

PROFESSIONAL SERVICES AGREEMENT

Roseville Electric Utility – Generation Division Emissions Modeling and Compliance Support

THIS AGREEMENT is made and entered into this 24th day of May, 2020
by and between the City of Roseville, a municipal corporation (“CITY”), and Atmospheric
Dynamics, Inc., a California corporation (“CONSULTANT”); and

W I T N E S S E T H:

WHEREAS, CITY desires professional services consisting of Generation Division Emissions
Modeling and Compliance Support for Roseville Electric Utility; and

WHEREAS, CONSULTANT has prepared a proposal dated March 5, 2020, which
describes the scope of work to be performed by CONSULTANT, the budget for the work, and
the schedule for performance of the work; and

WHEREAS, CONSULTANT is qualified and experienced to provide such professional
services.

NOW, THEREFORE, the parties agree as follows:

1. Services. CONSULTANT shall perform, at the direction of CITY, the scope of
services as described in EXHIBIT “A,” attached hereto and incorporated herein by this
reference.

2. Compensation. For its services provided hereunder, CONSULTANT shall be
compensated on a time and expense basis in accordance with the budget estimate as described in

EXHIBIT "B," attached hereto and incorporated herein by this reference. Total compensation shall not exceed one hundred eighty-three thousand, five hundred dollars (\$183,500).

CONSULTANT shall submit one monthly invoice for its services. Such invoices shall be delineated by task, the person performing the services, and the hourly rate, which shall be stated in time increments of not greater than one tenth (1/10) hours. CITY shall pay invoices within thirty (30) days after receipt, if the services specified in the invoice have been satisfactorily completed.

3. Indemnification. To the fullest extent allowed by law, CONSULTANT shall defend, indemnify, and save and hold harmless CITY, its officers, agents, employees and volunteers from any claims, suits or actions of every name, kind and description brought forth, or on account of, injuries to or death of any person (including but not limited to workers and the public), or damage to property, resulting from or arising out of CONSULTANT's willful misconduct or negligent act or omission while engaged in the performance of obligations or exercise of rights created by this Agreement, except those matters arising from CITY's sole negligence or willful misconduct. The parties intend that this provision shall be broadly construed.

CONSULTANT's responsibility for such defense and indemnity obligations shall survive the termination or completion of this Agreement for the full period of time allowed by law. The defense and indemnity obligations of this Agreement are undertaken in addition to, and shall not in any way be limited by, the insurance obligations contained in this Agreement.

4. Insurance. CONSULTANT agrees to continuously maintain, in full force and effect, the following minimum policies of insurance during the term of this Agreement.

<u>COVERAGE</u>	<u>LIMITS OF LIABILITY</u>
Workers' Compensation	Statutory
Commercial General Liability	\$1,000,000 each occurrence \$2,000,000 aggregate Personal Injury: \$1,000,000 each occurrence \$2,000,000 aggregate
Automobile Liability	\$1,000,000 combined single limit
Professional Liability (errors and omissions)	\$1,000,000 per claim \$2,000,000 aggregate

a. Form. CONSULTANT shall submit a certificate evidencing such coverage for the period covered by this Agreement in a form satisfactory to Risk Management and the City Attorney, prior to undertaking any work hereunder. Any insurance written on a claims made basis is subject to the approval of Risk Management and the City Attorney.

b. Additional Insureds. CONSULTANT shall also provide a separate endorsement form or section of the policy showing CITY, its officers, agents, employees and volunteers as additional insureds for each type of coverage, except for Workers' Compensation and Professional Liability. Such insurance shall specifically cover the contractual liability of CONSULTANT. The additional insured coverage under the CONSULTANT's policy shall be primary and noncontributory, as evidenced by a separate endorsement or section of the policy, and shall not seek contribution from CITY's insurance or self-insurance. In addition, the additional insured coverage shall be at least as broad as the Insurance Services Office ("ISO") CG 20 01 Endorsement. Any available insurance proceeds in excess of the specified minimum insurance coverage requirements and limits shall be available to the additional insureds.

Furthermore, the requirements for coverage and limits shall be: (1) the minimum coverage and

limits specified in this Agreement; or (2) the full coverage and maximum limits of any insurance proceeds available to the named insureds, whichever is greater.

c. Cancellation/Modification. CONSULTANT shall provide ten (10) days written notice to CITY prior to cancellation or modification of any insurance required by this Agreement.

d. Umbrella/Excess Insurance. The limits of insurance required in this Agreement may be satisfied by a combination of primary and excess insurance. Any excess insurance shall contain or be endorsed to contain a provision that such coverage shall also apply on a primary and noncontributory basis for the benefit of CITY (if agreed to in a written contract) before CITY's own insurance shall be called upon to protect it as a named insured.

e. Subcontractors. CONSULTANT agrees to include in its contracts with all subcontractors the same requirements and provisions of this Agreement, including the indemnity and insurance requirements, to the extent they apply to the scope of the subcontractor's work. Furthermore, CONSULTANT shall require its subcontractors to agree to be bound to CONSULTANT and CITY in the same manner and to the same extent as CONSULTANT is bound to CITY under this Agreement. Additionally, CONSULTANT shall obligate its subcontractors to comply with these same provisions with respect to any tertiary subcontractor, regardless of tier. A copy of CITY's indemnity and insurance provisions will be furnished to the subcontractor or tertiary subcontractor upon request.

f. Self-Insured Retentions. All self-insured retentions ("SIR") must be disclosed to Risk Management for approval and shall not reduce the limits of liability. Policies containing any SIR provision shall provide or be endorsed to provide that the SIR may be satisfied by either the named insured or CITY. CITY reserves the right to obtain a full

certified copy of any insurance policy and endorsements. The failure to exercise this right shall not constitute a waiver of such right.

g. Waiver of Subrogation. CONSULTANT hereby agrees to waive subrogation which any insurer of CONSULTANT may acquire from CONSULTANT by virtue of the payment of any loss under a Workers Compensation, Commercial General Liability or Automobile Liability policy. All Workers Compensation, Commercial General Liability and Automobile Liability policies shall be endorsed with a waiver of subrogation in favor of CITY, its officers, agents, employees and volunteers for all work performed by CONSULTANT, its employees, agents and subcontractors.

h. Liability/Remedies. Insurance coverage in the minimum amounts set forth herein shall not be construed to relieve CONSULTANT of liability in excess of such coverage, nor shall it preclude CITY from taking such other actions as are available to it under any other provisions of this Agreement or law.

5. Records. CONSULTANT and its subcontractors shall maintain all files and records relating to the services performed hereunder during the term of this Agreement and for a period of not less than one (1) year after the date of termination or expiration. Provided, however, that in the event of litigation or settlement of claims arising from the performance of this Agreement, CONSULTANT and its subcontractors shall maintain all files and records until such litigation, appeals or claims are resolved. Duly authorized representatives of CITY shall have right of access during normal business hours and after reasonable notice to CONSULTANT's and subcontractors' files and records relating to the services performed hereunder, and may review and copy the files and records at appropriate stages during performance of the services and during the one (1) year period following termination or

expiration of this Agreement. CONSULTANT shall include this provisions in its contracts with all subcontractors.

6. Time is of the Essence. Time is of the essence of this Agreement.

7. Compliance with Laws. CONSULTANT shall comply with all federal, state and local laws, ordinances and policies as may be applicable to the performance of services under this Agreement.

8. Ability to Perform. CONSULTANT agrees and represents that it has the time, ability and professional expertise to perform the services required under this Agreement.

9. Governing Agreement. In the event of any conflict between this Agreement and its EXHIBITS, the provisions of this Agreement shall govern. In the event of any conflict between any of the EXHIBITS, the provisions of the first in order of attachment shall govern.

10. Assignment. CONSULTANT is employed to perform unique personal services. CONSULTANT shall not assign this Agreement without the prior written consent of CITY. CONSULTANT shall not employ or otherwise incur any obligation to pay other specialists or experts for services in connection with this Agreement, without prior written consent of CITY.

11. Independent Contractor. CONSULTANT shall act as an independent contractor, and covenants and agrees that it will conduct itself consistent with such status, that it will neither hold itself out as, nor claim to be, an officer or employee of CITY by reason of this Agreement.

12. Representations and Warranties. CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working for CONSULTANT, to solicit or secure this Agreement, and that it has not paid or agreed to pay any company or person, other than a bona fide employee, any fee, commission, percentage, brokerage fee, gift or any other consideration, contingent upon or resulting from the award or

making of this Agreement. For breach or violation of this warranty, CITY shall have the right to terminate as void this Agreement, without liability, or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gift or contingent fee.

13. Successors in Interest. This Agreement shall be binding upon the heirs, successors, executors, administrators and assigns of the respective parties hereto.

14. Copyright, Ownership and Use of Materials. All tangible material ("Material") created or delivered pursuant to this Agreement is considered a work made for hire under the Copyright Act. To the extent such Material does not qualify as a work made for hire, CONSULTANT hereby assigns to CITY all right, title, and interest, including but not limited to all copyrights, in all Material created by CONSULTANT in its performance under this Agreement. Material constitutes the scope of work outlined in Exhibit A and attached hereto, and all written and other tangible expressions, including but not limited to, drawings (including computer aided drawings), papers, documents, reports, surveys, renderings, exhibits, sketches, maps, models, prints, paintings or photographs, in any and all media or formats in which such materials have been created or are maintained. All Material furnished by CONSULTANT is, and shall remain, the property of CITY.

CONSULTANT shall execute any documents necessary to effectuate such assignment. In the event that CONSULTANT uses, employs, designates, or retains any person or entity who is not an employee of CONSULTANT, to perform any work required of it pursuant to this Agreement, CONSULTANT shall require said person or entity to execute an agreement containing the preceding paragraph.

15. Termination of Agreement. The City may terminate this Agreement without cause by giving CONSULTANT ten (10) days advance written notice from the City Manager. CONSULTANT may terminate this Agreement without cause by giving CITY thirty (30) days advance written notice. In the event of termination through no fault of CONSULTANT, CITY shall compensate CONSULTANT for services performed as of the date of termination, upon the release to CITY of all Material hereunder, in any and all media or formats in which such materials have been created or are maintained. CITY retains the right to receive and use any Material, notwithstanding any termination or any dispute regarding the amount to be paid.

16. Attorney's Fees; Venue; Governing Law. If either party commences any legal action against the other party arising out of this Agreement or the performance hereof, the prevailing party in such action shall be entitled to recover its reasonable litigation expenses, including but not limited to, court costs, expert witness fees, discovery expenses, and attorney's fees. Any action arising out of this Agreement shall be brought in Placer County, California, regardless of where else venue may lie. This Agreement shall be governed by and construed in accordance with the laws of the State of California.

17. Modification. This Agreement and each provision contained herein may be waived, amended, supplemented or eliminated only by mutual written agreement of the parties.

18. Severability. If any of the provisions contained in this Agreement are for any reason held invalid or unenforceable, such holding shall not affect the remaining provisions or the validity and enforceability of the Agreement as a whole.

19. Notices. Any notices to parties required by this Agreement shall be delivered personally or mailed, U.S. first class postage prepaid, addressed as follows:

CITY OF ROSEVILLE

Matt Garner
5120 Phillip Road
Roseville, CA 95747

CONSULTANT

Gregory Darvin
P.O. Box 5907
Carmel-by-the-Sea, CA 93921

Either party may amend its address for notice by giving notice to the other party in writing.

20. Integrated Agreement. This is an integrated agreement and contains all of the terms, considerations, understanding and promises of the parties. It shall be read as a whole.

IN WITNESS WHEREOF, the City of Roseville, a municipal corporation, has authorized the execution of this Agreement in duplicate by its City Manager and attested to by its City Clerk under the authority of Resolution No. _____, adopted by the Council of the City of Roseville on the ____ day of _____, 20__, and CONSULTANT has caused this Agreement to be executed.

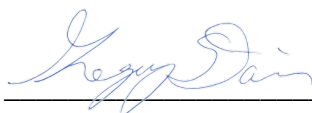
CITY OF ROSEVILLE, a
municipal corporation

ATMOSPHERIC DYNAMICS, INC., a
California corporation

BY: _____
DOMINICK CASEY
City Manager

ATTEST:

BY: _____
SONIA OROZCO
City Clerk

BY: 
its: Gregory Darvin/President

and
BY: 
its: Gregory Darvin/Secretary

[SIGNATURES CONTINUED ON FOLLOWING PAGE]

APPROVED AS TO FORM:

BY: _____
ROBERT R. SCHMITT
City Attorney

APPROVED AS TO SUBSTANCE:

BY: _____
MICHELLE BERTOLINO
Electric Utility Director

EXHIBIT “A”

City of Roseville

RFP Submittal

Roseville Electric Utility – Generation Division Emissions Modeling and Compliance Support

Roseville, California

Prepared for



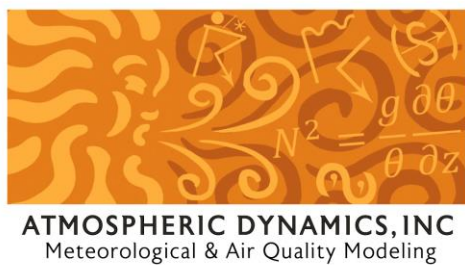
Prepared by

Atmospheric Dynamics, Inc.



ATMOSPHERIC DYNAMICS, INC
Meteorological & Air Quality Modeling

March 2020



March 5, 2020

City of Roseville
Attn: City Clerk Department
311 Vernon Street
Roseville, CA 95679

Subject: Roseville Electric Utility – Generation Division Emissions Modeling and Compliance Support

Dear Madam/Sir,

As per the instruction of the February 12th, 2020 Request for Proposals (RFP), Atmospheric Dynamics, Inc. (ADI) has prepared the attached response package and scope of work in order to support the Generation Division Emissions Modeling and Compliance Support RFP. The majority of the work effort will focus on the Roseville Energy Park (REP) turbine upgrade project (Project) which will require a Placer County Air Pollution Control District (PCAPCD) permit modification as well as a California Energy Commission (CEC) license amendment. The proposed project will upgrade the existing two (2) Siemens SGT-800 natural gas turbines with a performance and efficiency enhancement package, called the A Plus upgrade, that will increase the total generation from the facility and improve the facility heat rate. The project may result in small increases in emissions along with changes to the modeled stack parameters which were used in the permitting of the facility. ADI will support Generation Division Staff for both permitting efforts with the PCAPCD and CEC by responding to as needed data requests and agency meetings. As needed, additional work associated with Roseville Power Plant #2, which is comprised of two General Electric MS5001 (Frame 5) natural gas turbines, will be prepared under the general air quality scope which is included with the response package.

As requested in the RFP, we are providing the following information:

- Physical Address
Atmospheric Dynamics, Inc.
Torres 3 SW of Mountain View
Carmel-by-the-Sea, CA 93921
- Mailing Address
Atmospheric Dynamics, Inc.
PO Box 5907
Carmel-by-the-Sea, CA 93921
- Contact Information
Gregory Darwin
831.620.0481
831.620.0482 (fax)
darwin@atmosphericdynamics.com



- ADI will perform all required services as outlined in the Generation Division Emissions Modeling and Compliance Support RFP and will adhere to all of the requirements as described.

We appreciate the opportunity to respond to this RFP. Please email me call at (831) 620-0481 if you have any questions or if you wish to discuss any aspect of this proposal.

Regards,

Atmospheric Dynamics, Inc.



Gregory Darwin
President



TAB A
ADI Qualifications



Description and Qualifications

Atmospheric Dynamics, Inc. was started by Gregory Darvin as a small but specialized consulting firm with experience in the regulatory and technical aspects of air quality issues. Mr. Darvin has developed this experience over the last 32 years. While not retaining any other employees than Mr. Darvin, ADI has two (2) subconsultants that have worked with the firm since it was founded in 2002 and continue to work with ADI to this day.

ADI has extensive experience in air quality management, dispersion modeling, meteorological modeling, odor modeling, greenhouse gas emission inventories, monitoring, major source permitting, complex terrain model development and implementation, emission inventory and health risk assessments. Our experience spans more than 35 different states and several countries. We also have extensive experience in California with the preparation of California Energy Commission (CEC) licenses and amendments focusing on air quality and public health in support of large-scale power projects.

ADI has been actively involved with many of the proposed power plants in California requiring a Prevention of Significant Deterioration or New Source Review (PSD/NSR) permits for many large-scale solid fuel and gaseous fuel projects across the United States. ADI has performed the following in support of CEC and PSD/NSR permit applications for utilities: baseline air quality and air quality modeling analyses (including preparation and negotiation of the modeling protocol), preparation of the PSD/NSR regulatory applicability analyses, preparation of emissions inventories, Class I Air Quality Related Values (AQRVs) assessments, cooling tower plume modeling for visual impacts and preparation of Best Available Control Technology (BACT) evaluations.

Specific project experience includes emissions calculations, modeling of impacts, evaluation of regulatory applicability and compliance, NSR and PSD permitting, and minor source permitting. ADI has used and is thoroughly familiar with a number of air quality models, including AERMOD, AERMET, CALPUFF, CALMET, WRF, MM5, COMPLEX I AND II, FDM, RTDM, CTSCREEN, CTDMPPLUS, UAM-V, DEGADIS, SPILLS, VISCSCREEN, PLUVUEII, MESOPUFF, INPUFF, BLP, PAL, CAMEO, CAL3QHC, CALINE4, OCD5, RAM, TRACE, SLAB, and the Paris Airshed Model. These models have been used in scientific and development settings as well as in regulatory settings.

Services

The following services will be performed by ADI with assistance from our sub-contractors:

- State and federal air quality regulatory review and permitting including NSR and PSD (ADI with assistance from sub-contractor)



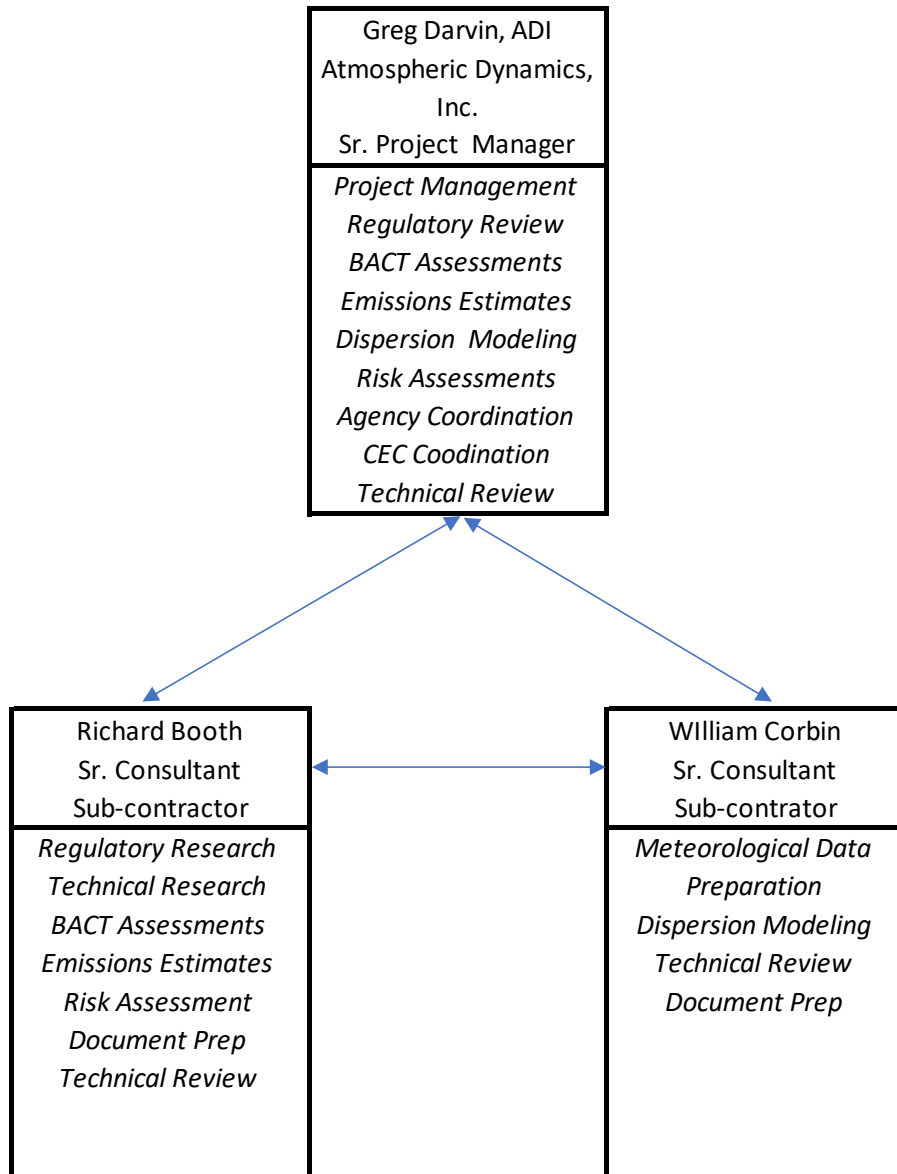
- California Energy Commission license and amendment development for air quality and public health (ADI with assistance from sub-contractor)
- Criteria pollutant emission inventories including greenhouse gases (ADI with assistance from sub-contractor)
- Hazardous air pollutant emission inventories (ADI with assistance from sub-contractor)
- Best available control technology evaluations (ADI with assistance from sub-contractor)
- Lowest achievable emission rate evaluations (ADI with assistance from sub-contractor)
- Meteorological data set development (ADI with assistance from sub-contractor)
- Air quality dispersion modeling (ADI with assistance from sub-contractor)
- Cooling tower plume assessments (ADI with assistance from sub-contractor)
- Health risk assessments and modeling (ADI with assistance from sub-contractor)
- Risk management plans (ADI with assistance from sub-contractor)
- Title V operating permits (ADI with assistance from sub-contractor)
- Acid rain permits (ADI with assistance from sub-contractor)
- CEC, EPA and PCAPCD compliance support (ADI with assistance from sub-contractor)

Staffing

ADI is comprised of Gregory Darvin as its President and Senior Meteorologist/Permit Manager will be assisted by two sub-contractors, Richard Booth and William Corbin who have been working with Mr. Darvin since the mid 1990's. There has been no variation in staffing with this core group in the past five (5) years. As noted in the following tabs, the project team presented in this proposal is the same project team that had worked on the original REP project and on the recent Malburg Generating Station which was an identical project to what REP is proposing. This proposed team has also worked on most of the projects that have been listed in the following TABs.



Atmospheric Dynamics, Inc.
Organizational Chart
Roseville Electric Siemems A+ Upgrade Project
Air Quality and Public Health



TAB B
Experience and References



Experience

Atmospheric Dynamics, Inc. (ADI) has worked extensively in the permitting and dispersion modeling of over 40 electrical generation projects within the State of California over the last 30 years. Table 1 summarizes our experience with power plants. Most of the projects listed in Table 1 were prepared by the project team proposed for this RFP. In the brief summaries below, please note that all air quality analyses included the following technical areas:

- Regulatory review and permit condition negotiation
- Emission inventories
- Control technology determinations
- Dispersion modeling
- Health Risk Assessments
- Secondary impacts to biological or visual resources

ADI, with the same team as presented here, prepared the Placer County Air Pollution Control District (PCAPCD) permit application and California Energy Commission (CEC) air quality/public health sections for the Roseville Energy Park (REP) Application for Certification. The application included the use of two different types of turbines, Siemens SGT-800 (formally Alstom) and GE LM6000's allowing for REP to decide at a later date which technology to install. ADI also prepared the original Title V Operating Permit application for REP.

ADI also prepared the Bay Area Air Quality Management District (BAAQMD) and CEC air/public health sections for licensing the Donald Von Raesfeld (DVR) power plant for the City of Santa Clara/Silicon Valley Power (SVP). The project was a 147 MW combined cycle design that utilized GE LM6000 natural gas turbines. ADI has provided support services for DVR over the last five years. Recently, permit modifications to the BAAQMD and license amendments to the CEC were made to support utilizing a third GE LM6000 turbine to be used as a spare when one of the other two were out for GE scheduled maintenance. Additional on-going compliance services are also provided.

Recently, ADI prepared the air quality permit application and CEC license amendment for the Malburg Generation Station (MGS) Siemens SGT-800 A+ upgrade. MGS operates an almost identical facility in the City of Vernon with (2) two Siemens SGT-800 natural gas turbines and heat recovery steam generators (HRSGs) in combined cycle operation. Our approach was to increase the fuel use and short-term hourly emissions under the existing annual facility permit limit, thus allowing for an increase in short-term emissions without the need for additional offsets. The project received approval from the CEC in June 2019.

Prior to the MGS project, ADI prepared the air quality permit and CEC air quality/public health sections of the CEC AFC for the Stanton Energy Reliability Center (SERC), which included two GE LM-6000 natural gas turbine, operated in simple cycle mode. The project



also included the use of integrated battery storage which allowed for turbine operations near one (1) percent load ranges while maintaining emissions compliance with the Best Available Control Technology (BACT) limits. The project was licensed in November 2018.

ADI prepared the air quality permit application, including the Prevention of Significant Deterioration (PSD) application and CEC license amendment for the Palmdale Energy Project (PEP). PEP is a 645 MW combined cycle power plant, comprised of two Siemens 5000F Fast Start natural gas turbines and associated HRSGs with dry cooling. Included with the modeling and permitting efforts, vertical plume velocity modeling was performed to determine the projects impacts on nearby airport operations. The project obtained the necessary permits for construction as well as the final commission decision from the CEC.

Currently, ADI provides ongoing emissions, modeling, compliance and regulatory support services for the following power generation companies:

- Silicon Valley Power
- Pacific Gas and Electric
- Southern California Edison
- Calpine
- Southwest Generation
- Merit Energy
- Wellhead Electric
- Summit Power

References

Malburg Generating Station

Kyle McCormack
Environmental Manager
Heorot Power Management
4963 Soto Street
Vernon, California 90058
(p) 303-607-5590
(c) 323-775-3873
Email: kmccormack@heorotpower.com

Palmdale Energy Project

Tom Cameron
Vice President
Summit Power
15 Panorama Crest Ave.
Las Vegas, Nevada 89135



(p) 702-360-0186

(c) 262-853-3777

Email: tcameron@summitpower.com

Silicon Valley Power

Damon Beck

Division Manager - Compliance

City of Santa Clara/Silicon Valley Power

1705 Martin Ave.

Santa Clara, CA 95050

(p) 408-615-6555

(c) 408.426.7667

dbeck@svpower.com



Table 1 Power Plant Project Experience

Client/Project	Project Type	NSR Permitting	PSD Permitting	Dispersion Modeling	Emissions Inventory	HAP's	Evaluation	Impact	Analysis BACT/LAER	Evaluation Regulatory	Analysis Risk	Assessment	Title V	Permit Modifications	Compliance	Audit	CEC License	CEC	Amendment
Roseville Energy Park (Roseville Electric)	CC	X		X	X	X	X	X	X	X	X	X	X		X	X			
Malburg Generating Station A+ Upgrade	CC	X		X	X	X	X	X	X	X	X				X	X			
Pio Pico Energy Center (SW Gen)	SC	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			
Palmdale Energy Project (Summit Power)	CC	X	X	X	X	X	X	X	X	X	X				X	X			
Los Medanos Energy Center (Calpine)	SS/CC	X		X	X	X	X	X	X	X	X				X	X			
Metcalf Energy Center (Calpine)	CC	X	X	X	X	X	X	X	X	X	X	X	X		X	X			
Silicon Valley Power (DVR and Cogen)	CC	X		X	X	X	X	X	X	X	X	X	X		X	X			
Russel City Energy Center (Calpine)	CC	X	X	X	X	X	X	X	X	X	X	X	X		X	X			
Humboldt Bay Generating Station (PG&E)	ICE	X	X	X	X	X	X	X	X	X	X		X		X	X			
Mountainview Generating Station (SCE)	CC	X	X	X	X	X	X	X	X	X	X	X	X		X	X			
Walnut Creek Energy Park (EME)	SS/CC	X		X	X	X	X	X	X	X	X		X		X	X			
Watson Cogeneration Project (NRG)	CC (COGEN)	X	X	X	X	X	X	X	X	X	X	X	X		X	X			
Los Esteros (Calpine)	SS/CC	X		X	X	X	X	X	X	X	X		X		X	X			
Mojave Solar Project (Abengoa Solar)	SOLAR	X		X	X	X	X	X	X	X	X	X	X		X	X			
Olay Mesa (Calpine)	CC	X	X	X	X	X	X	X	X	X	X	X	X		X	X			
Stanton Energy Reliability Center	SS/CC	X		X	X	X	X	X	X	X	X				X				
Colusa Generating Station (PG&E)	CC				X	X				X			X		X				
Gateway Generating Station (PG&E)	CC			X						X			X		X				
King City Cogen (Calpine)	COGENERATION	X				X													
Cogentrix Quail Brush	ICE	X	X	X	X	X	X	X	X	X	X				X				
East Shore Energy Center	ICE	X		X	X	X	X	X	X	X	X				X				
CC = combined cycle																			
SC = simple cycle																			
ICE = internal combustion engine technology																			





TAB C
Qualifications of the ADI Team



Qualifications

The group presented below have worked together since prior to the founding of ADI in 2002 and had all worked on the original REP project as well as most of the projects listed in **Tab B: Experience and References**. Given the extensive experience of the team members working for ADI, many of the work products can be produced by any member of the team. ADI is located in Carmel, California.

Gregory Darwin: Project Manager and Technical Leader (Carmel, California)

Mr. Gregory Darwin will serve as the project manager and technical leader for the project. Mr. Darwin has specialized in the regulatory and technical aspects of air quality issues for the last 32 years. He has extensive experience in air quality management, dispersion modeling, meteorological modeling, greenhouse gas emission inventories, monitoring, major source permitting, complex terrain model development and implementation, emission inventory and health risk assessments. His experience with the CEC spans more than 20 years. Mr. Darwin will also QA/QC the emission inventories and dispersion modeling data sets.

He has been actively involved with CEC and environmental permits for many large-scale solid fuel, gaseous fuel, solar, and geothermal projects across California in addition to supporting oil, gas and mining operations and permits. Mr. Darwin has performed the following in the management and support of CEC and air quality permit applications: baseline air quality and air quality modeling analyses (including preparation and negotiation of the modeling protocol), prepared the PSD and air permit regulatory applicability analyses and permits, managed the preparation of the air quality emissions inventories, and prepared the Best Available Control Technology (BACT) evaluations.

Richard Booth: Task Leader for Emissions Inventories, BACT and the HRA

Mr. Richard Booth will be the lead for preparing the emissions inventories, control technology assessment and regulatory review. Mr. Booth has over 44 years of experience in the field of air quality engineering and environmental pollution control consulting. He has worked with ADI over the last 18 years. He has served as a project manager and team member on a wide variety of air, water, and solid and hazardous waste environmental and regulatory permitting projects for the energy and industrial sectors throughout California and the nation. He has been involved in numerous projects for the utility and independent power producer sectors, as well as the pulp and paper, wood products, and minerals industries. He has extensive experience in the areas of air quality related to minor and major new source permitting, NSR and PSD permitting, RACT-BACT-MACT-LAER determinations, cost effectiveness evaluations, Title IV/V permitting, air toxics evaluations, air dispersion modeling, health risk assessment, emissions inventory



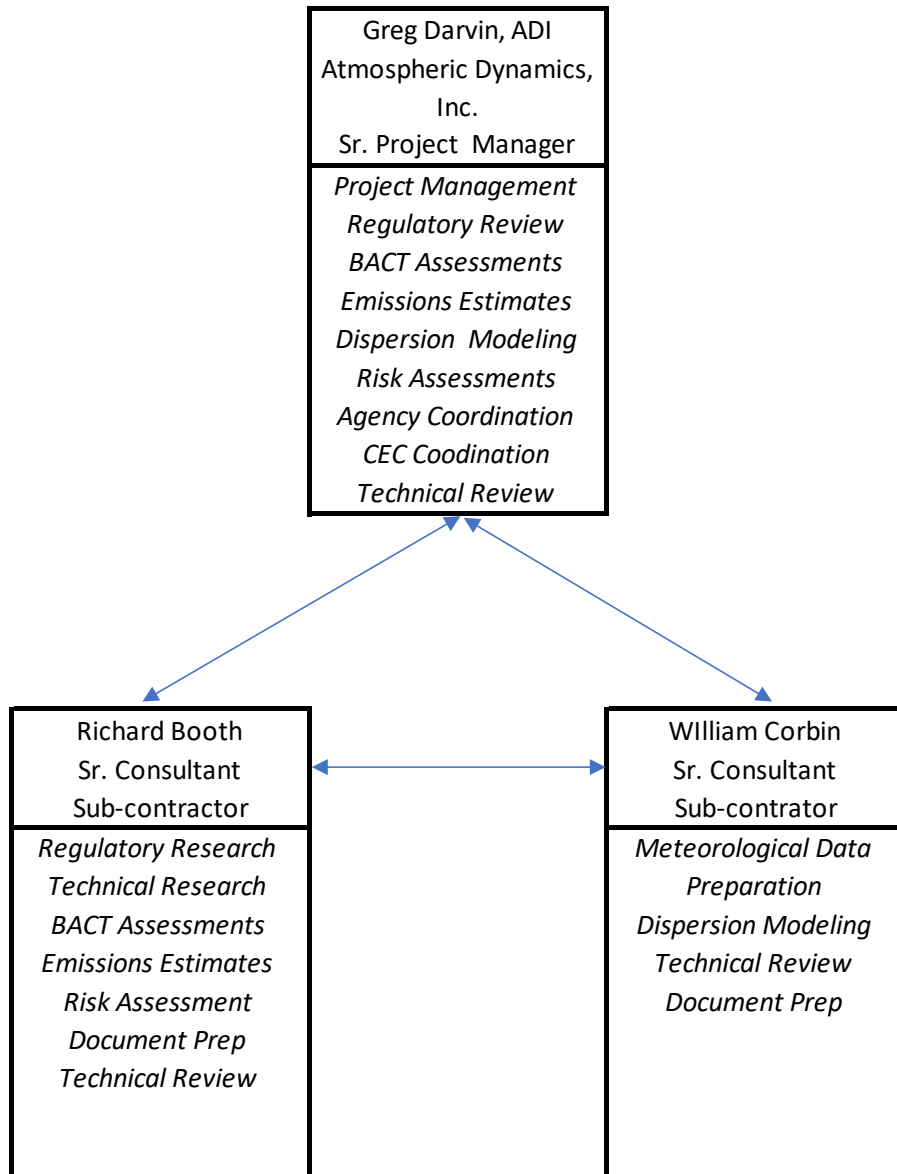
preparation (criteria and toxic pollutants, and greenhouse gases), regulatory compliance, rule development, and impact analysis.

William Corbin: Task Leader for Dispersion Modeling

Mr. William Corbin will the lead for preparing the background meteorology, air quality summaries and for preparing the dispersion modeling assessments. He has provided air quality permitting and modeling services for 35 years to a large number of different clients and industries, possessing extensive experience with USEPA air quality regulations such as Prevention of Significant Deterioration (PSD), Title V Permits, New Source Performance Standards (NSPS), and Maximum Achievable Control Technology (MACT); state air permitting programs; and other environmental program submittals such as Toxic Release Inventory (TRI) reporting and Community Right-to-Know (CRtK) surveys. He has also performed innumerable air quality modeling analyses, using the latest USEPA modeling systems AERMOD and AERSCREEN, including preparing meteorological data with AERSURFACE, AERMINUTE, and AERMET and receptor grids with AERMAP. He has worked with ADI over the last 18 years.



Atmospheric Dynamics, Inc.
Organizational Chart
Roseville Electric Siemems A+ Upgrade Project
Air Quality and Public Health



TAB D
Project Understanding



Requested Services

SGT-800 A+ Upgrade

As noted in the previous Tabs, ADI has just recently completed an identical project for the Malburg Generating Station (MGS), which installed the Siemens A+ Upgrade on their SGT-800 turbines. The SGT-800 is a single shaft engine that consists of inlet housing, 15 stage axial compressor, an annular serial cooled combustor, a 3-stage axial turbine and an outlet diffuser. In order to meet the engine operation requirements, the first three stages of the compressor are made of variable guide vanes. The combustor is equipped with a Dry Low Emissions (DLE) dual fuel burners with a capability of NO_x less than 25 ppmv and CO at 5 ppmv in the load range of 50-100 percent. The first two turbine stages are air cooled and for the stage 1 blades, a single crystal material is used.

The upgrade package is called the Siemens SGT-800 A-Plus Upgrade which will raise the generator's output to approximately 47 MW or equivalent. The A-Plus Upgrade will result in the redesign of the stage 1 vanes and blades in the hot gas path along with an improved cooling system from vanes 1 and 2 which will result in an increase in turbine efficiency. Specifically:

- Replace the row 1 compressor blades with a functionally different design to increase the air flow
- The redesigned row 1 Turbine vanes will contain a new coating and vent holes to accommodate the changes to heat and air flow from the updated Row 1 compressor blades.
- Redesigned row 2 vanes which will also incorporate a new coating and additional vent holes to accommodate the changes to heat and air flow.
- Optimized Cooling Air System

Based on the redesigned bladed and vanes, the following design changes are noted:

- The compressor efficiency has been improved due to the increase of the mass flow. The new compressor blade 1 has a slightly opened profile but there will be no change in the blade material. Additionally, several improvements have been done on turbine blade 1 which will include a new thermal barrier coating and the optimization of the number and positioning of the cooling holes which will result in a reduction of metal temperature.
- For vanes 1 and 2, the cooling air consumption has been optimized but the vane shape, vane material and vane coatings remain unchanged.

The enhanced performance based on the exchanged parts is primarily the result of increased air mass flow and the optimized cooling air of the main turbine section. In addition to the increased mass flow, the new blade design also offers increased compressor efficiency and operating range in terms of pressure ratio and temperature.



This results in improved compressor stability which would then allow the compressor to operate with fully open inlet guide vanes at higher ambient temperatures which will maintain a high mass flow and consequently, will allow for increased turbine output during hot ambient conditions.

There will be a slight increase in the exhaust temperature along with a small increase in mass flow. Overall, the efficiency improvement of the turbine is expected to result in a two percent decrease in fuel consumption per kWh.

Requested Services

As per the instruction of the February 12th, 2020 Request for Proposals, Atmospheric Dynamics, Inc. (ADI) will to support the Roseville Energy Park (REP) turbine upgrade project (Project) which will require a Placer County Air Pollution Control District (PCAPCD) permit modification as well as a California Energy Commission (CEC) license amendment. The proposed project will upgrade the existing two (2) Siemens SGT-800 natural gas turbines with a performance and efficiency enhancement package, called the A Plus (+) upgrade, that will increase the total generation from the facility and improve the facility heat rate. The project may result in small increases in emissions along with changes to the modeled stack parameters which were used in the permitting of the facility.

The basic assumptions underlying our proposed scope of work are as follows:

- The facility will be subject to the California Energy Commission (CEC) review and certification process (amendment)
- The facility is proposing to upgrade the existing Siemens SGT-800 natural gas turbines operated in combined cycle mode.
- The project is located within the jurisdiction of the Placer County Air Pollution Control District
- The project will not trigger the requirements of the Federal Prevention of Significant Deterioration (PSD) program.
- The project will include NSR requirements for NO_x, VOCs, CO, SO₂, and PM₁₀/PM_{2.5}.

The PCAPCD will require an application to support the requested turbine modification which may require dispersion modeling and/or revisions to the health risk assessment. This requirement is dependent upon the potential increase in fuel use and emissions. We would also assume that a period of short commissioning activities would be required in order to tune the turbine to its optimal efficiency, as is required by Siemens for the A+ upgrade. Thus, the application would contain the necessary support elements for both operations, commissioning, and tuning activities.



Permitting Challenges

The existing REP project offset the emissions of oxides of nitrogen (NO_x) and particulate matter (PM₁₀), based on the non-attainment designation of the project air shed. Based on the lack of availability in the PCAPCD of existing NO_x offsets, NO_x certificates were transferred from Yolo Solano AQMD. Additionally, VOCs were used, as an inter-pollutant trade, to cover some of the NO_x requirements.

As offsets can be expensive and difficult to acquire, one of the permitting challenges is to avoid requiring the project to obtain additional credits. The goal of the project would be to envelope any emission increase under the existing permitted limits, thus not requiring additional offsets. This is an approach we have used extensively in the past, most recently with the Malburg Generating Station project where we avoided additional offsets by using bubbling in the short-term emissions increase into the monthly and annual limits.

Another issue that could be a challenge would be the air quality and public health impacts to the nearby residential neighborhoods. The Orchard Ranch Elementary School is within 1,000 meters of the REP site location. While natural gas power plants have relatively small impacts to air quality and public health, diesel particulate matter emissions from the emergency generator and fire pump could present an increased potential for impacts. While the original health risk impact demonstrated insignificant impacts, the residential areas have expanded closer to the project location. Many of the power plants we have worked on have the exact same situation where neighboring communities have encroached on the area surrounding the power plant site. Here, ADI's experience with the use of refined modeling and health risk assessment methods have always been able to demonstrate compliance with the established significance thresholds.

General Permitting Approach

Based on the Upgrade Package evaluation and data provided by Siemens, there will be the potential for an increase in the short-term (hourly) emissions of NO_x, carbon monoxide (CO), volatile organic compounds (VOCs) and sulfur dioxide (SO₂), primarily related to a small increase in the fuel use and firing temperatures. But based on the Siemens turbine performance data, there will be a slight decrease in the potential to emit of particulate matter (PM₁₀/PM_{2.5}). *However, with the proposed turbine upgrade, we would propose that the new permit application for REP not seek to modify the existing quarterly or annual emission limits for any of the criteria pollutants. Based on review of the actual vs. permitted MGS facility emissions, in all likelihood, REP could bubble or envelope in the hourly increase in emissions while retaining the existing permitted quarterly and annual limits for all applicable criteria pollutants with an adequate margin of safety.* This is the same approach we took with MGS and is often the approach we take in revising existing permits for power generation facilities where offsets, which can be difficult and expensive to obtain, were based on the facility maximum potential to emit.



As an example, the PM10 emissions were based on the relatively large emission factor at the time the facility was permitted. After reviewing the PM10 source test data for the existing REP project, we get the following information.

PM10 Test Data Summary							
		Test		System	Test	PM	
Site Name	Test Year	Method	GT Model	Rating MW	Load %	lbs/hr	Notes
Roseville Electric	2007 Unit 1	EPA 201A/202	Siemens SGT-800	43	>60%	1.93	no duct burners
	2007 Unit 2	EPA 201A/202	Siemens SGT-800	42	>60%	2.06	no duct burners
	2008 Unit 1	EPA 201A/202	Siemens SGT-800	62.6	>90%	1.08	w/duct burners
	2008 Unit 2	EPA 201A/202	Siemens SGT-800	69.3	>90%	1.1	w/duct burners
	2009 Unit 1	EPA 201A/202	Siemens SGT-800	78.1	>90%	0.95	w/duct burners
	2009 Unit 2	EPA 201A/202	Siemens SGT-800	76.9	>90%	0.89	w/duct burners
	2010 Unit 1	EPA 201A/202	Siemens SGT-800	77.5	>90%	1.15	w/duct burners
	2010 Unit 2	EPA 201A/202	Siemens SGT-800	79.1	>90%	0.31	w/duct burners
	2012 Unit 1	EPA 201A/202	Siemens SGT-800	81.8	>90%	1.01	w/duct burners
	2012 Unit 2	EPA 201A/202	Siemens SGT-800	80.8	>90%	1.1	w/duct burners
	2012 Unit 1	EPA 201A/202	Siemens SGT-800	75.1	>90%	1.08	w/duct burners
	2012 Unit 2	EPA 201A/202	Siemens SGT-800	74.4	>90%	0.87	w/duct burners
	2013 Unit 1	EPA 201A/202	Siemens SGT-800	77.3	>90%	0.54	w/duct burners
	2013 Unit 2	EPA 201A/202	Siemens SGT-800	71.9	>90%	0.7	w/duct burners
	2014 Unit 1	EPA 201A/202	Siemens SGT-800	75.2	>90%	1.04	w/duct burners
	2014 Unit 2	EPA 201A/202	Siemens SGT-800	74.5	>90%	0.64	w/duct burners
	2015 Unit 1	EPA 201A/202	Siemens SGT-800	77.2	>90%	0.87	w/duct burners
	2015 Unit 2	EPA 201A/202	Siemens SGT-800	76.2	>90%	1	w/duct burners
	2016 Unit 1	EPA 201A/202	Siemens SGT-800	75.1	>90%	1	w/duct burners
	2016 Unit 2	EPA 201A/202	Siemens SGT-800	73.7	>90%	1	w/duct burners
Average						1.02	

The average across these source test results demonstrate that the project is well below the hourly PM emission limit of 4.7 lb/hr per turbine/HRSG combination.

The ability to envelope the small increase in hourly emission rates while maintaining the existing limits could be achievable primarily due to the current permitted limits which are based on the maximum potential to emit (PTE) and which had incorporated some margin for developing the baseline emissions used in the existing permit and CEC license. The actual hourly, daily, quarterly emissions, based on past historical CEMs and source test data, should be less than the permitted potential to emit levels for all pollutants. Additionally, as the commission activities associated with the upgrade will occur over an approximate two to three-week period, the proposed project should still safely allow for full compliance with the existing quarterly and annual emission limits in the current operating permit.

Our Strengths



ADI ability to successfully permit power plants with the local air pollution control agencies and the CEC are typically a result of the following:

- Excellent reputation within many of the air pollution control agencies
- Excellent working reputation with the CEC
- Ability to utilize refined modeling methods for both air quality and public health impact assessment in order to demonstrate compliance
- Thorough and complete understanding the regulatory and CEQA environment
- Unique approaches to permitting with a proven success record



TAB E
Project Plan



Project Plan

Issue Identification

ADI will identify air quality permitting or CEQA related issues that could impact the development of the project. The issues to be reviewed include offset availability, potential air quality impact analyses, permitting timelines, and regulatory obstacles. A permit issue report will be created for review by REP.

Air Quality Scope of Work for the A+ Upgrade

ADI will prepare the new source review (NSR) permit application as well as the Air Quality section of the CEC amendment which will contain the following detailed discussions, analyses, and support appendices:

- Geography and topography
- Climate and meteorology
- State and federal air quality standards
- Attainment and non-attainment status determinations
- Background air quality determinations and historical air quality data
- Criteria pollutant health and welfare effects
- Detailed project emissions estimates for the construction phase
- Detailed project emissions estimates for the operational phase for criteria, hazardous air pollutants, and greenhouse gases i.e., including steady state operation, startup and shutdown modes, and commissioning activities.
- Presentation of proposed facility equipment, processes, and equipment specifications.
- Presentation of proposed fuels and fuel analysis data.
- Detailed analysis of best available control technology (BACT)
- Discussion of the air quality impact and modeling methodologies.
- Presentation of the screening and refined modeling results and impacts for steady state operations, startup and shutdown modes, and commissioning activities.
- Determinations of significance with respect to established PCAPCD and /or federal significance criteria.
- California Ambient Air Quality Standards (CAAQS)/National Ambient Air Quality Standards (NAAQS) analyses as needed for concentrations over the established significance levels.
- Secondary impacts to soils and vegetation.
- Mitigation analysis per the PCAPCD rules and CEC requirements.
- Discussion of applicable air quality laws, ordinances, regulations, and standards applicable to the facility.
- Permitting schedule outlining required permits, permit processing time frames, and potential submittal timeframes.



- The air quality section will be supplemented by all required maps, figures, data tables, and data files to meet the CEC data adequacy requirements.

The air quality application will be supplemented by all required maps, figures, data tables, and data files to meet the CEC and PCAPCD data adequacy/completeness requirements.

Public Health Scope of Work for the A+ Upgrade

ADI will prepare the Public Health section of the CEC amendment which will contain the following detailed discussions, analyses, and support appendices:

- Discussion of public health affected environment with respect to hazardous and/or air toxics emissions in the regional project area.
- Discussion of cancer and non-cancer risk criteria and established significance thresholds.
- Discussion of regional population and land use data.
- Discussion of the risk assessment process.
- Delineation of the types of hazardous or toxic pollutants expected to be emitted and the levels of such emissions.
- Identification and discussion of sensitive receptors in the project area.
- Discussion of the risk assessment model used in the analysis.
- Presentation of the operational risk assessment results and impacts, and a discussion of cumulative risks and mitigation measures.
- Discussion of applicable public health laws, ordinances, regulations, and standards applicable to the facility.
- Delineation of the various public health agencies with potential jurisdiction over the proposed project, agency roles, and pertinent contact information.
- Permitting schedule outlining required permits, permit processing time frames, and potential submittal timeframes.
- The public health section will be supplemented by all required maps, figures, data tables, and data files to meet the CEC submittal requirements.

ADI will supply a data needs list to you for review and completion.

PCAPCD NSR Permitting Application for the A+ Upgrade

ADI will prepare the air permitting application package as per the requirements of Regulation V, Rule 502 (New Source Review) for submittal to the PCAPCD. This document will consist of the repackaging of the following CEC amendment sections; (1) Project Description Section, (2) Air Quality Section, (3) Public Health Section, and (4) all associated maps, figures, tables, data files, and support appendices. Compliance with PCAPCD Rule 502, Sections 305.1 and 305.2 for air quality impacts will be assessed. Health risk will also be included. The application document will also contain a complete set of the PCAPCD permitting application forms for the modified facility equipment, including the Title V application forms.



Support of Additional Modeling and Regulatory Support Efforts for Roseville Electric Utility

ADI will provide Roseville Electric Utility with ongoing air quality regulatory support services in order to address existing and future permitting activities with the Placer County Air Pollution Control District and CEC. ADI proposes to conduct the following scope of work:

- Providing air quality consulting services on an as needed basis
- Review and preparation of emissions data
- Regulatory review
- Air quality and health risk modeling services
- Control technology evaluations
- Permit application and permit language review
- Meteorological data preparation.
- Support of compliance tests
- Assistance with PCAPCD and CEC compliance issues

Work Schedule

To prepare the CEC air quality and public health analyses, and the PCAPCD air permit application package, i.e., text, maps, figures, data tables, data files, and support appendices, the following work schedule is proposed:

- | | |
|---|--------------------------------------|
| • Preparation of Meteorological Data Base | 2 weeks from project initiation |
| • Emissions Calculations and BACT | 4 weeks from project initiation |
| • Regulatory review and LORS | 4 weeks from project initiation |
| • NSR/CEC Air Quality Modeling Analyses | 8 weeks from receipt of design data |
| • Construction Impact Assessment | 10 weeks from receipt of design data |
| • Public Health Section and Analyses | 9 weeks from receipt of design data |
| • PCAPCD Permit Application | 11 weeks from receipt of design data |
| • CEC Air Quality/Public Health Section | 12 weeks from receipt of design data |
| • Issue Identification | 2 weeks from project initiation |

Project Staff Based on Work Plan

- | <i>Work Task</i> | <i>ADI Staff</i> |
|---|-------------------------------|
| • Preparation of Meteorological Data Base | William Corbin |
| • Emissions Calculations and BACT | Gregory Darwin/Richard Booth |
| • Regulatory review and LORS | Gregory Darwin/Richard Booth |
| • NSR/CEC Air Quality Modeling Analyses | Gregory Darwin/William Corbin |
| • Construction Impact Assessment | Richard Booth/William Corbin |



Work Task

- Public Health Section and Analyses
- PCAPCD Permit Application
- CEC Air Quality/Public Health Section
- Issue Identification

ADI Staff

Gregory Darwin/Richard Booth

Gregory Darwin

Gregory Darwin/Richard Booth

Gregory Darwin



TAB G
Required Statements/Documents



- There will be no substitution of the designated members of the team, without the approval by City Staff.
- There is no conflict of interest with the City, City officials or its employees
- We satisfy the current indemnification and insurance requirements
- There is nothing contained in the submitted proposal by ADI that is considered proprietary
- Attachment A (Executed copy of Proposers Certification)



Attachment A
Executed Copy of Proposer's Certification



Attachment A

PROPOSER'S CERTIFICATION

I hereby propose to furnish the goods or services specified in the Request for Proposals ("RFP"). I agree that my proposal will remain firm for a period of up to ninety (90) days in order to allow the City of Roseville ("City") adequate time to evaluate the qualifications submitted.

I have carefully examined the Request for Proposals and any other documents accompanying or made a part of this RFP. The information contained in this proposal is true and correct to the best of my knowledge and is signed under penalty of perjury under the laws of the State of California. I further certify that I am duly authorized to submit this proposal on behalf of the firm as its authorized agent and that the firm is ready, willing and able to perform if awarded the contract.

I further certify that this proposal is made without prior understanding, agreement, connection, discussion, or conspiracy with any other person, firm or corporation submitting a proposal for the same product or service; that this proposal is fair and made without outside control, collusion, fraud or illegal action; that no officer, employee or agent of the City or any other proposer is financially interested in said proposal; that no undue influence or pressure was used against or in concert with any officer, employee or agent of the City in connection with the award or terms of the contract that will be executed as a result of this RFP; and that the undersigned executed this Proposer's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.

Atmospheric Dynamics, Inc.

NAME OF BUSINESS

SIGNATURE

Gregory Darvin, President

NAME & TITLE, TYPED OR PRINTED

PO Box 5907, Carmel by the Sea, CA 93921

MAILING ADDRESS

831 620-0481

TELEPHONE NUMBER

darvin@atmosphericdynamics.com

EMAIL

Type of Organization:

☐ Sole Proprietorship ☒ Corporation ☐ State of Incorporation
☐ Partnership ☐ Limited Liability Company

TAB H
Exceptions



- There are no proposed exceptions, alterations or amendments to the Scope of Services or other requirements of the RFP. There are no proposed changes to the Sample Contract (Attachment B). As there are no changes, the Sample Contract is not included with this proposal.



TAB I
Competency of Proposers



Based on the experience with similar project as provided in the previous Tabs, ADI has the competency, experience and financial resources to provide the services and complete the project. With the exception of projects that were canceled by the applicant for reasons completely unrelated to ADI's performance, ADI has always completed every permit application we have undertaken. We have no pending or past bankruptcies, liens, stop payment notices, judgments, lawsuits, arbitrations, mediations, foreclosures, or any similar actions filed or resolved in the past seven (7) years. We have never been terminated by a client for breach.



EXHIBIT “B”

TAB F
Project Cost
(Included in Marked Envelope)



REP A+ Upgrade Project Cost

All of the analyses will be billed on a time and materials basis and are based on our 2020 rate sheet (attached). The cost to prepare the CEC air quality and public health analyses, and the PCAPCD air permit application package, i.e., text, maps, figures, data tables, data files, and support appendices, up to the submittal date to the CEC and PCAPCD would be as follows:

• Project Kickoff and Weekly Meetings	\$ 6,000
• Preparation of Meteorological Data Base	\$ 3,400
• Emissions Calculations and BACT	\$ 9,200
• Regulatory review and LORS	\$ 5,000
• NSR/CEC Air Quality Modeling Analyses	\$29,000
• Construction Impact Assessment	\$ 1,500
• Public Health Section and Analyses	\$15,500
• PCAPCD Permit Application	\$ 7,400
• CEC Air Quality/Public Health Section and Analysis	\$ 8,000
• Issue Identification	\$ 3,500
Total:	\$88,500

For cost purposes, it is also assumed that no additional changes to the facility or permit conditions are required at this time. The PCAPCD, in order to prepare the Preliminary Determination of Compliance (PDOC) will require that the CEC amend the license to incorporate the new PCAPCD conditions and limits. Thus, a CEC license amendment will be needed to incorporate the A Plus efficiency project. The cost summarized below only represents the air quality and public health sections and costs for other technical areas, as needed, may need to be included in your budgetary estimate. A cumulative analysis may be required by the CEC and will prepared under a separate scope of services.

Costs incurred after submittal of the CEC amendment and NSR applications will be charged on a time and materials basis and for budgetary estimates, are presented below. The above costs do not include any permitting application fees, review fees, or processing fees levied by any agency. The above costs do not include any fees or costs associated with purchasing emissions mitigations pursuant to PCAPCD rules or CEC requirements.

• Post Application Support to FDOC	\$30,000
• Support to final amended license	\$45,000
Total:	\$75,000

Additionally, for the dispersion modeling, a meteorological database will need to be identified and processed for use in the modeling studies. The scope also assumes that no preconstruction monitoring will be required and that all NAAQS, CAAQS and health risk impacts will be in compliance with the applicable limits. Separate scopes for refined



modeling may need to be developed if the project or cumulative impacts exceeds the established limits.

Roseville Electric Utility Generation Division Cost

To support as needed air quality services related to but not limited to the list below, ADI proposes a time and material budget of **\$20,000** which will be billed in accordance with the attached 2020 rate sheet.

- Providing air quality consulting services on an as needed basis
- Review and preparation of emissions data
- Regulatory review
- Air quality and health risk modeling services
- Control technology evaluations
- Permit application and permit language review
- Meteorological data preparation.
- Support of compliance tests
- Assistance with PCAPCD compliance issues

Reimbursable Expenses

Travel Costs such as lodging and airline tickets

Automobile mileage per IRS limits

