With an annual budget of \$32MM, the Partnership promoted custom efficiency retrofits, retro-commissioning (RCx), and education/awareness training. Key responsibilities included the development of a statistically representative evaluation sample, specification of rigorous Measurement & Verification (M&V) protocols including Calibrated Engineering Modeling, customer education/awareness interviews, and regulatory reporting.

**Market & Cost Assessment of VFD Retrofit Applications.** Mr. Yim led the Market & Cost Assessment of VFD retrofits in PSE's service territory, identified barriers to VFD adoption, characterized market potential, and quantified material and installation costs for VFD retrofits in variable air volume (VAV) HVAC systems (supply and return air fan motors). Through focused interviews with VFD distributors and installation contractors, the cost research and analysis disaggregated VFD retrofit costs into four cost components: equipment costs, installation costs, integration costs, and demolition costs.

## SELECTED PUBLICATIONS

- Yim, Mike, Tom Hines, Floyd Keneipp, Gavin Hastings, *Shared Pathways to Cleaner Air, Opportunities for Trade and Knowledge Exchange Between the PRC and USA Related to Clean Air Solutions*, The Office of President Xi Jinping.
- Yim, Mike, Deborah Swarts, Roger Hill, Phil Degens, August 2012 *Evaluation of Energy Savings in Varying Economic Conditions*, Energy Trust of Oregon.
- Yim, Mike, Stuart Schare, November 2009, *Incremental Cost and Market Assessment of Efficient Windows in Eastern Washington*, Northwest Energy Efficiency Alliance.
- Yim, Mike, Stu Slote, Floyd Keneipp, October 2009, *Best Practices for the Assessment of Incremental Costs in New Construction Programs*, Seattle City Light.
- Yim, Mike, Floyd Keneipp, March 2009, *Best Practices for the Assessment Residential Measure Costs*, Puget Sound Energy.
- Yim, Mike, David Nderitu, September 2004, *2004 Indiana Renewable Energy Resources Study*, Indiana Utility Regulatory Commission.

## EDUCATION AND PROFESSIONAL AFFILIATIONS

- MS, Industrial Engineering and Supply Chain Management, Purdue University, 2005
- BS, Industrial Engineering and Operations Research, 2004

# ERIC SHUM, PE

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## ERIC SHUM

Senior Consultant

Tierra Resource Consultants, LLC

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Walnut Creek, CA 94596

Mobile: 408-307-6936

Email: Eric.Shum@tierrarc.com

Web: www.TierraRC.com

## PROFESSIONAL HISTORY

### ENERGY MANAGEMENT CONSULTING

- Senior Consultant, Tierra Resource Consultants, LLC, August 2014 – Present
- Senior Consultant, Navigant Consulting, September 2013 – August 2014
- Consultant, Navigant Consulting, August 2011 – September 2013

### MECHANICAL ENGINEERING

- Undergraduate Researcher, University of California Irvine, September 2009 – January 2011
- R&D Hardware Engineering Intern, Beckman Coulter, June 2010 – September 2010

### INFORMATION TECHNOLOGY

- Internet Technician, Airwave Networks, June 2008 – June 2010

## EDUCATION

- B.S., University of California Irvine, Mechanical Engineering, 2011
- B.S., University of California Irvine, Materials Science, 2011

## BIOGRAPHY

Eric Shum is a Senior Consultant with Tierra Resource Consultants, LLC (Tierra). Mr. Shum has substantial experience working across energy efficiency and demand side management projects including complex engineering analysis for conventional and emerging technologies; equipment survival and building stock modeling; survey design and administration; field measurement and verification; market characterization and assessment; codes and standards impact analysis; utility portfolio assessments; cost research and valuation; and big data interpretation and management. He has been heavily engaged in developing data inputs and performing analysis for the residential, commercial, industrial, and agricultural sectors both at the measure and sector-end use levels nationally. He holds bachelor's degrees in mechanical engineering and materials science from the University of California, Irvine and is a registered professional engineer in the state of California.

## PROFESSIONAL EXPERIENCE

***2013-2015 Analysis to Update Energy Efficiency Potential, Goals and Targets for 2013 and Beyond, California Public Utilities Commission.*** Senior staff engineer on an update of the energy efficiency potential, goals, and targets for the state of California for the period 2013 through 2024.

Research and development of key modeling inputs

including: building stock parameters across California Investor Owned Utilities (IOU's - PG&E, SCE, SDG&E, SCG) consistent with California Energy Commission (CEC) Integrated Energy Policy Report (IEPR) forecasts; measure-level inputs for the residential and commercial sectors consistent with IOU work papers and aggregated ex-ante impact estimates from the Database for Energy Efficiency Resources (DEER); Saturation and baseline consumption estimates from the CEC Commercial End-Use Survey (CEUS) and Residential Appliance Saturation Study (RASS); weather normalization of key modeling inputs and parameters across CEC IEPR and Standard Program Tracking database (SPTdb) 0.98 specification building types; Data import and analysis from the U.S. Department of Energy (DOE) Industrial Assessment Center (IAC) database for the industrial and mining

sectors. Engineering support for discrete follow-on work orders and tasks including AB32 initiatives; updates to the California Strategic Energy Plan Local Government chapter; Grid impacts from the closure of the San Onofre Nuclear Generating Station (SONGS); refined locational estimates of potential defined by SIC, NAICS, CEC IEPR, and SPTdb 0.98 building types and climate zones, investigation of update potential for modeling inputs from the California Lighting Appliance and Efficiency Saturation Study (CLASS) and the Commercial Market Share Tracking and Commercial Saturation Survey (CMST & CSS).

***Regional Technical Forum (RTF) Phase II: Unit Energy Savings (UES) Measure Compliance.*** Project staff engineer to perform engineering reviews and updates to out-of-compliance RTF measure workbooks including Residential Domestic Hot Water - Efficient Tanks, Commercial New and Existing High Efficiency Refrigerators and Freezers, and Existing Vintage Residential Single Family Heat Pump Upgrades. Worked alongside RTF contract staff to develop a new measure workbook - New Construction Residential Single Family Heat Pump Upgrades.

***Bonneville Power Administration (BPA) Appliance Standards Impact Assessment.*** The BPA study was conducted to assess the impact of U.S. Department of Energy (DOE) appliance standards on the Pacific Northwest region. Served as project staff engineer and developed comprehensive energy impact models including complex survival stock modeling for the residential, commercial, and industrial sectors. Efficiency measures examined include: commercial and industrial liquid-immersed, medium voltage dry-type, and low-voltage dry-type distribution transformers; commercial air, liquid, and evaporative-cooled central direct expansion air conditioners and heat pumps; residential central direct-expansion air conditioners, heat pumps, and dishwashers.

***Energy Trust of Oregon (ETO) Potential Assessment.*** Served as a project staff engineer in a collaborative working relationship with the Energy Trust of Oregon (ETO) to forecast state-wide potential of program measures. Engaged ETO staff engineers and program managers in the development of residential and commercial measures, measure lists, and modeling inputs including: building stocks, equipment saturation, and costs. Generated residential and commercial inputs based on weather-zone normalized data through engineering reviews and analysis of regional resources such as the Commercial Building Stock Assessment (CBSA) and Residential Building Stock Assessment (RBSA) studies.

## Education and Professional Affiliations

- BS, Mechanical Engineering, University of California Irvine, 2011
- BS, Materials Science, University of California Irvine, 2011
- Professional Engineer, Mechanical Engineering, California (License # 37341)
- Order of the Engineer

## 4. Tab C: Cost/Price Proposal

### 4.1 Price Schedule

The following table presents the proposed full, fixed hourly billing rates for the key members of the MRW Team. These billing rates will be in effect for the term of the contract.

**Table 4: Price Schedule for MRW Team**

<b>MRW &amp; Associates (Prime Consultant)</b>			
<b>Staff Member</b>	<b>Classification/Expertise**</b>	<b>Task Area</b>	<b>Hourly Rate*</b>
William A. Monsen	Principal/Project Manager	Expert Witness on Rates, Resource Planning, and Policy	\$340
David N. Howarth	Principal	Economic Analysis of Resource Options	\$300
Mark E. Fulmer	Principal	Community Choice Aggregation, Exit Fees	\$300
Laura B Norin	Senior Project Manager	Rates and Policy	\$260
Anna Casas	Senior Associate	Rate Forecasting	\$165
Naina Gupta	Associate	Technical and analytical support	\$150
George Randolph	Associate	Technical and analytical support	\$135
<b>ASWB Engineering (Subcontractor)</b>			
<b>Staff Member</b>	<b>Classification/Expertise**</b>	<b>Task Area</b>	<b>Hourly Rate*</b>
Dennis Rowan	Principal Engineer	Bill and Tariff Monitoring	\$206
Mark Hinrichs	Senior Electrical Engineer	Bill and Tariff Monitoring	\$185
David Lu	Mechanical Engineer II	Bill and Tariff Monitoring	\$155
Salvador Heredia	Mechanical Engineer	Bill and Tariff Monitoring	\$144
<b>Tierra Resource Consultants (Subcontractor)</b>			
<b>Staff Member</b>	<b>Classification/Expertise**</b>	<b>Task Area</b>	<b>Hourly Rate*</b>
Floyd Keneipp	Principal	REN Strategy, Formation, and Regulatory Support	\$175
Marshall Keneipp	Principal	REN Strategy, Formation, and Regulatory Support	\$175
Tom Hines	Principal	REN Formation and Regulatory Support	\$190
Gavin Hastings	Director	REN Formation	\$160
Eric Shum	Senior Consultant	REN Formation	\$140
Mike Yim	Market Specialist	REN Formation	\$175
* Hourly rates for MRW are discounted by 10% relative to our normal billing rates.			
** See Attachment for Resumes			

## 4.2 Upper Bound Estimate of Fees and Expenses

As discussed in Tab B, MRW has identified a range of possible tasks that the City might request under this contract. Based on that assumed level of effort, we developed an estimate of the upper bound for fees and expenses for this project. The following table presents MRW's upper bound estimate of fees and expenses for this contract.

**Table 5: Upper Bound Estimate of Fees for Project**

	2014	2017	2020	2022	2025	2030
<b>Regulatory</b>						
GRC Phase 2	80,000	-	-	87,418	-	167,418
ERRA	30,000	30,900	31,827	32,782	33,765	159,274
NEM Issues	-	41,200	-	-	45,020	86,220
PCIA	25,000	-	26,523	-	-	51,523
SGIP	-	30,900	-	-	33,765	64,665
TOU Rulemaking	30,000	-	-	-	-	30,000
EE	30,000	-	31,827	-	33,765	95,592
CCA Application	60,000	61,800	-	-	-	121,800
REN Application	75,000	77,250	-	-	-	152,250
<b>Bill Review</b>						
Monthly Bill Review	200,000	206,000	212,180	218,545	225,102	1,061,827
Bill Review Model	20,000	-	-	-	-	20,000
Semi-Annual Tariff Review	30,000	30,900	31,827	32,782	33,765	159,274
Subtotal	580,000	478,950	334,184	371,527	405,183	2,169,844
Contingency (20%)	116,000	95,790	66,837	74,305	81,037	433,969
Subtotal	696,000	574,740	401,020	445,833	486,220	2,603,813
Expenses (5% of fees)	34,800	28,737	20,051	22,292	24,311	130,191
Total	730,800	603,477	421,071	468,124	510,531	2,734,003

**Proposal to Furnish the City of San Diego with Energy Consultant Services**

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Note that pursuant to the RFP, the City will determine the proceedings and activities it wishes to pursue under the Energy Consulting contract. The purpose of this table and our budget estimate is to provide the City with an upper bound on potential fees assuming that it undertakes ALL of these activities.<sup>11</sup>

Please note that the estimate of fees and expenses by task area are very uncertain. The MRW Team's proposed upper bound on fees is based on the total fees shown at the bottom of the table.

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<sup>11</sup> It is not possible to precisely identify all potential activities in which the City may need to participate. For example, the CPUC may open a rulemaking that is not anticipated in the above table. For that reason, MRW has added a contingency amount in its budget estimate.

The City of San Diego  
**COMPTROLLER'S CERTIFICATE**

**CERTIFICATE OF UNALLOTTED BALANCE**

ORIGINATING CC 3000009015  
 DEPT. NO.: 2115

I HEREBY CERTIFY that the money required for the allotment of funds for the purpose set forth in the foregoing resolution is available in the Treasury, or is anticipated to come into the Treasury, and is otherwise unallotted.

Amount: \_\_\_\_\_

Purpose: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Date: \_\_\_\_\_ By: \_\_\_\_\_

COMPTROLLER'S DEPARTMENT

ACCOUNTING DATA

Doc. Item	Fund	Funded Program	Internal Order	Functional Area	G/L Account	Business Area	Cost Center	WBS	Original Amount
TOTAL AMOUNT									

FUND OVERRIDE

**CERTIFICATION OF UNENCUMBERED BALANCE**

I HEREBY CERTIFY that the indebtedness and obligation to be incurred by the contract or agreement authorized by the hereto attached resolution, can be incurred without the violation of any of the provisions of the Charter of the City of San Diego; and I do hereby further certify, in conformity with the requirements of the Charter of the City of San Diego, that sufficient moneys have been appropriated for the purpose of said contract, that sufficient moneys to meet the obligations of said contract are actually in the Treasury, or are anticipated to come into the Treasury, to the credit of the appropriation from which the same are to be drawn, and that the said money now actually in the Treasury, together with the moneys anticipated to come into the Treasury, to the credit of said appropriation, are otherwise unencumbered.

Not to Exceed: \$1,000.00

Vendor: MRW & Associates, LLC for Energy Consultant Services

Purpose: Authorizing the Chief Financial Officer to expend an amount not to exceed \$1,000 from Fund 200224, Cost Center 2115110011, for the purpose of executing this agreement and meeting the minimum contract requirements.

Date: June 3, 2016 *6/8/16* By: Jonathan Alfuentes *Jonathan Alfuentes*

COMPTROLLER'S DEPARTMENT

ACCOUNTING DATA

Doc. Item	Fund	Funded Program	Internal Order	Functional Area	G/L Account	Business Area	Cost Center	WBS	Original Amount
	200224	NON-PROGRAM		OTHR-00000000-SH	512059	2115	2115110011		\$1,000.00
TOTAL AMOUNT									\$1,000.00

FUND OVERRIDE