DOE F 4600.1
(11/04)

U.S DEPARTMENT OF ENERGY

NOTICE OF FINANCIAL ASSISTANCE AWARD

Under the authority of Public Law 109-58, Energy Policy Act (2005)

1. PROJECT TITLE El Sobrante Ethanol Biorefinery	2. INSTRUMENT TYPE ☐ GRANT ☑ COOPERATIVE AGREEMENT
3. RECIPIENT (Name, address, zip code) BlueFire Ethanol, Inc. 31 Musick Irvine, CA 92618-1638	4.INSTRUMENT NO. DE-FC36-07GO17025 5.AMENDMENT NO. A000 6.BUDGET PERIOD FROM: 09/30/2007 THRU: 09/30/2008 7.PROJECT PERIOD FROM: 09/30/2007 THRU: 09/30/2008
8. RECIPIENT PROJECT DIRECTOR (Name, phone and E-mail) Mr. William B. Davis Phone: 661-269-3682 E-Mail: wdavis289@hughes.net 9. RECIPIENT BUSINESS OFFICER (Name, phone and E-mail) Mr. William B. Davis Phone: 661-269-3682 E-Mail: wdavis289@hughes.net	10. TYPE OF AWARD ☑ NEW ☐ CONTINUATION ☐ RENEWAL ☐ REVISION ☐ INCREMENTAL FUNDING
11. DOE PROJECT OFFICER (Name, address, phone and E-mail) Gene R. Petersen Phone: 303-275-4937 Golden Field Office 1617 Cole Blvd. Golden, CO 80401-3305 E-Mail: gene.petersen@go.doe.gov	12. DOE AWARD ADMINISTRATOR (Name, address phone and E-mail) Melissa Y. Wise Phone: 303-275-4907 Golden Field Office 1617 Cole Blvd. Golden, CO 80401-3305 E-Mail: melissa.wise@go.doe.gov

13. RECIPIENT TYPE

☐ STATE GOV'T ☐ INDIAN TRIBAL GOV'T ☐ HOSPITAL ☑ FOR PROFIT ORGANIZATION ☐ INDIVIDUAL

☐ LOCAL GOV'T ☐ INSTITUTION OF HIGHER EDUCATION ☐ OTHER NONPROFIT ORGANIZATION ☑ C ☐ P ☐ SP ☐ OTHER (Specify):

14. ACCOUNTING AND APPROPRIATIONS DATA:

Fund	Year	Allottee	Reporting Entity	SGL	Object Class	Project	Program	WFO	Local Use	Dollar Amount
00550.	2007.	31.	200835.	61000000.	41000.	0000000.	1004173.	0000000.	0000000	$3,691,094.00

EMPLOYER I.D.

a. TIN: 20-4590982

b. DUNS: 782017177

16. BUDGET AND FUNDING INFORMATION

a. CURRENT BUDGET PERIOD INFORMATION		b. CUMULATIVE DOE OBLIGATIONS	
(1) DOE Funds Obligated This Action	$ 3,691,094.00	(1) This Budget Period *[Total of lines a.(1) and a.(3)]*	$ 3,691,094.00
(2) DOE Funds Authorized for Carry Over	$ 0.00		
(3) DOE Funds Previously Obligated in this Budget Period	$ 0.00		
(4) DOE Share of Total Approved Budget	$ 3,691,094.00	(2) Prior Budget Periods	$ 0.00
(5) Recipient Share of Total Approved Budget	$ 5,536,641.00		
(6) Total Approved Budget	$ 9,227,735.00	(3) Project Period to Date *[Total of lines b.(1) and b.(2)]*	$ 3,691,094.00

17. TOTAL ESTIMATED COST OF PROJECT, INCLUDING DOE FUNDS TO FFRDC: $ 9,227,735.00

(This is the current estimated cost of the project. It is not a promise to award nor an authorization to expend funds in this amount.)

18. AWARD/AGREEMENT TERMS AND CONDITIONS

This award/agreement consists of this form plus the following:

a. Special terms and conditions.

b. Applicable program regulations *(Specify)* N/A *(Date)* _____.

c. DOE Assistance Regulations, 10 CFR Part 600 at http://ecfr.gpoaccess.gov or, if the award is a grant to a Federal Demonstration Partnership (FDP) institution, the FDP Terms and Conditions and the DOE FDP Agency Specific Requirements at http://www.nsf.gov.

d. Application/proposal as approved by DOE.

e. National Policy Assurances to be incorporated as Award Terms in effect on date of award at http://grants.pr.doe.gov.

19. REMARKS

The attached Special Terms and Conditions (Attachment 1); Intellectual Propery Provisions, CDSB-1003 (Attachment 2); Federal Assistance Reporting Checklist and Instructions, DOE F 4600.2 (Attachment 3); and Statement of Project Objectives (Attachment 4) are added and made part of this award.

20. EVIDENCE OF RECIPIENT ACCEPTANCE	21. AWARDED BY
(Signature of Authorized Recipient Official) 10/08/07 (Date)	(Signature) James P. Damm 9/29/07 (Date)
ARNOLD R. KLANN (Name)	James P. Damm (Name)
President (Title)	Contracting Officer (Title)

Special Terms and Conditions for Use in Most Grants and Cooperative Agreements

Table of Contents

Number	Subject	Page
1.	PURPOSE OF PROJECT	2
2.	RESOLUTION OF CONFLICTING CONDITIONS	2
3.	PAYMENT PROCEDURES – REIMBURSEMENT THROUGH THE AUTOMATED CLEARING HOUSE (ACH) VENDOR INQUIRY PAYMENT ELECTRONIC REPORTING SYSTEM (VIPERS)	2
4.	COST SHARING	3
5.	REBUDGETING AND RECOVERY OF INDIRECT COSTS	3
6.	PRE-AWARD COSTS	4
7.	STATEMENT OF FEDERAL STEWARDSHIP	4
8.	STATEMENT OF SUBSTANTIAL INVOLVEMENT	4
9.	SITE VISITS	5
10.	REPORTING REQUIREMENTS	5
11.	PUBLICATIONS	6
12.	FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS	6
13.	INTELLECTUAL PROPERTY PROVISIONS AND CONTACT INFORMATION	7
14.	NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS	7
15.	LOBBYING RESTRICTIONS	7
16.	NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS	7
17.	INSOLVENCY, BANKRUPTCY OR RECEIVERSHIP	7
18.	AT RISK FOR FINANCIAL CAPABILITY	8
19.	SUBCONTRACT APPROVALS	8
20.	AVAILABILITY OF FUNDS THROUGH CONDITION SUBSEQUENT	9

Special Terms and Conditions for Use in Most Grants and Cooperative Agreements

1. PURPOSE OF PROJECT

The purpose of this Cooperative Agreement is to prepare data and designs and obtain the necessary permits and other information needed to support a decision regarding whether to proceed, in a subsequent agreement, to jointly finance construction, commissioning and start-up of a commercial integrated bio-refinery to be located near El Sobrante, California. The proposed bio-refinery would convert 700 metric dry tonnes per day biomass to ethanol.

2. RESOLUTION OF CONFLICTING CONDITIONS

Any apparent inconsistency between Federal statutes and regulations and the terms and conditions contained in this award must be referred to the DOE Award Administrator identified in Block 12 of the Notice of Financial Assistance Award for guidance.

3. PAYMENT PROCEDURES – REIMBURSEMENT THROUGH THE AUTOMATED CLEARING HOUSE (ACH) VENDOR INQUIRY PAYMENT ELECTRONIC REPORTING SYSTEM (VIPERS)

a. Method of Payment. Payment will be made by reimbursement through ACH.

b. Requesting Reimbursement. Requests for reimbursements must be made electronically through Department of Energy's Oak Ridge Financial Service Center (ORFSC) VIPERS. To access and use VIPERS, you must enroll at https://finweb.oro.doe.gov/vipers.htm. Detailed instructions on how to enroll are provided on the web site.

For non-construction awards, you must submit a Standard Form (SF) 270, "Request for Advance or Reimbursement" at https://finweb.oro.doe.gov/vipers.htm and attach a file containing appropriate supporting documentation. The file attachment must show the total federal share claimed on the SF 270, the non-federal share claimed for the billing period if cost sharing is required, and cumulative expenditures to date (both Federal and non-Federal) for each of the following categories: salaries/wages and fringe benefits; equipment; travel; participant/training support costs, if any; other direct costs, including subawards/contracts; and indirect costs. For construction awards, you must submit a SF 271, "Outlay Report and Request for Reimbursement for Construction Programs," through VIPERS.

c. Timing of submittals. Submittal of the SF 270 or SF 271 should coincide with your normal billing pattern, but not more frequently than every two weeks. Requests for reimbursement must be limited to the amount of disbursements made during the billing period for the federal share of direct project costs and the proportionate share of any allowable indirect costs incurred during that billing period.

d. Adjusting payment requests for available cash. You must disburse any funds that are available from repayments to and interest earned on a revolving fund, program income, rebates, refunds, contract settlements, audit recoveries, credits, discounts, and interest earned on any of those funds before requesting additional cash payments from DOE/NNSA.

e. Payments. The DOE approving official will approve the invoice as soon as practicable but not later than 30 days after your request is received, unless the billing is improper. Upon receipt of an invoice payment authorization from the DOE approving official, the ORFSC will disburse payment to you. You may check the status of your payments at the VIPER web site. All payments are made by electronic funds transfer to the bank account identified on the ACH Vendor/Miscellaneous Payment Enrollment Form (SF 3881) that you filed.

4. COST SHARING

a. Total Estimated Project Cost is the sum of the Government share and Recipient share of the estimated project costs. The Recipient's cost share must come from non-Federal sources unless otherwise allowed by law. By accepting federal funds under this award, you agree that you are liable for your percentage share of total incurred allowable project costs, on a budget period basis, even if the project is terminated early or is not funded to its completion. This cost is shared as follows:

Budget Period No.	Budget Period Start Date	Government Share $ / %	Recipient Share $ / %	Total Estimated Cost
1	09/30/2007	$3,691,094 / 40%	$5,536,641 / 60%	$9,227,735
Total Project		$3,691,094	$5,536,641	$9,227,735

b. If you discover that you may be unable to provide cost sharing of at least the amount identified in paragraph a of this article, you should immediately provide written notification to the DOE Award Administrator identified in Block 12 of the Notice of Financial Assistance Award indicating whether you will continue or phase out the project. If you plan to continue the project, the notification must describe how replacement cost sharing will be secured.

c. You must maintain records of all project costs that you claim as cost sharing, including in-kind costs, as well as records of costs to be paid by DOE/NNSA. Such records are subject to audit.

d. Failure to provide the cost sharing required by this Article may result in the subsequent recovery by DOE/NNSA of some or all the funds provided under the award.

5. REBUDGETING AND RECOVERY OF INDIRECT COSTS

a. If actual allowable indirect costs are less than those budgeted and funded under the award, you may use the difference to pay additional allowable direct costs during the project period. If at the completion of the award the Government's share of total allowable

costs (i.e., direct and indirect), is less than the total costs reimbursed, you must refund the difference.

b. Recipients are expected to manage their indirect costs. DOE will not amend an award solely to provide additional funds for changes in indirect cost rates (See "Incremental Funding and Maximum Obligation article). DOE recognizes that the inability to obtain full reimbursement for indirect costs means the recipient must absorb the underrecovery. Such underrecovery may be allocated as part of the organization's required cost sharing.

6. PRE-AWARD COSTS

You are entitled to reimbursement for costs incurred on or after February 13, 2007, as authorized by the pre-award costs letter dated September 7, 2007, if such costs are allowable in accordance with the applicable Federal cost principles referenced in 10 CFR part 600.

7. STATEMENT OF FEDERAL STEWARDSHIP

DOE/NNSA will exercise normal Federal stewardship in overseeing the project activities performed under this award. Stewardship activities include, but are not limited to, conducting site visits; reviewing performance and financial reports; providing technical assistance and/or temporary intervention in unusual circumstances to correct deficiencies which develop during the project; assuring compliance with terms and conditions; and reviewing technical performance after project completion to insure that the award objectives have been accomplished.

8. STATEMENT OF SUBSTANTIAL INVOLVEMENT

1. Government Insight

   In order to adequately monitor project progress and provide technical direction to the Recipient, DOE must be provided an adequate level of insight into various Recipient activities. Government Insight activities by DOE include attendance at Recipient meetings, reviews and tests, as well as access for DOE's consultants to perform independent evaluations of Recipient's plans and processes. Recipient shall notify the DOE Project Officer of meetings, reviews, and tests in sufficient time to permit DOE participation, and provide all appropriate documentation for DOE review.

2. Specific activities to be conducted by DOE

   a. Risk Evaluation –DOE will review the Recipient's initial Risk Mitigation Plan (RMP) for quality and completeness. DOE will also monitor updates to the RMP and actions taken by the Recipient during the performance of its award to mitigate risks and improve the probability of successful construction of a commercial cellulosic biorefinery. At DOE's discretion, additional independent risk analyses of the project by DOE consultants may be requested.

b. Independent Engineering Assessments –DOE will engage a private, independent engineering (IE) firm to assist in assessing the progress of the project and provide timely and accurate reports to DOE. The Recipient will ensure that the IE has access to any and all relevant documentation sufficient to allow the IE to provide independent evaluations to DOE on the progress of the project. Such documentation includes but is not limited to the following:

- Drawings and specifications
- Construction and Execution plans
- Resource loaded schedules
- Design functions and requirements for the site final design review
- Risk management plans
- Value management and engineering studies and/or plans
- Acquisition strategies
- Project execution plans
- Project controls including earned value management systems
- Qualifications of the integrated project team.
- Financial strategy for funding the construction project
- Updated marketing and business plan

DOE will evaluate the quality and completeness of information and documentation provided by the Recipient to DOE and its consultants in order to allow DOE to provide technical direction to the Recipient about how best to achieve the purposes of the award. Consultants to DOE may not provide technical direction to the Recipient.

3. Amendment Approval – The DOE Contracting Officer is the only individual who may amend this Agreement or commit DOE to the expenditure of additional public funds. Any commitment by anyone other than the Contracting Officer, either expressed or implied, is invalid.

9. SITE VISITS

DOE/NNSA's authorized representatives have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. You must provide, and must require your subawardees to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

10. REPORTING REQUIREMENTS

a. Requirements. The reporting requirements for this award are identified on the Federal Assistance Reporting Checklist, DOE F 4600.2, attached to this award. Failure to comply with these reporting requirements is considered a material noncompliance with the terms

of the award. Noncompliance may result in withholding of future payments, suspension or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards by Federal agencies.

b. Dissemination of scientific/technical reports. Scientific/technical reports submitted under this award will be disseminated on the Internet via the DOE Information Bridge (www.osti.gov/bridge), unless the report contains patentable material, protected data or SBIR/STTR data. In addition, these reports must not contain any limited rights data (proprietary data), classified information, information subject to export control classification, or other information not subject to release. Citations for journal articles produced under the award will appear on the DOE Energy Citations Database (www.osti.gov/energycitations).

11. PUBLICATIONS

a. You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

b. An acknowledgment of Federal support and a disclaimer must appear in the publication of any material, whether copyrighted or not, based on or developed under this project, as follows:

> *Acknowledgment*: "This material is based upon work supported by the Department of Energy [National Nuclear Security Administration] [add name(s) of other agencies, if applicable] under Award Number(s) [enter the award number(s)]."
>
> *Disclaimer*: "This report was prepared as an account of work sponsored by an agency of the United States Government. Neither the United States Government nor any agency thereof, nor any of their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights. Reference herein to any specific commercial product, process, or service by trade name, trademark, manufacturer, or otherwise does not necessarily constitute or imply its endorsement, recommendation, or favoring by the United States Government or any agency thereof. The views and opinions of authors expressed herein do not necessarily state or reflect those of the United States Government or any agency thereof."

12. FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS

You must obtain any required permits and comply with applicable federal, state, and municipal laws, codes, and regulations for work performed under this award.

13. INTELLECTUAL PROPERTY PROVISIONS AND CONTACT INFORMATION

The intellectual property provisions applicable to this award are provided as an attachment to this award or are referenced in Block 19 of the Notice of Financial Assistance Award (NFAA). Questions regarding intellectual property matters should be referred to Patent Counsel through the Award Administrator identified in Block 12 of the NFAA.

14. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS

DOE will coordinate preparation of the documentation necessary to support DOE's NEPA analysis and subsequent decision-making. DOE may require measures, developed in coordination with the Recipient, to minimize or mitigate potential environmental impacts as a condition of any future funding. Nothing in this provision shall be construed as a commitment by DOE to provide funding beyond this award.

You are restricted from taking any action using Federal funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE/NNSA providing either a NEPA clearance or a final NEPA decision regarding this project. Prohibited actions include, but are not limited to, demolition of existing buildings, site clearing, ground breaking, construction, and/or detailed design. All tasks described in the Statement of Project Objectives are categorically excluded and do not require further review. This NEPA determination does not allow for the purchase of capital equipment, site modification/preparation, construction, or any other irreversible or irretrievable actions.

15. LOBBYING RESTRICTIONS

By accepting funds under this award, you agree that none of the funds obligated on the award shall be expended, directly or indirectly, to influence congressional action on any legislation or appropriation matters pending before Congress, other than to communicate to Members of Congress as described in 18 U.S.C. 1913. This restriction is in addition to those prescribed elsewhere in statute and regulation.

16. NOTICE REGARDING THE PURCHASE OF AMERICAN-MADE EQUIPMENT AND PRODUCTS -- SENSE OF CONGRESS

It is the sense of the Congress that, to the greatest extent practicable, all equipment and products purchased with funds made available under this award should be American-made.

17. INSOLVENCY, BANKRUPTCY OR RECEIVERSHIP

(a) You shall immediately notify the DOE Administrator identified in Block 12 of the Notice of Financial Assistance Award of the occurrence of any of the following events: (i) you or your parent's filing of a voluntary case seeking liquidation or reorganization under the Bankruptcy Act; (ii) your consent to the institution of an involuntary case under the Bankruptcy Act against you or your parent; (iii) the filing of any similar proceeding for or against you or your parent, or its consent to, the dissolution, winding-up or readjustment of

your debts, appointment of a receiver, conservator, trustee, or other officer with similar powers over you, under any other applicable state or federal law; or (iv) your insolvency due to your inability to pay your debts generally as they become due.

(b) Such notification shall be in writing and shall: (i) specifically set out the details of the occurrence of an event referenced in paragraph (a); (ii) provide the facts surrounding that event; and (iii) provide the impact such event will have on the project being funded by this award.

(c) Upon the occurrence of any of the four events described in the first paragraph, DOE reserves the right to conduct a review of your award to determine your compliance with the required elements of the award (including such items as cost share, progress towards technical project objectives, and submission of required reports). If the DOE review determines that there are significant deficiencies or concerns with your performance under the award, DOE reserves the right to impose additional requirements, as needed, including (i) change your payment method; or (ii) institute payment controls.

(d) Failure of the Recipient to comply with this provision may be considered by the Contracting Officer as a material noncompliance of this financial assistance award.

18. AT RISK FOR FINANCIAL CAPABILITY

You have been determined to be at risk for financial capability based on the fact that there is no organizational data to obtain a Dun and Bradstreet (D&B) Risk Assessment score.

Based on this determination the following requirements, as listed below, have been incorporated into this award.

- ACH Reimbursement Payment method, and
- Monthly Project Status Reports: see the Federal Assistance Reporting Checklist and Instructions, DOE F 4600.2, under "Special Instructions" for more detail.

You may report any change in circumstances that impact DOE's determination of your financial capability. If you feel that your circumstances have changed to this degree, you may request a re-evaluation at any time after 6 months from the initial determination. Please provide a written request and support to the DOE Award Administrator identified in Block 12 of the Notice of Financial Assistance Award.

DOE will remove this provision by modification to the award if the conditions that prompted it have been corrected, as approved by the Contracting Officer.

19. SUBCONTRACT APPROVALS

a. At Risk Notice: The Recipient must obtain written approval by the Contracting Officer for reimbursement of costs associated with subcontractors/activities listed in paragraph b. below. No funds shall be expended on the subcontracts supporting the tasks identified in paragraph b. below unless DOE approval is provided. DOE does not guarantee or assume any obligation to reimburse costs

incurred by the Recipient or subcontractor for these tasks, until approval is provided in writing by the Contracting Officer.

b. Contracting Officer approval as set out above is requested for the following:

Task #	Subcontractors and Activity
C of SOPO	MECS, Inc. – Finalized and executed EPC Contract
C of SOPO	CEQA Consultant
C of SOPO	Traffic Engineer
C of SOPO	Acousitician

With the exception of MECS, Inc., for selected subcontract(s) under $100,000, the Recipient must submit a Statement of Work, basis of cost estimate, and letter of cost share commitment. For selected subcontract(s) of $100,000 or more, the Recipient must submit a Statement of Work, SF424A Budget Information – Nonconstruction Programs, PMC 123.1 Cost Reasonableness Determination for Financial Assistance, and letter of cost share commitment.

The DOE Contracting Officer may require additional information concerning these tasks prior to providing written approval.

c. Upon written approval by the Contracting Officer, the Recipient may then receive payment for the tasks identified in paragraph b. above for allowable costs incurred, or DOE will recognize costs incurred toward cost share requirements, if any, in accordance with the payment provisions contained in the Special Terms and Conditions of this agreement.

20. AVAILABILITY OF FUNDS THROUGH CONDITION SUBSEQUENT

a. At Risk Notice: Notwithstanding the obligation of funds shown in Block 16 (A)(1) of the Notice of Financial Assistance Award, no funds shall be made available to the Recipient for payment, and DOE does not guarantee or assume any obligation to reimburse costs incurred by the Recipient, until the Condition Subsequent in paragraph (b) below is fully complied with by the Recipient.

b. Condition Subsequent: As a condition to either receiving funds under this award or recognizing incurred costs toward cost share requirements, on or before October 31, 2007, the Recipient must submit the following:

- Copy of your approved Indirect Rate Agreement or a Rate Proposal, following the guidelines in the PMC 400.2 form;
- Revised Application for Federal Assistance, SF 424;
- Revised Budget Information, SF 424A;
- Revised Cost Reasonableness Determination for Financial Assistance, PMC 123.1; and

NOTE: This form supports the figures provided in the SF 424A.

- Project Risk Mitigation Plan, including your response to the IPA report, that is satisfactory to DOE.

Forms may be obtained from the Project Management Center, Recipient Resources page at https://www.eere-pmc.energy.gov/Forms.aspx

c. Availability of Funds: Upon completion of the above Condition Subsequent to the satisfaction of the Contracting Officer, the Contracting Officer shall notify the Recipient and make available the obligated amount for payment through an amendment which will incorporate an approved Budget. The Recipient may then receive payment for allowable costs incurred or recognize costs incurred toward cost share requirements, if any, in accordance with the payment provisions contained in the Special Terms and Conditions of this Agreement.

d. Termination or Suspension: If the above Condition Subsequent is not fully complied with to the satisfaction of the Contracting Officer, the Contracting Officer may unilaterally terminate or suspend this agreement and deobligate the amounts obligated. In such case, the Recipient shall not be reimbursed for costs incurred which were incurred at the Recipient's risk as described in Paragraph a. above.

CDSB-1003
Intellectual Property Provisions (CDSB-1003)
Cooperative Agreement - Special Data Statute
Research, Development, or Demonstration
Domestic Small Businesses

01. FAR 52.227-1	Authorization and Consent (JUL 1995)-Alternate I (APR 1984)
02. FAR 52.227-2	Notice and Assistance Regarding Patent and Copyright Infringement (AUG 1996) *This clause is not applicable if the award is for less than $100,000, in aggregate*
03. 10 CFR 600.325 Appendix A	Rights in Data - Programs Covered Under Special Data Statutes (OCT 2003)
04. FAR 52.227-23	Rights to Proposal Data (Technical) (JUN 1987)
05. 10 CFR 600.325 Appendix A	Patent Rights (Small Business Firms and Nonprofit Organizations) (OCT 2003)

NOTE: In reading these provisions, any reference to "contractor" shall mean "recipient," and any reference to "contract" or "subcontract" shall mean "award" or "subaward."

01. FAR 52.227-1 Authorization and Consent (JUL 1995)-Alternate I (APR 1984)

(a) The Government authorizes and consents to all use and manufacture of any invention described in and covered by a United States patent in the performance of this contract or any subcontract at any tier.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for research and development expected to exceed the simplified acquisition threshold; however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.

(End of clause)

02. FAR 52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for sup- plies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at FAR 2.101.

(End of clause)

03. 10 CFR 600.325 Appendix A, Rights in Data - Programs Covered Under Special Data Statutes (OCT 2003)

(a) Definitions

Computer Data Bases, as used in this clause, means a collection of data in a form capable of, and for the purpose of, being stored in, processed, and operated on by a computer. The term does not include computer software.

Computer software, as used in this clause, means (i) computer programs which are data comprising a series of instructions, rules, routines, or statements, regardless of the media in which recorded, that allow or cause a computer to perform a specific operation or series of operations and (ii) data comprising source code listings, design details, algorithms, processes, flow charts, formulae and related material that would enable the computer program to be produced, created or compiled. The term does not include computer data bases.

Data, as used in this clause, means recorded information, regardless of form or the media on which it may be recorded. The term includes technical data and computer software. The term does not include information incidental to administration, such as financial, administrative, cost or pricing or management information.

Form, fit, and function data, as used in this clause, means data relating to items, components, or processes that are sufficient to enable physical and functional interchangeability as well as data identifying source, size, configuration, mating and attachment characteristics, functional characteristics, and performance requirements except that for computer software it means data identifying source, functional characteristics, and performance requirements but specifically excludes the source code, algorithm, process, formulae, and flow charts of the software.

Limited rights data, as used in this clause, means data (other than computer software) developed at private expense that embody trade secrets or are commercial or financial and confidential or privileged.

Restricted computer software, as used in this clause, means computer software developed at private expense and

that is a trade secret; is commercial or financial and confidential or privileged; or is published copyrighted computer software; including modifications of such computer software.

Protected data, as used in this clause, means technical data or commercial or financial data first produced in the performance of the award which, if it had been obtained from and first produced by a non-federal party, would be a trade secret or commercial or financial information that is privileged or confidential under the meaning of 5 U.S.C. 552(b)(4) and which data is marked as being protected data by a party to the award.

Protected rights, as used in this clause, mean the rights in protected data set forth in the Protected Rights Notice of paragraph (g) of this clause.

Technical data, as used in this clause, means that data which are of a scientific or technical nature. Technical data does not include computer software, but does include manuals and instructional materials and technical data formatted as a computer data base.

Unlimited rights, as used in this clause, means the right of the Government to use, disclose, reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, in any manner and for any purpose whatsoever, and to have or permit others to do so.

(b) Allocation of Rights

(1) Except as provided in paragraph (c) of this clause regarding copyright, the Government shall have unlimited rights in--

(i) Data specifically identified in this agreement as data to be delivered without restriction;

(ii) Form, fit, and function data delivered under this agreement;

(iii) Data delivered under this agreement (except for restricted computer software) that constitute manuals or instructional and training material for installation, operation, or routine maintenance and repair of items, components, or processes delivered or furnished for use under this agreement; and

(iv) All other data delivered under this agreement unless provided otherwise for protected data in accordance with paragraph (g) of this clause or for limited rights data or restricted computer software in accordance with paragraph (h) of this clause.

(2) The Recipient shall have the right to--

(i) Protect rights in protected data delivered under this agreement in the manner and to the extent provided in paragraph (g) of this clause;

(ii) Withhold from delivery those data which are limited rights data or restricted computer software to the extent provided in paragraph (h) of this clause;

(iii) Substantiate use of, add, or correct protected rights or copyrights notices and to take other appropriate action, in accordance with paragraph (e) of this clause; and

(iv) Establish claim to copyright subsisting in data first produced in the performance of this agreement to the extent provided in subparagraph (c)(1) of this clause.

(c) Copyright

(1) Data first produced in the performance of this agreement. Except as otherwise specifically provided in this agreement, the Recipient may establish, without the prior approval of the Contracting Officer, claim to copyright subsisting in any data first produced in the performance of this agreement. If claim to copyright is made, the Recipient shall affix the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Government sponsorship (including agreement number) to the data when such data are delivered to the Government, as well as when the data are published or deposited for registration as a published work in the U.S. Copyright Office. For such copyrighted data, including computer software, the Recipient grants to the Government, and others acting on its behalf, a paid-up nonexclusive, irrevocable, worldwide license to reproduce, prepare derivative works, distribute copies to the public, and perform publicly and display publicly, by or on behalf of the Government, for all such data.

(2) Data not first produced in the performance of this agreement. The Recipient shall not, without prior written permission of the Contracting Officer, incorporate in data delivered under this agreement any data that are not first produced in the performance of this agreement and that contain the copyright notice of 17 U.S.C. 401 or 402, unless the Recipient identifies such data and grants to the Government, or acquires on its behalf, a license of the same scope as set forth in subparagraph (c)(1) of this clause; provided, however, that if such data are computer software, the Government shall acquire a copyright license as set forth in subparagraph (h)(3) of this clause if included in this agreement or as otherwise may be provided in a collateral agreement incorporated or made a part of this agreement.

(3) Removal of copyright notices. The Government agrees not to remove any copyright notices placed on data

pursuant to this paragraph (c), and to include such notices on all reproductions of the data.

(d) Release, Publication and Use of Data

(1) The Receipt shall have the right to use, release to others, reproduce, distribute, or publish any data first produced or specifically used by the Recipient in the performance of this contract, except to the extent such data may be subject to the Federal export control or national security laws or regulations, or unless otherwise provided in this paragraph of this clause or expressly set forth in this contract.

(2) The Recipient agrees that to the extent it receives or is given access to data necessary for the performance of this agreement which contain restrictive markings, the Recipient shall treat the data in accordance with such markings unless otherwise specifically authorized in writing by the Contracting Officer.

(e) Unauthorized Marking of Data

(1) Notwithstanding any other provisions of this agreement concerning inspection or acceptance, if any data delivered under this agreement are marked with the notices specified in subparagraph (g)(2) or (g)(3) of this clause and use of such is not authorized by this clause, or if such data bears any other restrictive or limiting markings not authorized by this agreement, the Contracting Officer may at any time either return the data to the Recipient or cancel or ignore the markings. However, the following procedures shall apply prior to canceling or ignoring the markings.

(i) The Contracting Officer shall make written inquiry to the Recipient affording the Recipient 30 days from receipt of the inquiry to provide written justification to substantiate the propriety of the markings;

(ii) If the Recipient fails to respond or fails to provide written justification to substantiate the propriety of the markings within the 30-day period (or a longer time not exceeding 90 days approved in writing by the Contracting Officer for good cause shown), the Government shall have the right to cancel or ignore the markings at any time after said period and the data will no longer be made subject to any disclosure prohibitions.

(iii) If the Recipient provides written justification to substantiate the propriety of the markings within the period set in subdivision (e)(1)(i) of this clause, the Contracting Officer shall consider such written justification and determine whether or not the markings are to be cancelled or ignored. If the Contracting Officer determines that the markings are authorized, the Recipient shall be so notified in writing. If the Contracting Officer determines, with concurrence of the head of the contracting activity, that the markings are not authorized, the Contracting Officer shall furnish the Recipient a written determination, which determination shall become the final agency decision regarding the appropriateness of the markings unless the Recipient files suit in a court of competent jurisdiction within 90 days of receipt of the Contracting Officer's decision. The Government shall continue to abide by the markings under this subdivision (e)(1)(iii) until final resolution of the matter either by the Contracting Officer's determination become final (in which instance the Government shall thereafter have the right to cancel or ignore the markings at any time and the data will no longer be made subject to any disclosure prohibitions), or by final disposition of the matter by court decision if suit is filed.

(2) The time limits in the procedures set forth in subparagraph (e)(1) of this clause may be modified in accordance with agency regulations implementing the Freedom of Information Act (5 U.S.C. 552) if necessary to respond to a request thereunder.

(f) Omitted or Incorrect Markings

(1) Data delivered to the Government without either the limited rights or restricted rights notice as authorized by paragraph (g) of this clause, or the copyright notice required by paragraph (c) of this clause, shall be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use, or reproduction of such data. However, to the extent the data has not been disclosed without restriction outside the Government, the Recipient may request, within 6 months (or a longer time approved by the Contracting Officer for good cause shown) after delivery of such data, permission to have notices placed on qualifying data at the Recipient's expense, and the Contracting Officer may agree to do so if the Recipient--

(i) Identifies the data to which the omitted notice is to be applied;

(ii) Demonstrates that the omission of the notice was inadvertent;

(iii) Establishes that the use of the proposed notice is authorized; and

(iv) Acknowledges that the Government has no liability with respect to the disclosure, use, or reproduction of any such data made prior to the addition of the notice or resulting from the omission of the notice.

(2) The Contracting Officer may also:

(i) Permit correction at the Recipient's expense of incorrect notices if the Recipient identifies the data on which correction of the notice is to be made, and demonstrates that the correct notice is authorized; or

(ii) Correct any incorrect notices.

(g) Rights to Protected Data

(1) The Recipient may, with the concurrence of DOE, claim and mark as protected data, any data first produced in the performance of this award that would have been treated as a trade secret if developed at private expense. Any such claimed ``protected data" will be clearly marked with the following Protected Rights Notice, and will be treated in accordance with such Notice, subject to the provisions of paragraphs (e) and (f) of this clause.

PROTECTED RIGHTS NOTICE

These protected data were produced under agreement no. DE-FC36-07GO17025 with the U.S. Department of Energy and may not be published, disseminated, or disclosed to others outside the Government until five (5) years from the date they were generated, unless express written authorization is obtained from the recipient. Upon expiration of the period of protection set forth in this Notice, the Government shall have unlimited rights in this data. This Notice shall be marked on any reproduction of this data, in whole or in part.

(End of notice).

(2) Any such marked Protected Data may be disclosed under obligations of confidentiality for the following purposes:

(a) For evaluation purposes under the restriction that the ``Protected Data" be retained in confidence and not be further disclosed; or

(b) To subcontractors or other team members performing work under the Government's program on this agreement.

(3) The obligations of confidentiality and restrictions on publication and dissemination shall end for any Protected Data.

(a) At the end of the protected period;

(b) If the data becomes publicly known or available from other sources without a breach of the obligation of confidentiality with respect to the Protected Data;

(c) If the same data is independently developed by someone who did not have access to the Protected Data and such data is made available without obligations of confidentiality; or

(d) If the Recipient disseminates or authorizes another to disseminate such data without obligations of confidentiality.

(4) However, the Recipient agrees that the following types of data are not considered to be protected and shall be provided to the Government when required by this award without any claim that the data are Protected Data: General test results and data that demonstrate progress toward meeting DOE's technical goals to design, construct, build, and operate an integrated biorefinery employing lignocellulosic feedstocks. These data will include financial and project information sufficient to validate that the facility constructed will operate profitably according to the standards set forth in Section 932 of EPAct 2005, such as operating costs and overall ethanol yields. These results and data will be made available to the public and included in the project final report, and in other reports and presentations, as appropriate. The parties agree that notwithstanding the data enumerated above, nothing precludes the Government from seeking delivery of additional data in accordance with this award, or from making publicly available additional nonprotected data, nor does the preceding enumerated data constitute any admission by the Government that technical data not so enumerated is Protected Data.

(5) The Government's sole obligation with respect to any protected data shall be as set forth in this paragraph (g).

(h) Protection of Limited Rights Data

When data other than that listed in subparagraphs (b)(1)(i), (ii), and (iii) of this clause are specified to be delivered under this agreement and such data qualify as either limited rights data or restricted computer software, the Recipient, if the Recipient desires to continue protection of such data, shall withhold such data and not furnish them to the Government under this agreement. As a condition to this withholding the Recipient shall identify the data being withheld and furnish form, fit, and function data in lieu thereof.

(i) Subaward/Contract

The Recipient has the responsibility to obtain from its subrecipients/contractors all data and rights therein necessary to fulfill the Recipient's obligations to the Government under this agreement. If a subrecipient/contractor refuses to accept terms affording the Government such rights, the Recipient shall promptly bring such refusal to the attention of the Contracting Officer and not proceed with subaward/contract award without further authorization.

(j) Additional Data Requirements

In addition to the data specified elsewhere in this agreement to be delivered, the Contracting Officer may, at anytime during agreement performance or within a period of 3 years after acceptance of all items to be delivered under this agreement, order any data first produced or specifically used in the performance of this agreement. This clause is applicable to all data ordered under this subparagraph. Nothing contained in this subparagraph shall require the Recipient to deliver any data the withholding of which is authorized by this clause or data which are specifically identified in this agreement as not subject to this clause. When data are to be delivered under this subparagraph, the Recipient will be compensated for converting the data into the prescribed form, for reproduction, and for delivery.
(k) The Recipient agrees, except as may be otherwise specified in this agreement for specific data items listed as not subject to this paragraph, that the Contracting Officer or an authorized representative may, up to three years after acceptance of all items to be delivered under this contract, inspect at the Recipient's facility any data withheld pursuant to paragraph (h) of this clause, for purposes of verifying the Recipient's assertion pertaining to the limited rights or restricted rights status of the data or for evaluating work performance. Where the Recipient whose data are to be inspected demonstrates to the Contracting Officer that there would be a possible conflict of interest if the inspection were made by a particular representative, the Contracting Officer shall designate an alternate inspector.

(End of clause)

04. FAR 52.227-23 Rights to Proposal Data (Technical) (JUN 1987)

Except for data contained on pages 38-58 and Appendix 1, it is agreed that as a condition of award of this contract, and notwithstanding the conditions of any notice appearing thereon, the Government shall have unlimited rights (as defined in the "Rights in Data--General" clause contained in this contract) in and to the technical data contained in the proposal dated August 9, 2006, upon which this contract is based.

05. 10 CFR 600.325 Appendix A, Patent Rights (Small Business Firms and Nonprofit Organizations) (OCT 2003)

(a) Definitions

Invention means any invention or discovery which is or may be patentable or otherwise protectable under title 35 of the United States Code, or any novel variety of plant which is or may be protected under the Plant Variety Protection Act (7 U.S.C. 2321 et seq.).

Made when used in relation to any invention means the conception or first actual reduction to practice of such invention.

Nonprofit organization means a university or other institution of higher education or an organization of the type described in section 501(c)(3) of the Internal Revenue Code of 1954 (26 U.S.C. 501(c)) and exempt from taxation under section 501(a) of the Internal Revenue Code (26 U.S.C. 501(a)) or any nonprofit scientific or educational organization qualified under a State nonprofit organization statute.

Practical application means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are to the extent permitted by law or Government regulations available to the public on reasonable terms.

Small business firm means a small business concern as defined at section 2 of Public Law 85-536 (16 U.S.C. 632) and implementing regulations of the Administrator of the Small Business Administration. For the purpose of this clause, the size standards for small business concerns involved in Government procurement and subcontracting at 13 CFR 121.3 through 121.8 and 13 CFR 121.3 through 121.12, respectively, will be used.

Subject invention means any invention of the Recipient conceived or first actually reduced to practice in the performance of work under this award, provided that in the case of a variety of plant, the date of determination (as defined in section 41(d) of the Plant Variety Protection Act, 7 U.S.C. 2401(d) must also occur during the period of award performance.

(b) Allocation of Principal Rights

The Recipient may retain the entire right, title, and interest throughout the world to each subject invention subject to the provisions of this Patent Rights clause and 35 U.S.C. 203. With respect to any subject invention in which the Recipient retains title, the Federal Government shall have a non-exclusive, nontransferable, irrevocable, paid-up license to practice or have practiced for or on behalf of the U.S. the subject invention throughout the world.

(c) Invention Disclosure, Election of Title and Filing of Patent Applications by Recipient

(1) The Recipient will disclose each subject invention to DOE within two months after the inventor discloses it in writing to Recipient personnel responsible for the administration of patent matters. The disclosure to DOE shall be in the form of a written report and shall identify the award under which the invention was made and the inventor(s). It shall be sufficiently complete in technical detail to convey a clear understanding to the extent known at the time of disclosure, of the nature, purpose, operation, and the physical, chemical, biological or electrical characteristics of the invention. The disclosure shall also identify any publication, on sale or public use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to DOE, the Recipient will promptly notify DOE of the acceptance of any manuscript describing the invention for publication or of any on sale or public use planned by the Recipient.

(2) The Recipient will elect in writing whether or not to retain title to any such invention by notifying DOE within two years of disclosure to DOE. However, in any case where publication, on sale, or public use has initiated the oneyear statutory period wherein valid patent protection can still be obtained in the U.S., the period for election of title may be shortened by the agency to a date that is no more than 60 days prior to the end of the statutory period.

(3) The Recipient will file its initial patent application on an invention to which it elects to retain title within one year after election of title or, if earlier, prior to the end of any statutory period wherein valid patent protection can be obtained in the U.S. after a publication, on sale, or public use. The Recipient will file patent applications in additional countries or international patent offices within either ten months of the corresponding initial patent application, or six months from the date when permission is granted by the Commissioner of Patents and Trademarks to file foreign patent applications when such filing has been prohibited by a Secrecy Order.

(4) Requests for extension of the time for disclosure to DOE, election, and filing under subparagraphs (c)(1), (2), and (3) of this clause may, at the discretion of DOE, be granted.

(d) Conditions When the Government May Obtain Title

The Recipient will convey to DOE, upon written request, title to any subject invention:

(1) If the Recipient fails to disclose or elect the subject invention within the times specified in paragraph (c) of this patent rights clause, or elects not to retain title; provided that DOE may only request title within 60 days after learning of the failure of the Recipient to disclose or elect within the specified times;

(2) In those countries in which the Recipient fails to file patent applications within the times specified in paragraph (c) of this Patent Rights clause; provided, however, that if the Recipient has filed a patent application in a country after the times specified in paragraph (c) of this Patent Rights clause, but prior to its receipt of the written request of DOE, the Recipient shall continue to retain title in that country; or

(3) In any country in which the Recipient decides not to continue the prosecution of any application for, to pay the maintenance fees on, or defend in a reexamination or opposition proceeding on, a patent on a subject invention.

(e) Minimum Rights to Recipient and Protection of the Recipient Right To File

(1) The Recipient will retain a non-exclusive royalty-free license throughout the world in each subject invention to which the Government obtains title, except if the Recipient fails to disclose the subject invention within the times specified in paragraph (c) of this Patent Rights clause. The Recipient's license extends to its domestic subsidiaries and affiliates, if any, within the corporate structure of which the Recipient is a party and includes the right to grant

sublicenses of the same scope of the extent the Recipient was legally obligated to do so at the time the award was awarded. The license is transferable only with the approval of DOE except when transferred to the successor of that part of the Recipient's business to which the invention pertains.

(2) The Recipient's domestic license may be revoked or modified by DOE to the extent necessary to achieve expeditious practical application of the subject invention pursuant to an application for an exclusive license submitted in accordance with applicable provisions at 37 CFR part 404 and the agency's licensing regulation, if any. This license will not be revoked in that field of use or the geographical areas in which the Recipient has achieved practical application and continues to make the benefits of the invention reasonably accessible to the public. The license in any foreign country may be revoked or modified at discretion of the funding Federal agency to the extent the Recipient, its licensees, or its domestic subsidiaries or affiliates have failed to achieve practical application in that foreign country.

(3) Before revocation or modification of the license, the funding Federal agency will furnish the Recipient a written notice of its intention to revoke or modify the license, and the Recipient will be allowed thirty days (or such other time as may be authorized by DOE for good cause shown by the Recipient) after the notice to show cause why the license should not be revoked or modified. The Recipient has the right to appeal, in accordance with applicable regulations in 37 CFR part 404 and the agency's licensing regulations, if any, concerning the licensing of Government-owned inventions, any decision concerning the revocation or modification of its license.

(f) Recipient Action To Protect Government's Interest

(1) The Recipient agrees to execute or to have executed and promptly deliver to DOE all instruments necessary to:

(i) Establish or confirm the rights the Government has throughout the world in those subject inventions for which the Recipient retains title; and

(ii) Convey title to DOE when requested under paragraph (d) of this Patent Rights clause, and to enable the government to obtain patent protection throughout the world in that subject invention.

(2) The Recipient agrees to require, by written agreement, its employees, other than clerical and non-technical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the Recipient each subject invention made under this award in order that the Recipient can comply with the disclosure provisions of paragraph (c) of this Patent Rights clause, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. The disclosure format should require, as a minimum, the information requested by paragraph (c)(1) of this Patent Rights clause. The Recipient shall instruct such employees through the employee agreements or other suitable educational programs on the importance of reporting inventions in sufficient time to permit the filing of patent applications prior to U.S. or foreign statutory bars.

(3) The Recipient will notify DOE of any decision not to continue prosecution of a patent application, pay maintenance fees, or defend in a reexamination or opposition proceeding on a patent, in any country, not less than 30 days before the expiration of the response period required by the relevant patent office.

(4) The Recipient agrees to include, within the specification of any U.S. patent application and any patent issuing thereon covering a subject invention, the following statement: ``This invention was made with Government support under (identify the award) awarded by (identify DOE). The Government has certain rights in this invention."

(g) Subaward/Contract

(1) The Recipient will include this Patent Rights clause, suitably modified to identify the parties, in all subawards/contracts, regardless of tier, for experimental, developmental or research work to be performed by a small business firm or nonprofit organization. The subrecipient/contractor will retain all rights provided for the Recipient in this Patent Rights clause, and the Recipient will not, as part of the consideration for awarding the subcontract, obtain rights in the subcontractors' subject inventions.

(2) The Recipient will include in all other subawards/contracts, regardless of tier, for experimental, developmental or research work, the patent rights clause required by 10 CFR 600.325(c).

(3) In the case of subawards/contracts at any tier, DOE, the Recipient, and the subrecipient/contractor agree that the mutual obligations of the parties created by this clause constitute a contract between the subrecipient/contractor and DOE with respect to those matters covered by the clause.

(h) Reporting on Utilization of Subject Inventions

The Recipient agrees to submit on request periodic reports no more frequently than annually on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the Recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the Recipient and such other data and information as DOE may reasonably specify. The Recipient also agrees to provide additional reports in connection with any march-in proceeding undertaken by DOE in accordance with paragraph (j) of this Patent Rights clause. As required by 35 U.S.C. 202(c)(5), DOE agrees it will not disclose such information to persons outside the Government without the permission of the Recipient.

(i) Preference for United States Industry.

Notwithstanding any other provision of this Patent Rights clause, the Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the U.S. unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the U.S. However, in individual cases, the requirement for such an agreement may be waived by DOE upon a showing by the Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the U.S. or that under the circumstances domestic manufacture is not commercially feasible.

(j) March-in-Rights

The Recipient agrees that with respect to any subject invention in which it has acquired title, DOE has the right in accordance with procedures at 37 CFR 401.6 and any supplemental regulations of the Agency to require the Recipient, an assignee or exclusive licensee of a subject invention to grant a non-exclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances and if the Recipient, assignee, or exclusive licensee refuses such a request, DOE has the right to grant such a license itself if DOE determines that:

(1) Such action is necessary because the Recipient or assignee has not taken or is not expected to take within a reasonable time, effective steps to achieve practical application of the subject invention in such field of use;

(2) Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Recipient, assignee, or their licensees;

(3) Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, assignee, or licensee; or

(4) Such action is necessary because the agreement required by paragraph (i) of this Patent Rights clause has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the U.S. is in breach of such agreement.

(k) Special Provisions for Awards With Nonprofit Organizations

If the Recipient is a nonprofit organization, it agrees that:

(1) Rights to a subject invention in the U.S. may not be assigned without the approval of DOE, except where such assignment is made to an organization which has as one of its primary functions the management of inventions, provided that such assignee will be subject to the same provisions as the Recipient;

(2) The Recipient will share royalties collected on a subject invention with the inventor, including Federal employee co-inventors (when DOE deems it appropriate) when the subject invention is assigned in accordance with 35 U.S.C. 202(e) and 37 CFR 401.10;

(3) The balance of any royalties or income earned by the Recipient with respect to subject inventions, after payment of expenses (including payments to inventors) incidental to the administration of subject inventions, will be utilized for the support of scientific or engineering research or education; and

(4) It will make efforts that are reasonable under the circumstances to attract licensees of subject inventions that are small business firms and that it will give preference to a small business firm if the Recipient determines that the small business firm has a plan or proposal for marketing the invention which, if executed, is equally likely to bring the invention to practical application as any plans or proposals from applicants that are not small business firms; provided that the Recipient is also satisfied that the small business firm has the capability and resources to carry

out its plan or proposal. The decision whether to give a preference in any specific case will be at the discretion of the Recipient. However, the Recipient agrees that the Secretary of Commerce may review the Recipient's licensing program and decisions regarding small business applicants, and the Recipient will negotiate changes to its licensing policies, procedures or practices with the Secretary when the Secretary's review discloses that the Recipient could take reasonable steps to implement more effectively the requirements of this paragraph (k)(4).

(l) Communications

All communications required by this Patent Rights clause should be sent to the DOE Patent Counsel address listed in the Award Document.

(m) Electronic Filing

Unless otherwise Specified in the award, the information identified in paragraphs (f)(2) and (f)(3) may be electronically filed.

[End of clause]

Attachment # 3

DOE F 4600.2
(05/06)
All Other Editions Are Obsolete

U.S. Department of Energy
FEDERAL ASSISTANCE REPORTING CHECKLIST AND INSTRUCTIONS

1. Identification Number: DE - FC36 - 07GO17025.A000		2. Program/Project Title: El Sobrante Ethanol Biorefinery		
3. Recipient: BlueFire Ethanol, Inc.				
4. Reporting Requirements:		Frequency	No. of Copies	Address
A. MANAGEMENT REPORTING			Upload one copy of each report to the addresses identified in the next column	https://www.eere-pmc.energy.gov/SubmitReports.aspx
☑ Progress Report		Q		
☑ Special Status Report (see special instructions)		A		
B. SCIENTIFIC/TECHNICAL REPORTING (Reports/Products must be submitted with appropriate DOE F 241. The forms are available at www.osti.gov/elink)				
Report/Product	Form			
☑ Final Scientific Report	DOE F 241.3	F		http://www.osti.gov/elink-2413
☑ Conference papers/proceedings*	DOE F 241.3	A		https://www.eere-pmc.energy.gov/SubmitReports.aspx
☐ Software/Manual	DOE F 241.4			http://www.osti.gov/estsc/241-4pre.jsp
☐ Other (see special instructions)	DOE F 241.3			
** Scientific and technical conferences only*				
C. FINANCIAL REPORTING				
☑ SF-269, Financial Status Report		F Q		https://www.eere-pmc.energy.gov/SubmitReports.aspx
☐ SF-269A, Financial Status Report (short form)				
☐ SF-272, Federal Cash Transaction Report				
D. CLOSEOUT REPORTING				
☑ Patent Certification		F		https://www.eere-pmc.energy.gov/SubmitReports.aspx
☑ Property Certification		F		
☐ Other (see Special Instructions)				
E. OTHER REPORTING				
☑ Annual Indirect Cost Proposal		Y		
☐ Annual Inventory of Federally Owned Property, If Any				
☑ Other (see special instructions)		A		

FREQUENCY CODES AND DUE DATES:

A - Within 5 calendar days after events or as specified.

F - Final; 90 calendar days after expiration or termination of the award.

Y - Yearly; 90 days after the end of the reporting period.

S - Semiannually; within 30 days after end of the reporting period.

Q - Quarterly; within 30 days after end of the reporting period.

5. Special Instructions: The forms identified in the checklist are available at http://grants.pr.doe.gov.

Management and Other Reporting:
1) A Project Management Plan (PMP) must be developed and submitted to the DOE Project Officer thirty (30) days after award and must be updated and resubmitted annually. The PMP template is attached. The electronic template will be forwarded to the Recipient after award.
2) The Biomass Program's Quarterly Template must be used for Quarterly Report submissions and is attached. The electronic template will be forwarded to the Recipient after award.
3) A Monthly Project Status Report must be submitted to the DOE Project Officer within 10 days after the end of each month. The electronic template for the monthly report will be forwarded to the Recipient after award.
4) The Risk Mitigation Plan must be updated at least quarterly and sent to the DOE Project Officer within thirty (30) days of the end of the quarter.

Federal Assistance Reporting Instructions (05/06)

A. MANAGEMENT REPORTING

Progress Report

The Progress Report must provide a concise narrative assessment of the status of work and include the following information and any other information identified under Special Instructions on the Federal Assistance Reporting Checklist:

1. The DOE award number and name of the recipient.

2. The project title and name of the project director/principal investigator.

3. Date of report and period covered by the report.

4. A comparison of the actual accomplishments with the goals and objectives established for the period and reasons why the established goals were not met.

5. A discussion of what was accomplished under these goals during this reporting period, including major activities, significant results, major findings or conclusions, key outcomes or other achievements. This section should not contain any proprietary data or other information not subject to public release. If such information is important to reporting progress, do not include the information, but include a note in the report advising the reader to contact the Principal Investigator or the Project Director for further information.

6. Cost Status. Show approved budget by budget period and actual costs incurred. If cost sharing is required break out by DOE share, recipient share, and total costs.

7. Schedule Status. List milestones, anticipated completion dates and actual completion dates. If you submitted a project management plan with your application, you must use this plan to report schedule and budget variance. You may use your own project management system to provide this information.

8. Any changes in approach or aims and reasons for change. Remember significant changes to the objectives and scope require prior approval by the contracting officer.

9. Actual or anticipated problems or delays and actions taken or planned to resolve them.

10. Any absence or changes of key personnel or changes in consortium/teaming arrangement.

11. A description of any product produced or technology transfer activities accomplished during this reporting period, such as:

    A. Publications (list journal name, volume, issue); conference papers; or other public releases of results. Attach or send copies of public releases to the DOE Project Officer identified in Block 11 of the Notice of Financial Assistance Award.

    B. Web site or other Internet sites that reflect the results of this project.

C. Networks or collaborations fostered.

D. Technologies/Techniques.

E. Inventions/Patent Applications.

F. Other products, such as data or databases, physical collections, audio or video, software or netware, models, educational aid or curricula, instruments or equipment.

Special Status Report

The recipient must report the following events as soon as possible after they occur. Submit reports by e-mail to the DOE Project Officer identified in Block 11 of the Notice of Financial Assistance Award (NFAA):

1. Developments that have a significant favorable impact on the project.

2. Problems, delays, or adverse conditions which materially impair the recipient's ability to meet the objectives of the award or which may require DOE to respond to questions relating to such events from the public. For example, the recipient must report any of the following incidents and include the anticipated impact and remedial action to be taken to correct or resolve the problem/condition:

   a. Any single fatality or injuries requiring hospitalization of five or more individuals.

   b. Any significant environmental permit violation.

   c. Any verbal or written Notice of Violation of any Environmental, Safety, and Health statutes or regulations.

   d. Any incident which causes a significant process or hazard control system failure.

   e. Any event which is anticipated to cause a significant schedule slippage or cost increase.

   f. Any damage to Government-owned equipment valued in excess of $50,000.

   g. Any other incident that has the potential for high visibility in the media.

B. SCIENTIFIC/TECHNICAL REPORTS

Final Scientific/Technical Report

Content. The final scientific/technical report must include the following information and any other information identified under Special Instructions on the Federal Assistance Reporting Checklist:

1. Identify the DOE award number; name of recipient; project title; name of project director/principal investigator; and consortium/teaming members.

2. Display prominently on the cover of the report any authorized distribution limitation notices, such as patentable material or protected data. Reports delivered without such notices may be deemed to have been furnished with unlimited rights, and the Government assumes no liability for the disclosure, use or reproduction of such reports.

3. Provide an executive summary, which includes a discussion of 1) how the research adds to the understanding of the area investigated; 2) the technical effectiveness and economic feasibility of the methods or techniques investigated or demonstrated; or 3) how the project is otherwise of benefit to the public. The discussion should be a minimum of one paragraph and written in terms understandable by an educated layman.

4. Provide a comparison of the actual accomplishments with the goals and objectives of the project

5. Summarize project activities for the entire period of funding, including original hypotheses, approaches used, problems encountered and departure from planned methodology, and an assessment of their impact on the project results. Include, if applicable, facts, figures, analyses, and assumptions used during the life of the project to support the conclusions.

6. Identify products developed under the award and technology transfer activities, such as:

   a. Publications (list journal name, volume, issue), conference papers, or other public releases of results. If not provided previously, attach or send copies of any public releases to the DOE Project Officer identified in Block 11 of the Notice of Financial Assistance Award;

   b. Web site or other Internet sites that reflect the results of this project;

   c. Networks or collaborations fostered;

   d. Technologies/Techniques;

   e. Inventions/Patent Applications, licensing agreements; and

   f. Other products, such as data or databases, physical collections, audio or video, software or netware, models, educational aid or curricula, instruments or equipment.

7. For projects involving computer modeling, provide the following information with the final report:

   a. Model description, key assumptions, version, source and intended use;

   b. Performance criteria for the model related to the intended use;

   c. Test results to demonstrate the model performance criteria were met (e.g., code verification/validation, sensitivity analyses, history matching with lab or field data, as appropriate);

   d. Theory behind the model, expressed in non-mathematical terms;

   e. Mathematics to be used, including formulas and calculation methods;

f. Whether or not the theory and mathematical algorithms were peer reviewed, and, if so, include a summary of theoretical strengths and weaknesses;

g. Hardware requirements; and

h. Documentation (e.g., users guide, model code).

Electronic Submission. The final scientific/technical report must be submitted electronically via the DOE Energy Link System (E-Link) at http://www.osti.gov/elink-2413.

Electronic Format. Reports must be submitted in the ADOBE PORTABLE DOCUMENT FORMAT (PDF) and be one integrated PDF file that contains all text, tables, diagrams, photographs, schematic, graphs, and charts. Materials, such as prints, videos, and books, that are essential to the report but cannot be submitted electronically, should be sent to the DOE Award Administrator at the address listed in Block 12 of the Notice of Financial Assistance Award.

Submittal Form. The report must be accompanied by a completed electronic version of DOE Form 241.3, "U.S. Department of Energy (DOE), Announcement of Scientific and Technical Information (STI)." You can complete, upload, and submit the DOE F.241.3 online via E-Link. You are encouraged not to submit patentable material or protected data in these reports, but if there is such material or data in the report, you must: (1) clearly identify patentable or protected data on each page of the report; (2) identify such material on the cover of the report; and (3) mark the appropriate block in Section K of the DOE F 241.3. Reports must not contain any limited rights data (proprietary data), classified information, information subject to export control classification, or other information not subject to release. Protected data is specific technical data, first produced in the performance of the award that is protected from public release for a period of time by the terms of the award agreement.

Conference Papers/Proceedings

Content. The recipient must submit a copy of any conference papers/proceedings, with the following information: (1) Name of conference; (2) Location of conference; (3) Date of conference; and (4) Conference sponsor.

Electronic Submission. Scientific/technical conference paper/proceedings must be submitted electronically via the DOE Energy Link System (E-Link) at http://www.osti.gov/elink-2413. Non-scientific/technical conference papers/proceedings must be sent to the URL listed on the Reporting Checklist.

Electronic Format. Conference papers/proceedings must be submitted in the ADOBE PORTABLE DOCUMENT FORMAT (PDF) and be one integrated PDF file that contains all text, tables, diagrams, photographs, schematic, graphs, and charts. If the proceedings cannot be submitted electronically, they should be sent to the DOE Award Administrator at the address listed in Block 12 of the Notice of Financial Assistance Award.

Submittal Form. Scientific/technical conference papers/proceedings must be accompanied by a completed DOE Form 241.3. The form and instructions are available on E-Link at http://www.osti.gov/elink-2413. This form is not required for non-scientific or non-technical conference papers or proceedings.

Software/Manual

Content. Unless otherwise specified in the award, the following must be delivered: source code, the executable object code and the minimum support documentation needed by a competent user to understand and use the software and to be able to modify the software in subsequent development efforts.

Electronic Submission. Submissions may be submitted electronically via the DOE Energy Link System (E-Link) at http://www.osti.gov/estsc/241-4pre.jsp

Energy Science and Technology Software Center
P.O. Box 1020
Oak Ridge, TN 37831

Submittal Form. Each software deliverable and its manual must be accompanied by a completed DOE Form 241.4 "Announcement of U.S. Department of Energy Computer Software." The form and instructions are available on E-Link at http://www.osti.gov/estsc//241-4pre.jsp.

C. FINANCIAL REPORTING

Recipients must complete the financial reports identified on the Reporting Checklist in accordance with the report instructions. These standard forms are available at http://www.whitehouse.gov/omb/grants/index.html. Fillable forms are available at http://grants.pr.doe.gov.

D. CLOSEOUT REPORTS

Final Invention and Patent Report

The recipient must provide a DOE Form 2050.11 , "PATENT CERTIFICATION." This form is available at http://www.directives.doe.gov/pdfs/forms/2050-11.pdf and http://grants.pr.doe.gov.

Property Certification

The recipient must provide the Property Certification, including the required inventories of non-exempt property, located at http://grants.pr.doe.gov.

E. OTHER REPORTING

Annual Indirect Cost Proposal and Reconciliation

Requirement. In accordance with the applicable cost principles, the recipient must submit an annual indirect cost proposal, reconciled to its financial statements, within six months after the close of the fiscal year, unless the award is based on a predetermined or fixed indirect rate (s), or a fixed amount for indirect facilities and administration (F&A) costs.

Cognizant Agency. The recipient must submit its annual indirect cost proposal directly to the cognizant agency for negotiating and approving indirect costs. If the DOE awarding office is the cognizant agency, submit the annual indirect cost proposal to the DOE Award Administrator identified in Block 12 of the Notice of Financial Assistance Award.

Annual Inventory of Federally Owned Property

Requirement. If at any time during the award the recipient is provided with Government-furnished property or aquires property with project funds and the award specifies that the property vests in the Federal Government (i.e. federally owned property), the recipient must submit an annual inventory of this property to the DOE Award Administrator identified in Block 12 of the Notice of Financial Assistance Award no later then October 30th of each calendar year, to cover an annual reporting period ending on the preceding September 30th.

Content of Inventory. The inventory must include a description of property, tag number, acquisition date, location of property, and acquisition cost, if purchased with project funds. The report must list all federally owned property, including property located at subcontractor's facilities or other locations.

A. PMP Project Information

OBP WBS		Title					
Contact Information	Name	Phone	Email	Program Element/Area		CID or Laboratory Designation	
HQ Technology Manager				Project Initiated (dd/mm/yy)		CPS Agreement #	
PMC Project Officer				Planned Project Completion Date (dd/mm/yyyy)		Program Value (B&R) Code	
PMC Project Monitor							
Company Contact or Lab Relationship Manager				Last Gate or Project Review (dd/mm/yy)		Status	
Principal Investigator				Next Anticipated Stage Gate or Project Review (mm/yy)		Overall Stage of Development	
Co-Principal Investigator (if applicable)				Performing Organization (Only Prime Recipient)		Funding Partner(s) [Any partner or subcontractor who provides cost share]	
Project Description (non proprietary)							
Summary of Project Objectives & Tasks (at the A, B, C, etc.level from Section C of PMP, non-proprietary)							
Annual Work Plan FY2008 (typically 1-4 paragraph lengths of text or about 1/2 to 3/4 page of text)							
Summary of Work to date (typically 2-6 paragraphs or about 1-2 pages of text)							

Prime Recipient (s) Name (First entry must match cells AI-AR:8)	Location (zipcode)	Total DOE Funds Obligated to date	Carryover of DOE funding into FY08 (if applicable)	FY08 DOE Spend plan	DOE FY Estimated Spending Plan (if applicable)				Current Approved Spend Plan Total	Comments/Issues
					FY09	FY10	FY11	FY12		

Subcontractors or Lab Partners										

Funding by task number at the major task level (A,B,C,D, etc.) as specified in section C below (columns E-H)		Total Funds to date		FY08 Total Spend plan (DOE & Cost Share)	Fiscal Year Estimated Spending Plan (if applicable, including Cost Share)				Current Approved Spend Plan Total	Comments/Issues
					FY09	FY10	FY11	FY12		

C. Project Plan with tasks, subtasks, milestones, deliverables, Go No/Go decision points and including performance requirements and metrics

Project WBS Number	Number of Task, Subtask, Milestone, Deliverable including Go No/Go Decision Points	Title - Tasks, Subtasks, Milestones, Deliverables including Go No/Go Decision Pts	*For milestones provide type*	Performer(s)	Program Pathway C Milestones Link	Start Date (Tasks, Subtasks Only)	Planned Completion Date (Tasks or Milestone)	Relationship to Pathway Milestone(s)	Development stage of task or subtask	Barriers Addressed (Use Barrier numbers from Appendix B to show Barriers Addressed. Separate multiple entries with	Task or Milestone Completion Criteria (to include cost and performance metrics)	Task or Milestone decription (as needed)

Provide budgets allocated for	$	Name	Description and Use
Any special facilities required for the project (Unique to your project)			
Equipment - Both capital & other needed for the project (over $5,000 and use for >1 yr)			
Other Items required for completing the project			

Insert Text File (Word) of Full SOW ►►		Insert Gantt Chart (or equivalent) ►►	

A. Quarterly Project Description & Analysis (FY08)

OBP WBS		Title						Select Current Reporting Period:	FY08_Q1
Contact Information	Name		Phone	Email	Program Element/Area		CID or Laboratory Designation		
HQ Technology Manager					Project Initiated (dd/mm/yy)		CPS Agreement #		
PMC Project Officer					Planned Project Completion Date		Program Value (B&R) Code		
PMC Project Monitor									
Company Contact or Lab Relationship Manager							Status		
Principal Investigator							Overall Stage of Development		
Co-Principal Investigator (if applicable)					Performing Organization (Only Prime Recipient)		Funding Partner(s) [Any partner or subcontractor who provides cost share]		
Project Description (non-proprietary)								Insert Text File (Word or Other) of Quarterly Report ►►	
For GO & NETL Use Only: DOE Project Officer Summary Analysis									
For Laboratory Relationship Managers (LRM) Use Only: LRM Summary Analysis									

C. Progress within tasks and milestones for reporting quarter

Project WBS number	Number of Task, Subtask, Milestone, Deliverable including Go No/Go Decision Points	Title - Tasks, Subtasks, Milestones, Deliverables including Go No/Go Decision Pts	For milestones provide type	Performer(s)	Status of Progress in Task or Milestone (G,Y,R)*	Start Date (Tasks, Subtasks Only)	Original Planned Completion Date (tasks and milestones)	Approved Updated Completion Date	% Completion Planned	% Actual Completion	Schedule Progress Factor	Earned Value	Task or Milestone Completion Criteria (to include cost and performance metrics)	Budget by Task (report for task level only, subtasks are not required) Original (baseline)	Approved Updated Budget	Actual (Amount spent to date per task)	Comments
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*G - On schedule, progress positive or work completed

R - Confirmed slippage or finish date at risk of slippage. Immediate mitigation or rectification required

Y- Issues with delivery or risk of slippage. Mitigation may be needed

STATEMENT OF PROJECT OBJECTIVES

BlueFire Ethanol, Inc.
El Sobrante Ethanol Biorefinery
Award 1

A. PROJECT OBJECTIVES

The purpose of this Cooperative Agreement is to prepare data and designs and obtain the necessary permits and other information needed to support a decision regarding whether to proceed, in a subsequent agreement, to jointly finance construction, commissioning and start-up of a commercial integrated bio-refinery to be located near El Sobrante, California. The proposed bio-refinery would convert 700 metric dry tonnes per day biomass to ethanol.

The project objectives for Award I are to advance the project thru the initial development and permitting areas so as to allow a successful demonstration of an integrated biorefinery system for the production of liquid transportation biofuels, as a substitute for petroleum-based feedstocks and products. The objectives include: the sitting and permitting of the ethanol biorefinery at an existing landfill; completion of detailed engineering design. Programmatic objectives include the following as measurable, definable Award I and Project Objectives.

1. Achieve completion of all governmental and regulatory permitting activities including, but not limited to:
   a. Completion of a NEPA analysis with a successful outcome/determination that in conjunction for California CEQA activities permits the project to move forward into construction.
   b. Completion of the filling and receipt of an ATC (Authority to Contract) from the South Coast Air Quality Management District.
   c. Completion of all site permitting and "Use Permit" activities and receive an appropriate land use designation from Riverside County.

2. Completion of all contractual issues with Waste Management including finalization of a site lease and feedstock contract.

3. Completion of all detailed engineering with MECS so as to received a +10/-5 % construction cost commitment,

4. Employ validated yield assumptions to help in completing detailed engineering.

B. PROJECT SCOPE

Tasks to be performed under Award 1 are targeted to those to enable the project to move forward. These activities will focus on permitting, regulatory activities and design engineering (in support of these tasks as well as to better establish actual construction costs). Specifically

tasks will be preformed that allows the project from a regional planning and zoning perspective including all enabling permits (Use Permit, Air Permit, and CEQA and NEPA compliance).

C. TASKS TO BE PERFORMED

Task C 1 Project Goals

- Achieve permitting objectives
- Finalize remaining project contracts and leases
- Engineering designs that lead to effective commercial sized operations;
- Finalize construction documents for a facility to produce the necessary process yields on a long-term basis to support pro forma revenues;
- Secure environmental permits on a timely basis;

Task C 2 Project Management and Reporting

Reports and other deliverables will be provided in accordance with the Federal Assistance Reporting Checklist following the instructions included therein. Fundamentally there will be documentation developed that will support each of the following 11 events. Completion of all will assure that documentable results will result that meet the Objectives in A above.

1. Permitting & Development – BlueFire will prepare and seek approval of all applicable permits for the project.

2. Assess various lots of expected feedstock from region that the facility will gather material from. These feedstocks will be analyzed both for the initial sugar conversion potential in calculating yields and for setting the critical variables in the BlueFire process. This analysis will also identify the optimum feedstock mix (i.e. % green waste vs. % wood waste) that will be used to finalize the feedstock specifications for the feedstock supply contract with WM. As available, feedstock will also be run at various vendor's testing facilities over a wide range of operating conditions attempting to mimic actual operating conditions expected at commercial scale to refine process engineering design for the Project.

3. Site Constructability Analysis (EPC) – Site planning and review of available infrastructure and services will be conducted to refine construction cost estimate and gain information to be used to develop various site plans for permitting and construction.

4. EPC Contractual Agreements – Discussions with preferred engineers, constructors, operators and major equipment vendors will continue to finalize specific contractual and working arrangements with parties and develop cohesive team for the design, construction and operation of the Project.