

SJVUAPCD Mitigation Agreement and Voluntary Emission Reduction Agreement

Amended Application for Certification
for
HYDROGEN ENERGY CALIFORNIA
(08-AFC-8A)
Kern County, California

April 2013

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1 Conformity); and

2 **WHEREAS**, Developer has prepared, and District staff has reviewed and
3 concurred in, a General Conformity Evaluation for the Project, including air quality
4 impact modeling for assessing indirect air quality emission impacts associated with
5 construction and operation of the Project; and

6 **WHEREAS**, the General Conformity Evaluation demonstrates indirect emissions
7 are expected to exceed the following Conformity Thresholds in the San Joaquin Valley
8 Air Basin: 10 tons/year NOx, and 10 tons/year ROG/VOC; and

9 **WHEREAS**, District has determined that Developer's payment of fees into
10 District's Emission Reduction Incentive Program (ERIP) will provide pound-for-pound
11 offsets of Project indirect emissions that exceed the General Conformity thresholds and
12 result in DOE's federal action conforming to the applicable state implementation plan
13 (SIP), all as set forth in the General Conformity Evaluation for the Project; and

14 **WHEREAS**, the emission offsets that will be provided pursuant to this
15 Agreement for purposes of satisfying the General Conformity requirements are distinct
16 from and in addition to any new source review emission offsets that Developer is
17 required to provide pursuant to District Rule 2201; and

18 **WHEREAS**, the Project is subject to review pursuant to the California
19 Environmental Quality Act ("CEQA") codified at California Public Resources Code
20 Section 21000, et seq.; and

21 **WHEREAS**, pursuant to its certified regulatory program, the CEC acts as CEQA
22 lead agency for the Project and the District is a CEQA responsible agency for the
23 Project; and

24 **WHEREAS**, District has determined, in its role as a CEQA responsible agency,
25 that Project indirect emissions are expected to exceed the District CEQA Significance
26 Thresholds of 10 tons/year NOx, 10 tons/year ROG/VOC and 15 tons/year PM10 and
27 that additional mitigation measures beyond those proposed by Developer are
28 necessary to mitigate Project indirect emissions below a level of significance; and

WHEREAS, District has determined that Developer's payment of fees into District's Emission Reduction Incentive Program (ERIP) will further mitigate Project indirect emissions that exceed the District CEQA Significance Thresholds and result in Project indirect emissions being mitigated below the level of significance; and

WHEREAS, District has determined that with appropriate funding, District can provide additional reductions of emissions from certain projects in types and in sufficient quantities which, when combined with other measures proposed by Developer, will offset and mitigate Project criteria pollutant emissions for construction and operation , such that the Project will not result in significant impacts to air quality and the DOE action with respect to the Project will conform to the applicable SIP; and

WHEREAS, Developer and District desire to enter into this Agreement in order to develop and implement air quality control measures which, when combined with other measures proposed by Developer, will offset and mitigate the emissions for the Project, so that the development of such Project will not result in an increase in criteria pollutant emissions over those which would otherwise exist without the development thereof; and

WHEREAS, District has determined that compliance with the terms of this Agreement will ensure that the Project will have no significant adverse impacts to air quality, and that DOE's action with respect to the Project will conform to the applicable SIP as more fully set forth in the General Conformity Evaluation prepared for the Project.

AGREEMENT

NOW, THEREFORE, in exchange of the mutual covenants herein contained,
Developer and District hereby agree as follows:

1. Offsetting and Mitigation of Project Related Impacts on Air Quality

Project related indirect emissions from construction and operation that exceed applicable CEQA and General Conformity thresholds shall be offset and mitigated by achieving real, surplus, quantifiable and enforceable reductions of ROG/VOC, NOx,

1 and PM₁₀ through implementation of Emission Reduction Measures in accordance with
2 this Agreement. The determination of whether proposed emission reductions are real,
3 surplus, quantifiable and enforceable shall be performed by the District through its
4 Strategy and Incentives Department. Estimated Project related indirect source
5 emissions that exceed applicable CEQA and General Conformity thresholds are set
6 forth in Exhibit C, which is attached hereto and incorporated herein, and shall be offset
7 and mitigated as demonstrated in Exhibit C. For construction emission impacts, indirect
8 emissions of any criteria pollutant exceeding the applicable General Conformity
9 Threshold or District CEQA Significance Threshold in any given year will be fully offset
10 and mitigated for that pollutant for the entire project construction period. For
11 operational emission impacts, indirect emissions of any criteria pollutant exceeding the
12 applicable General Conformity Threshold or District CEQA Significance Threshold will
13 be fully offset and mitigated for that pollutant, as specified in Exhibit C.

14 2. Payment of Air Quality Mitigation Fees

15 No later than five months prior to breaking ground for construction of the Project,
16 Developer shall pay Air Quality Mitigation Fees to District in the amount of three million
17 three hundred twenty seven thousand three hundred thirty four dollars (\$3,327,334) for
18 implementation of Emission Reduction Measures to offset and mitigate Project
19 construction emissions as specified in Exhibit C. The amount specified above includes
20 a 4% administration fee to cover the District's costs of administering this Agreement.

21 No later than six months prior to the commercial operation date (COD) for the
22 Project, Developer shall pay additional Air Quality Mitigation Fees to the District in the
23 amount of four million two hundred thirty eight thousand six hundred ninety two dollars
24 (\$4,238,692) for implementation of Emission Reduction Measures to offset and mitigate
25 Project indirect operational emissions as specified in Exhibit C. The amount specified
26 above includes a 4% administration fee to cover the District's costs of administering
27 this Agreement.

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1 **3. Implementation of Emission Reduction Measures**

2 Upon Developer's submission to District of the Air Quality Mitigation Fees
3 specified in paragraph 2 above, District shall (1) use diligent efforts to enter into
4 Funding Agreements with owners and/or operators of pollution source equipment to
5 implement the Emission Reduction Proposals within 150 days (in the case of Emission
6 Reduction Measures to offset and mitigate construction emissions) and 180 days (in
7 the case of Emission Reduction Measures to offset and mitigate indirect operational
8 emissions); (2) determine the types and quantities of permanent reduction in emissions
9 which would be realized by the Emission Reduction Measures; (3) perform the
10 determination of surplus emission reductions of ROG/VOC, NOx, and PM10; and (4)
11 advise Developer of such determinations in writing.

12 District shall notify Developer or designee in writing of Funding Agreements
13 entered into by the District. In the event District is unable to achieve the required
14 reductions District shall provide Developer a written statement of the amount of
15 reductions that have been achieved. Developer shall have a reasonable time, not to
16 exceed ninety (90) days, within which to submit to District additional Emission
17 Reduction Proposal(s) or provide District additional Air Quality Mitigation Fees.

18 **4. Refunds**

19 Upon verification by District that Project indirect emissions have been fully offset
20 and mitigated in accordance with this Agreement, District shall refund Developer any
21 unused Air Quality Mitigation Fees. District shall have reasonable time, not to exceed
22 sixty (60) days, to refund Developer.

23 **5. CEQA & General Conformity Compliance**

24 District hereby confirms that with implementation of this Agreement: i) Project
25 construction emissions of any criteria pollutant exceeding the General Conformity
26 Threshold or District CEQA Significance Threshold in any given year will be fully offset
27 and mitigated for that pollutant for the entire project construction period; and ii) Project
28 indirect operational emissions of any criteria pollutant exceeding the General

1 Conformity Threshold or District CEQA Significance Threshold will be fully offset and
2 mitigated for that pollutant.

3 **6. District's Obligations**

4 **6.1 Acknowledgement Regarding Full Offset and Mitigation**

5 Upon successful implementation of the Emission Reduction Measures pursuant
6 to Paragraph 3, District shall verify in writing to Developer, the CEC and the DOE that
7 the Project related impacts on air quality have been fully offset and mitigated as set
8 forth in Paragraph 5. For the purpose of this Agreement, fully offset and mitigated
9 means that the reductions specified in Exhibit C have been achieved.

10 **6.2 Oversight of Funding Agreements**

11 District shall ensure that the owners/operators of equipment subject to Funding
12 Agreements perform all obligations to be performed on the part of such parties under
13 said Funding Agreements.

14 **6.3 Oversight of Air Quality Mitigation Monitoring Plan**

15 Upon request of the CEC, District shall oversee that portion of the mitigation
16 monitoring plan adopted by CEC which relates to the mitigation brought about by this
17 Agreement. Alternatively, upon request of the CEC, District shall cooperate with the
18 CEC in the oversight of that portion of the mitigation monitoring plan adopted by the
19 CEC for the Project which relates to the mitigation brought about by this Agreement.

20 **6.4 Documentation, Record Keeping and Monitoring**

21 District shall document, keep adequate records on and monitor the emission
22 reductions brought about as a result of this Agreement, and shall, upon written request
23 by Developer, the CEC or the DOE, provide Developer, the CEC or the DOE written
24 reports verifying achieved emission reductions and/or emission reductions being
25 brought about to fully offset and mitigate Project related impacts on air quality.

26 **6.5 Achievement of Emission Reductions**

27 For and in exchange of Developer's payment of funds pursuant to Paragraph 2
28 above, District shall ensure, by way of entering into, funding and enforcing the Funding

1 Agreements in accordance with the provisions of this Agreement, that the Project
2 achieves the required emission reductions to the extent specified in this Agreement.
3 District shall ensure that implementation of Emission Reduction Measures to offset
4 Project indirect operational emissions as specified in Exhibit C shall result in emission
5 reductions in a timeframe complying with the general conformity mitigation
6 requirements of 40 CFR 93.163.

7 **7. Subsequent Litigation, Legislation and/or Administrative Action /**
8 **Credit to Developer**

9 In the event that despite this Agreement, Developer is required as a result of a
10 final judgment or District Approved Settlement (as defined below) in any subsequent
11 third party litigation, to pay monies in addition to the monies to be paid by Developer
12 pursuant to Paragraph 2 above, then District shall acknowledge and credit Developer
13 with the emission reductions achieved pursuant to this Agreement and any additional
14 emission reductions achieved to mitigate the Project related impacts on air quality that
15 will result from Developer's payment of such additional monies. To the extent that
16 monies paid by Developer pursuant to Paragraph 2 above, when combined with
17 monies paid pursuant to a District Approved Settlement, result in emission reductions
18 in excess of those required to fully offset and mitigate Project related emissions as
19 required by this Agreement, District shall refund to Developer any remaining Air Quality
20 Mitigation Fees in excess of those required to achieve the emission reductions
21 contemplated by this Agreement. For purposes of this Paragraph, a "District Approved
22 Settlement" shall mean a settlement of a lawsuit filed pursuant to CEQA, the National
23 Environmental Protection Act or other applicable environmental law which (i) provides
24 for Developer's payment of monies in exchange for a dismissal or settlement of such
25 lawsuit, (ii) provides for the use of such monies by the petitioner in such lawsuit in such
26 a manner as to mitigate adverse air quality impacts of the Project, and (iii) is approved
27 in writing by District.

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1 **8. Term of Agreement**

2 This Agreement shall be effective upon the date first written above, and shall
3 terminate upon District's meeting its obligation to implement Emission Reduction
4 Measures that provide necessary emissions reductions to fully offset and mitigate the
5 indirect Project related air impacts, including any associated monitoring, recordkeeping
6 and reporting. Developer may, at any time by written notice to District, terminate this
7 Agreement, whereupon, (i) District shall acknowledge in writing to the CEC and DOE
8 that Developer has offset and mitigated indirect air quality impacts of the Project to the
9 extent and in the types and quantities brought about by Funding Agreements and
10 Emission Reduction Measures implemented as of the date of termination, (ii) District
11 shall refund to Developer any unused portion of Developer's Air Quality Mitigation
12 Fees less any unpaid administrative fees incurred; and (iii) neither Developer nor
13 District shall have any further rights or obligations under this Agreement except as
14 expressly provided. District's obligations to oversee implementation of Funding
15 Agreements pursuant to Paragraph 9 and to ensure that required emission reductions
16 are achieved, pursuant to Paragraph 9, shall remain effective for as long as necessary
17 to ensure that the anticipated emission reductions continue to be achieved to the extent
18 specified in this Agreement.

19 **9. Representations, Covenants and Warranties**

20 **9.1. Developer's Representations, Covenants and Warranties.**

21 Developer represents, covenants and warrants to District, as of the date of this
22 Agreement, as follows:

23 9.1.1. The undersigned representatives of Developer are duly authorized to
24 execute, deliver and perform this Agreement, and upon Developer's execution and
25 delivery of this Agreement, this Agreement will have been duly authorized by
26 Developer.

27 9.1.2. Upon execution and delivery of this Agreement by Developer,
28 Developer's obligations under this Agreement shall be legal, valid and binding

1 obligations of Developer, duly enforceable at law and in equity in accordance with the
2 terms and conditions of this Agreement.

3 9.1.3. There is no lawsuit, legal action, arbitration, legal or administrative
4 proceeding, legislative or quasi-legislative action or claim existing, pending, threatened
5 or anticipated which would render all or any portion of this Agreement invalid, void or
6 unenforceable in accordance with the terms and conditions thereof.

7 9.1.4. Other than the execution and delivery of this Agreement by the
8 undersigned representatives of Developer, there are no approvals, consents,
9 confirmations, proceedings, or other actions required by Developer or any third party,
10 entity or agency in order to enter into and carry out the terms, conditions and intent of
11 the parties with respect to this Agreement.

12 **9.2. District's Representations, Covenants and Warranties**

13 District represents, covenants and warrants to Developer, as of the date of this
14 Agreement, as follows:

15 9.2.1. The undersigned representatives of District are duly authorized to
16 execute, deliver and perform this Agreement, and upon District's execution and
17 delivery of this Agreement, this Agreement will have been duly authorized by District.

18 9.2.2. Upon execution and delivery of this Agreement by District, District's
19 obligations under this Agreement shall be legal, valid and binding obligations of District,
20 duly enforceable at law and in equity in accordance with the terms and conditions of
21 this Agreement.

22 9.2.3. There is no lawsuit, legal action, arbitration, legal or administrative
23 proceeding, legislative, quasi-legislative or administrative action or claim existing,
24 pending, threatened or anticipated which would render all or any portion of this
25 Agreement invalid, void or unenforceable in accordance with the terms and conditions
26 thereof.

27 9.2.4. Other than the execution and delivery of this Agreement by the
28 undersigned representatives of District, there are no approvals, consents,

1 confirmations, proceedings, or other actions required by District or any third party,
2 entity or agency in order to enter into and carry out the terms, conditions and intent of
3 the parties with respect to this Agreement.

4 9.2.5. The monies paid by Developer under this Agreement shall be sufficient to
5 ensure that the emission reduction contemplated by this Agreement shall occur, and
6 District shall utilize such monies in such a manner as to ensure that such emission
7 reduction shall occur.

8 9.2.6. Upon the approval of this Agreement by the governing board of District,
9 the Air Pollution Control Officer of District, or equivalent representative, or a delegee of
10 such officer, shall have the authority to approve, deliver, verify, enter into, acknowledge
11 and/or accept any communication, notice, notification, verification, agreement and/or
12 other document to be issued or entered into by District under the terms and conditions
13 of this Agreement, without further approval of the governing board of District.

14 **10. Indemnification**

15 Developer agrees to indemnify, defend and hold harmless District for, from and
16 in connection with any third party claims, losses and/or liabilities arising from or in
17 connection with District's performance of this Agreement, excluding only such claims,
18 losses and/or liabilities which result from or in connection with District's sole
19 negligence, act or omission.

20 **11. Inurement**

21 Developer's rights and obligations under this Agreement, or applicable portions
22 thereof, shall inure to the benefit of and be binding upon the heirs, successors and
23 assigns of Developer. Upon Developer's conveyance of all or any portion of the
24 Project, the rights and obligations of Developer under this Agreement shall, to the
25 extent applicable, be transferred to the transferee thereof, and Developer shall
26 thereupon be released by District from, all obligations and liabilities so assigned,
27 except for such obligations and liabilities arising prior to such transfer.

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1 **12. Assignment**

2 Developer shall have the right to assign all or any part of its rights and/or
3 obligations under this Agreement. Upon any such assignment, Developer shall deliver
4 to District a written assignment and assumption agreement specifying the fact and
5 extent of the assignment, the name and address of the assignee, and the assignee's
6 assumption of all obligations of Developer thereby assigned. Developer shall have the
7 right to assign all or any part of its rights and/or obligations under this Agreement to a
8 third party for use in connection with the mitigation of air quality impacts resulting from
9 one or more projects other than the Project, so long as (i) the project is located within
10 the District Boundaries, (ii) the air quality impacts of such project(s) will in fact be
11 mitigated, as verified by District, by the emission reductions brought about by this
12 Agreement, and (iii) the project(s) consist of residential, commercial, industrial and/or
13 mixed use real estate projects. Upon any such assignment by Developer, District shall
14 enter into an amendment of this Agreement which acknowledges the assignment and
15 conforms the various provisions of this Agreement as may be required to be conformed
16 in order to provide to the assignee the rights and benefits of this Agreement as if such
17 assignee and its project were the original party and project contemplated in this
18 Agreement.

19 **13. Recitals Incorporated**

20 The recitals set forth hereinabove are hereby incorporated into this Agreement
21 and acknowledged, agreed to and adopted by the parties to this Agreement.

22 **14. Further Assurances**

23 Developer and District agree to execute and deliver any documents and/or
24 perform any acts which are reasonably necessary in order to carry out the intent of the
25 parties with respect to this Agreement.

26 **15. No Joint Venture or Partnership**

27 District and Developer agree that nothing contained in this Agreement or in any
28 document executed in connection with this Agreement shall be construed as making

District and Developer joint venturers or partners.

16. Notices

Any notices or communications relating to this Agreement shall be given in writing and shall be deemed sufficiently given and served for all purposes when delivered, if (a) in person, (b) by facsimile (with the original delivered by other means set forth in this paragraph, (c) by generally recognized overnight courier or (d) by United States Mail, certified or registered mail, return receipt requested, postage prepaid, to the respective addresses set forth below, or to such other addresses as the parties may designate from time to time by providing written notice of the change to the other party.

DEVELOPER

Hydrogen Energy California, LLC
30 Monument Square, Suite 235
Concord, MA 01742
Fax: (978)287-9529
Attn: Marisa Mascaro

DISTRICT

Seyed Sadredin
Executive Director/APCO
1990 E. Gettysburg Avenue
Fresno, CA 93726
(559) 230-6000
Fax: (559) 230-6061

17. Entire Agreement

The terms of this Agreement, together with all attached exhibits, are intended by the parties as the complete and final expression of their agreement with respect to such terms and exhibits and may not be contradicted by evidence of any prior or contemporaneous agreement. This Agreement specifically supersedes any prior written or oral agreements between the parties with respect to the subject matter of this Agreement.

18. Amendments and Waivers

No addition to or modification of this Agreement shall be effective unless set forth in writing and signed by the party against whom the addition or modification is sought to be enforced. The party benefited by any condition or obligation may waive the same, but such waiver shall not be enforceable by another party unless made in

1 writing and signed by the waiving party.

2 **19. Invalidity of Provisions**

3 If any provision of this Agreement as applied to either party or to any
4 circumstance shall be adjudged by a court of competent jurisdiction to be void or
5 unenforceable for any reason, the same shall in no way affect (to the maximum extent
6 permissible by law) any other provision of this Agreement, the application of any such
7 provision under circumstances different from those adjudicated by the court, or the
8 validity or enforceability of this Agreement as a whole. The parties further agree to
9 replace any such invalid, illegal or unenforceable portion with a valid and enforceable
10 provision, which will achieve, to the maximum extent legally possible, the economic,
11 business or other purposes of the invalid, illegal or unenforceable portion.

12 **20. Construction**

13 Unless otherwise indicated, all paragraph references are to the paragraph of this
14 Agreement and all references to days are to calendar days. Whenever, under the
15 terms of this Agreement the time for performance of a covenant or condition falls upon
16 a Saturday, Sunday or California state holiday, the time for performance shall be
17 extended to the next business day. The headings used in this Agreement are provided
18 for convenience only and this Agreement shall be interpreted without reference to any
19 headings. Wherever required by the context, the singular shall include the plural and
20 vice versa, and the masculine gender shall include the feminine or neuter genders, or
21 vice versa. This Agreement may be executed in one or more counterparts, each of
22 which shall be deemed an original, but all of which together shall constitute one and the
23 same instrument. The language in all parts of this Agreement shall be construed as a
24 whole in accordance with its fair meaning, and shall not be construed against any party
25 solely by virtue of the fact that such party or its counsel was primarily responsible for its
26 preparation.

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1 **21. Governing Law**

2 This Agreement shall be governed by the laws of the State of California
3 applicable to contracts made and to be performed in California.

4 **22. No Third-party Beneficiaries**

5 Nothing in this Agreement, express or implied, is intended to confer any rights or
6 remedies under or by reason of this Agreement on any person other than the parties to
7 it and their respective permitted successors and assigns, nor is anything in this
8 Agreement intended to relieve or discharge any obligation of any third person to any
9 party hereto or give any third person any right of subrogation or action over or against
10 any party to this Agreement.

11 **23. Exhibits**

12 The exhibits attached to this Agreement shall be deemed to be a part of this
13 Agreement and are fully incorporated herein by reference.

14 **24. Force Majeure**

15 The time within which any party shall be required to perform under this
16 Agreement shall be extended on a day-per-day basis for each day during which such
17 performance is prevented or delayed by reason of events reasonably outside of the
18 control of the performing party, including, without limitation, acts of God, events of
19 destruction, acts of war, civil insurrection, strikes, shortages, governmental delays,
20 moratoria, civil litigation and the like, and/or delays caused by the non-performing
21 party's act or omission.

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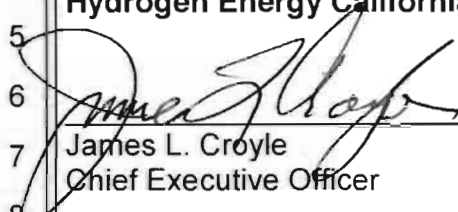
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1 IN WITNESS WHEREOF, Developer and District have executed this Agreement
2 and agree that it shall be effective as of the date first written above.

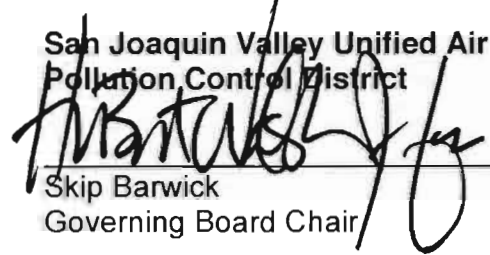
3 **DEVELOPER**

4 **Hydrogen Energy California LLC**

5 
6
7 James L. Croyle
8 Chief Executive Officer

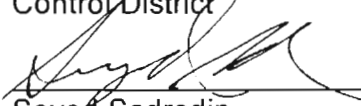
DISTRICT

**San Joaquin Valley Unified Air
Pollution Control District**


Skip Barwick
Governing Board Chair

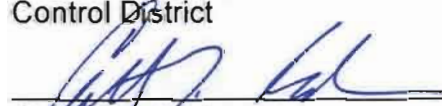
Recommended for approval:

San Joaquin Valley Unified Air Pollution
Control District


Seyed Sadredin
Executive Director/APCO

Approved as to legal form:

San Joaquin Valley Unified Air Pollution
Control District


Catherine Redmond
District Counsel

Approved as to accounting form:


Cindi Hamm
Director of Administrative Services

For accounting use only:

San Joaquin Valley Unified Air Pollution
Control District

Program: _____
Account No: _____

EXHIBIT A

DESCRIPTION OF THE PROJECT

The HECA IGCC polygeneration project is located near the community of Tupman, as shown in Figure 1. The Project will gasify a fuel blend of 75 percent coal and 25 percent petroleum coke (petcoke) to produce synthesis gas (syngas). Syngas produced via gasification will be purified to hydrogen-rich fuel, and used to generate a nominal 300 megawatts (MW) of low-carbon baseload electricity in a Combined Cycle Power Block, low-carbon nitrogen-based fertilizer in an integrated Manufacturing Complex, and carbon dioxide (CO₂) for use in enhanced oil recovery (EOR). The HECA Project Site comprises a 453-acre parcel of land on which the HECA IGCC electrical generation facility, low-carbon nitrogen-based fertilizer Manufacturing Complex, and associated equipment and processes (excluding off-site portions of linear facilities), will be located. HECA has an agreement to purchase the HECA Project Site, as well as an additional 653 acres adjacent to the HECA Project Site, herein referred to as the Controlled Area. HECA will have control over public access and future land use on this property. In addition, the HECA Project will include the following linear facilities, which extend off the Project Site.

- Electrical transmission line. An approximately 2-mile-long electrical transmission line will interconnect the Project to a future Pacific Gas and Electric Company (PG&E) switching station east of the Project Site.
- Natural gas supply pipeline. An approximately 13-mile-long natural gas interconnection will be made with PG&E natural gas pipelines north of the Project Site.
- Water supply pipelines and wells. An approximately 15-mile-long process water supply line and up to five new groundwater wells will be installed by the Buena Vista Water Storage District (BVWSD) to supply brackish groundwater from northwest of the Project Site. An approximately 1-mile-long water supply linear from the West Kern Water District (WKWD) east of the Project Site will provide potable water.

EXHIBIT B

DISTRICT BOUNDARIES

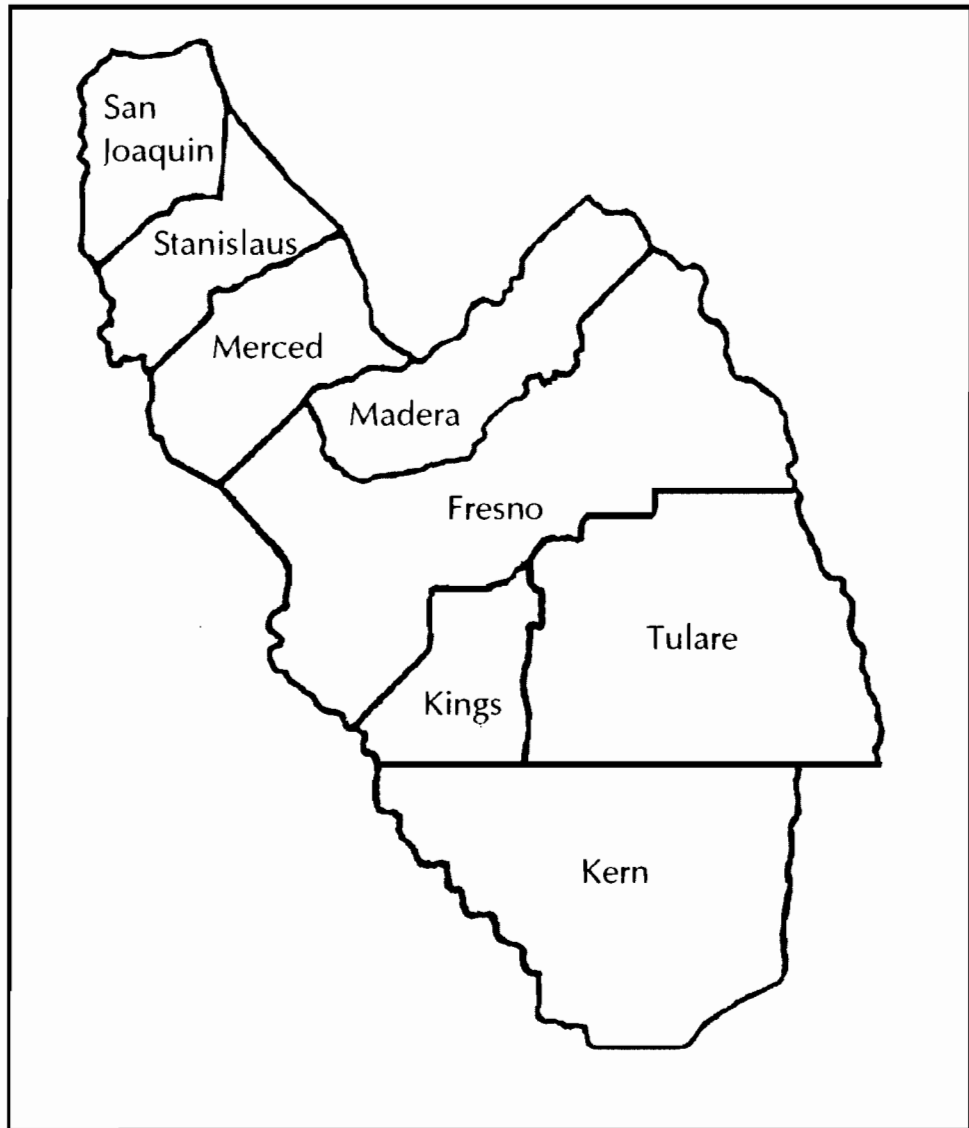


EXHIBIT C

PROJECT EMISSION MITIGATION FEES

HECA	ALT 1 - TRAIN			ALT 2 - TRUCKS		
	NOx	PM ₁₀	VOC	NOx	PM ₁₀	VOC
2013 Construction	50.1	25.9	5.5	50.1	25.9	5.5
2014 Construction	69.0	15.4	11.9	69.0	15.4	11.9
2015 Construction	68.6	10.5	12.4	68.6	10.5	12.4
2016 Construction	45.8	8.1	8.4	45.8	8.1	8.4
2017 Construction	10.1	1.4	1.3	10.1	1.4	1.3
2017 Operation	13.3	1.4	0.6	14.5	2.9	1.1
2018 Operation and beyond	39.9	4.2	1.9	43.6	8.6	3.2
District CEQA Thresholds	10	100	10	10	100	10
Conformity Threshold	10	15	10	10	15	10

Notes: This agreement provides mitigation for all shaded values:

- ~ The highest emitting alternative scenario for operations and construction is the alternative in which all deliveries and shipments are made by truck (ALT 2)
- ~ All construction emissions (NOx, PM₁₀ and VOC) are mitigated
- ~ All operational indirect source NOx emissions are mitigated at the maximum single year value of 43.6 tons per year. Operational PM₁₀ and VOC emissions do not exceed the District's significance thresholds.

	Per Year
NOx and VOC \$/ton (ISR)	\$ 9,350
PM10 \$/ton (ISR)	\$ 9,011

Mitigation

Construction: 344.4 tons, total (NOx+VOC+PM10)
\$ 3,327,334

Operation: 43.6 tons/yr (NOx), max year
\$ 4,238,692

Total Mitigation Amount: \$ 7,566,025 Includes a 4% administration fee

San Joaquin Valley Unified Air Pollution Control District
Meeting of the Governing Board
April 18, 2013

**APPROVE TWO MITIGATION AGREEMENTS WITH HYDROGEN ENERGY
CALIFORNIA, LLC. TO RECEIVE FUNDS IN THE AMOUNT OF
APPROXIMATELY \$8,747,160 FOR THE PURPOSE OF MITIGATING AIR
QUALITY IMPACTS OF A PROPOSED NEW POWER GENERATION
FACILITY IN KERN COUNTY**

Attachment B:

VOLUNTARY EMISSION REDUCTION AGREEMENT
(7 PAGES)

HYDROGEN ENERGY CALIFORNIA POWER PLANT PROJECT
VOLUNTARY EMISSION REDUCTION AGREEMENT 20130026

This Voluntary Emission Reduction Agreement ("Agreement") is entered into this 18th day of April, 2013 by and between Hydrogen Energy California LLC, a Delaware limited liability company ("HECA"), and the San Joaquin Valley Air Pollution Control District (the "District"). HECA and the District may be referred to individually as a "Party" or collectively as the "Parties."

RECITALS

WHEREAS, on May 3, 2012, HECA filed an Amended Application for Certification ("Amended AFC") with the California Energy Commission ("CEC") for the Hydrogen Energy California Power Plant, a nominal 405 megawatt facility that will produce a nominal 300 net megawatts of base-load, low-carbon electricity by gasifying coal and/or petroleum coke to produce hydrogen for electric generation in an integrated gasification combined cycle plant, capturing carbon dioxide to be delivered via pipeline for use in enhanced oil recovery and resulting sequestration in the oil fields located in Kern County, California, and producing low-carbon fertilizer in an Integrated Manufacturing Complex (the "Project"); and

WHEREAS, HECA is seeking approval from the CEC to construct and operate the Project; and

WHEREAS, on June 4, 2012, HECA filed a revised Application for Authority to Construct ("ATC") with the District for the Project; and

WHEREAS, HECA and the CEC are seeking a Final Determination of Compliance ("FDOC") for the Project from the District; and

WHEREAS, the Project site will occupy a portion of a 453 acre site that is located approximately 7 miles west of the outermost edge of the City of Bakersfield and approximately 2 miles northwest of the unincorporated community of Tupman in Western Kern County; and

WHEREAS, the District has determined that the Project, as proposed, complies with all applicable requirements for its stationary source emissions, including all requirements related to emission offsets and best available control technology ("BACT"); and

WHEREAS, notwithstanding that the Project complies with all applicable requirements for its stationary source emissions, the District desires that HECA further mitigate its stationary source NOx emissions to a level equivalent to that achieved by a natural gas power plant supplying the same amount of electricity to the grid; and

WHEREAS, HECA desires to cooperate with the District by entering into this Agreement to provide additional air quality benefits, despite being under no legal obligation to do so; and

WHEREAS, the District and HECA have determined that payment of a voluntary emission reduction fee to be used for air quality benefit programs, to the extent feasible, within

Kern County, or within the San Joaquin Valley with quantifiable direct or indirect benefits to the air quality of Kern County, is the appropriate method for HECA to ensure additional air quality benefits within the District.

NOW THEREFORE, for good and valuable consideration, including the mutual covenants set forth herein, HECA and the District hereby agree as follows:

1. Recitals. All recitals above are incorporated herein by this reference.
2. Voluntary Emission Reduction Fee. Subject to the conditions precedent set forth in Section 3 below, HECA agrees to contribute to the District the total sum of One Million One Hundred Eighty One Thousand One Hundred Thirty Five Dollars (\$1,181,135), which includes a five percent (5%) administration fee, to ensure additional air quality localized benefits within the District, and, in particular, direct or indirect benefits in Kern County (the "Voluntary Emission Reduction Fee"). An outline of the methodology used to determine the amount of the Voluntary Emission Reduction Fee and the calculation of the Voluntary Emission Reduction Fee are attached hereto as Exhibit A, incorporated herein by this reference. HECA agrees to pay the Voluntary Emission Reduction Fee to the District no later than six months prior to the commercial operation date ("COD") for the Project.
3. Conditions Precedent. The Parties acknowledge and agree that HECA's obligation to pay the Voluntary Emission Reduction Fee shall be subject to the fulfillment or waiver (such waiver to be in HECA's sole discretion) of both of the following conditions precedent:
 - (a) Issuance of the final CEC certification for the Project; and
 - (b) Physical delivery of the combustion turbine generator to the Project site.

Notwithstanding the above, if the Amended AFC with the CEC has been cancelled, withdrawn or denied, or if the Project is certified but not constructed during the term of the CEC's certification, then this Agreement shall automatically terminate, and neither Party shall have any further obligations hereunder.

4. Use of Voluntary Emission Reduction Fee. The District agrees to set up a specific account into which the Voluntary Emission Reduction Fee will be deposited. The District agrees to use the Voluntary Emission Reduction Fee exclusively to establish specific programs that create air quality benefits within the District. The District, in consultation with HECA, will identify the most effective and appropriate programs in which to invest the Voluntary Emission Reduction Fee. In particular, the District will work to establish that:

- programs selected to receive funding will focus on replacing agricultural equipment, including old tractors and old haul trucks operating, to the extent possible, within Kern County, or within nearby communities in the San Joaquin Valley with quantifiable direct or indirect benefits to the air quality of Kern County,

- assurance is provided that the equipment replaced through the use of funds is in regular use and not already idled,
- opportunities to participate in programs are provided to smaller users that regularly use high emitting equipment,
- programs selected to receive funding will benefit, to the extent possible, Kern County to ensure emissions reductions occur locally, and
- programs selected to receive funding will also, in general, reduce other criteria pollutants and greenhouse gases (GHGs) at the same time as reducing NOx emissions.

The District agrees to share with HECA the data regarding the actual NOx (and GHGs and other criteria pollutants to the extent data is readily available) emission reduction volumes achieved through the Voluntary Emission Reduction Fee funded programs.

The District agrees not to place the Voluntary Emission Reduction Fee into any operating account, or to use the Voluntary Emission Reduction Fee for any purpose other than those designated in this Agreement.

5. Cooperation. The Parties agree to cooperate with each other with respect to any requests or actions related to this Agreement from the CEC, the U.S. Environmental Protection Agency, or the California Air Resources Board, and to do or cause all things reasonably necessary, proper or advisable to help consummate and make effective the transaction contemplated by this Agreement.

6. Governing Law. This Agreement shall be governed by, construed under and enforced in accordance with the laws of the State of California.

7. Authority. Each Party acknowledges and agrees that it has the full right, power and authority to execute this Agreement, and to perform its obligations hereunder.

8. Relationship of the Parties. Nothing herein is intended to create or is to be construed as creating a joint venture, partnership, agency or other taxable entity between the Parties. The rights and obligations of the Parties shall be independent of one another and shall be limited to those expressly set forth herein and, except as expressly provided to the contrary, shall not be construed to apply to any affiliate of the Parties.

9. No Third Party Beneficiary. The Parties mutually agree that this Agreement is for their sole benefit and is not intended by them to be, in part or in whole, for the benefit of any third party.

10. Notices. All notices necessary to be given under the terms of this Agreement, except as herein otherwise provided, shall be in writing and shall be communicated by prepaid mail, telegram or facsimile transmission addressed to the respective Parties at the address below or to such other address as respectively designated hereafter in writing from time to time:

To HECA: HYDROGEN ENERGY CALIFORNIA LLC
30 Monument Square, Suite 235
Concord, MA 01742
Attn: Ms. Marisa Mascaro
Phone: 978-287-9529
Fax: 978-287-9512

To District: San Joaquin Valley APCD
1990 East Gettysburg Avenue
Fresno, CA 93726-0244
Attn: Mr. David Warner
Phone: (559) 230-5900
Fax: (559) 230-6061

11. Assignment. This Agreement shall be binding upon, and inure to the benefit of, each of the Parties and their respective successors and permitted assigns. No Party shall assign this Agreement or its rights or interests hereunder without the prior written consent of the other Party, such consent not to be unreasonably withheld or delayed. Notwithstanding the above, the Parties agree that HECA may freely assign its rights and duties under this Agreement, without District's prior written consent, to: (a) an affiliate of HECA; (b) a successor-in-interest by merger, consolidation or reorganization; (c) a purchaser or other transferee of the Project; or (d) a lender for purposes of financing the Project.

12. Entire Agreement and Amendment. This Agreement, together with the Exhibits attached hereto, contains the entire understanding between the Parties with respect to the subject matter herein. This Agreement may not be amended except by an instrument in writing signed by each Party.

13. Joint Effort. The Parties acknowledge and agree that each Party and its counsel have read this Agreement in its entirety, fully understand it, and accept its terms and conditions. Accordingly, the normal rule of construction to the effect that any ambiguities are to be resolved against the drafting party is not applicable and therefore shall not be employed in the interpretation of this Agreement or any amendment of it.

14. Counterparts. This Agreement may be executed in counterparts (including by facsimile or e-mailed Adobe® portable document format file), all of which shall constitute one document, and that by the signature(s) hereto, the undersigned further agree that facsimile or e-mailed Adobe® portable document format file signatures shall be effective for all purposes.

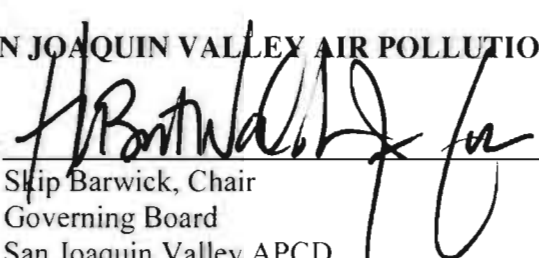
IN WITNESS WHEREOF, the Parties hereto have executed this Agreement the day and date first above written.

HYDROGEN ENERGY CALIFORNIA LLC

By: 
James L. Croyle
Title: Chief Executive Officer


Dated: 4/10/2013

SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT

By: 
Skip Barwick, Chair
Governing Board
San Joaquin Valley APCD

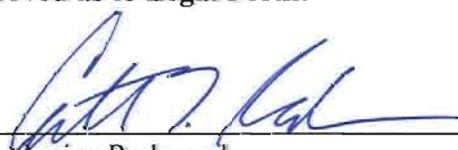
Dated: 4/18/13

Approved:

By: 
Seyed Sadredin
Executive Officer/Air Pollution Control Officer
San Joaquin Valley Air Pollution Control District

Dated: 4/18/13

Approved as to Legal Form:

By: 
Catherine Redmond
District Counsel

Approved as to Accounting Form:

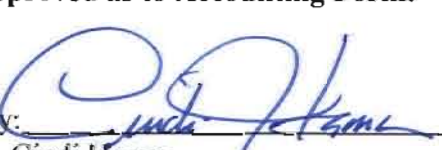
By: 
Cindi Hamm,
Director Administrative Services

Exhibit A

PART A-1

Outline of Methodology

To calculate the increased emissions from the Project compared with a new natural gas fired power plant, the emissions from the Project will be calculated as proposed and as they would be if the Project emitted at the same pounds of NOx per MW-hour rate as that of a recently licensed natural gas fired power generating facility. The difference between these two values is the mitigation amount (see Table 1 of Part A-2).

The fee is then calculated by multiplying the mitigation amount by the weighted average cost of purchasing NOx Emission Reduction Credits (ERC) in the San Joaquin Valley as reported in 2011 (\$67,492/ton NOx), plus 5% for administrative costs (see Table 2 of Part A-2).

PART A-2

Table 1: Turbine Emission Comparison

Annual Basis	Natural Gas¹	HECA²
Net Megawatt-hours (MW-hr/yr)	3,023,388	2,243,040
NOx emissions (tpy)	144	123.5
NOx emissions per MW-hr (lb/MW-hr) net	0.09526	.0110
Natural gas equivalent NOx emissions (tpy) with HECA net MW-hr/yr	106.8	

Notes:

- 1 – Information for a representative natural gas fired power plant was taken from the proposed emissions from the Avenal Energy Center's Application for Certification and CEC Final Staff Assessment.
- 2 – HECA emissions include heat recovery steam generator and coal dryer emissions with hydrogen-rich fuel and natural gas usage including startup and shutdown.

Table 2: Cost Calculations

Project	NOx (tons/year)	Difference (tons/year)	Cost of ERC (\$/ton)	VERA fee (\$)*
HECA	123.5	16.7	67,492	1,181,135
Natural gas equivalent	106.8			

*Includes 5% administrative fee to cover District costs of contracting and administering emissions reductions



**BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV**

**AMENDED APPLICATION FOR CERTIFICATION
FOR THE HYDROGEN ENERGY
CALIFORNIA PROJECT**

**Docket No. 08-AFC-08A
PROOF OF SERVICE
(Revised 3/4/13)**

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INTERESTED AGENCIES

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Office of Governmental and
Environmental Relations
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Geothermal Resources)
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HECA Neighbors
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*Indicates Change

**ENERGY COMMISSION –
PUBLIC ADVISER**

Blake Roberts
Assistant Public Adviser
publicadviser@energy.ca.gov

COMMISSION DOCKET UNIT

CALIFORNIA ENERGY
COMMISSION – DOCKET UNIT
Attn: Docket No. 08-AFC-08A
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512
docket@energy.ca.gov

**OTHER ENERGY COMMISSION
PARTICIPANTS (LISTED FOR
CONVENIENCE ONLY):**

*After docketing, the Docket Unit
will provide a copy to the persons
listed below. Do not send copies of
documents to these persons
unless specifically directed to do
so.*

KAREN DOUGLAS
Commissioner and Presiding Member

ANDREW McALLISTER
Commissioner and Associate Member

Raoul Renaud
Hearing Adviser

Galen Lemei
Adviser to Presiding Member

Jennifer Nelson
Adviser to Presiding Member

*Hazel Miranda
Adviser to Associate Member

David Hungerford
Adviser to Associate Member

Patrick Saxton
Adviser to Associate Member

Eileen Allen
Commissioners' Technical
Adviser for Facility Siting

DECLARATION OF SERVICE

I, Dale Shileikis, declare that on April 26, 2013, I served and filed copies of the attached SJVUAPCD Mitigation Agreement and Voluntary Emission Reduction Agreement, dated April, 2013. This document is accompanied by the most recent Proof of Service, which I copied from the web page for this project at:
http://www.energy.ca.gov/sitingcases/hydrogen_energy/.

The document has been sent to the other persons on the Service List above in the following manner:

(Check one)

For service to all other parties and filing with the Docket Unit at the Energy Commission:

 X I e-mailed the document to all e-mail addresses on the Service List above and personally delivered it or deposited it in the US mail with first class postage to those persons noted above as "hard copy required";
OR

 Instead of e-mailing the document, I personally delivered it or deposited it in the US mail with first class postage to all of the persons on the Service List for whom a mailing address is given.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct, and that I am over the age of 18 years.

Dated: 4/26/13