

TECHNOLOGY INVESTMENT AGREEMENT

Between

THE UNITED STATES DEPARTMENT OF ENERGY
Office of Energy Efficiency and Renewable Energy

Golden Field Office
1617 Cole Blvd.
Golden, CO 80401

And

POET Project LIBERTY, LLC
4615 N. Lewis Ave.
Sioux Falls, SD 57104

And

POET, LLC
4615 N. Lewis Ave.
Sioux Falls, SD 57104

CONCERNING

Funding to design, construct, build, and operate a processing plant as part of an integrated biorefinery near Emmetsburg, Iowa to produce primarily ethanol from Lignocellulose.

1. Agreement No.: DE-FO36-08GO18121
2. Amendment No.: A000
3. Budget Period: From: 10/1/2008 To: 9/30/2014
4. Project Period: From: 10/1/2008 To: 9/30/2014
5. Total Estimated Cost of the Project: \$193,836,713
6. Total Estimated Government Share of the Project: \$76,236,713
7. Total Estimated Recipient Share of the Project: \$117,600,000
8. Funds Obligated This Action: \$ 54,222,980
9. Funds Obligated Prior Actions: \$0
10. Total Government Funds Obligated: \$ 54,222,980
11. Authority: 42 U.S.C. 7256(g) and Section 932 of the Energy Policy Act of 2005
12. Appropriation Data: 05450.2008.31.200835.61000000.1004173

This Technology Investment Agreement, No. DE-FO36-08GO18121 (the "Agreement"), is entered into between the United States of America, acting by and through the United States Department of Energy ("DOE") and POET Project LIBERTY, LLC (the "Recipient"), and POET, LLC (the "Parent").

For POET Project LIBERTY, LLC

(Signature)

James Sturdevant, Director
POET Project LIBERTY, LLC

_____, 2008
(Date)

For POET, LLC

(Signature)

Dan Loveland, Director
POET, LLC
(Print Name, Title)

_____, 2008
(Date)

For The United States Department of Energy
(Golden Field Office)

(Signature)

James P. Damm, Contracting Officer
United States Department of Energy

_____, 2008

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PART I - GENERAL AND ADMINISTRATIVE INFORMATION

ARTICLE I. PURPOSE

The purpose of this Agreement is for DOE to provide to Recipient funding for final design, construction, Equipment, start-up, commissioning, and operational reporting of a plant capable of processing a minimum of 700 Dry Metric Tonnes per day of Lignocellulose to produce Ethanol Product that is integrated with Recipient's existing corn-based ethanol plant located near Emmetsburg, Iowa, (Recipient's Emmetsburg Plant) and for Recipient to use the operational data from the plant to make a commercially-reasonable decision (in Recipient's sole discretion) whether Recipient will Replicate the Core Technology used in the processing of the Lignocellulose (collectively defined as the "Project"). Recipient's decision not to Replicate the Core Technology in no way limits the rights of the Government or DOE to require Recipient to license the intellectual property as set forth under the intellectual property provisions, as set forth in Attachment B.

ARTICLE 2. BACKGROUND

- a. **Authority.** This Agreement is being entered into pursuant to the authorities of Section 932(d) of the Energy Policy Act of 2005, Pub. L. No 109-58, 119 Stat. 871 (the "Energy Policy Act"), codified as 42 U.S.C. 16232(d); and Section 1007 of the Energy Policy Act, 119 Stat. 932, codified at 42 U.S.C. 7256(g) and its implementing regulations, "Technology Investment Agreements," 10 CFR Part 603, issued May 9, 2006, 71 Fed. Reg. 27162. Pursuant to 42 U.S.C. 7256(g), DOE may enter into this Agreement subject to the same terms and conditions of 10 U.S.C. 2371 (other than subsections (b) and (f) of that section).
- b. **Application of 10 CFR Part 603.** Unless otherwise expressly provided herein, the provisions of 10 CFR Part 603, "Technology Investment Agreements," apply to this Agreement.
- c. **Funding Opportunity.** Pursuant to the Energy Policy Act, DOE issued Funding Opportunity Announcement DE-PS36-06GO96016 (the "FOA") on February 22, 2006, requesting applications for funding the commercialization of certain cellulosic ethanol technologies.
- d. **Submission and Selection of Application.** On August 10, 2006, Broin and Associates, Inc. (a wholly-owned subsidiary of Broin Companies, LLC) submitted to DOE an application for funding under the FOA. On February 13, 2007, as announced on February 28, 2007, DOE selected Broin and Associates, Inc. for negotiation of award.
- e. **Formation of Recipient as Special Purpose Entity.** On March 29, 2007, Broin Companies, LLC formally changed its name to POET, LLC ("Parent"). In connection with the Project, POET, LLC filed Articles of Organization with the Iowa Secretary of State on April 27, 2007, requesting creation of POET Project Liberty, LLC. On May 8, 2007, the Iowa Secretary of State issued a Certificate of Existence for POET Project Liberty, LLC as a limited liability company formed under the laws of the State of Iowa. On May 21, 2007, POET, LLC requested that the name of the applicant, Broin and Associates, Inc., be changed to POET Project Liberty, LLC, and that this agreement be executed with Recipient as the owner and operator of the Project.

ARTICLE 3. DEFINITIONS

Unless otherwise provided in this Agreement, the terms defined in 10 CFR § 600.3 and 10 CFR §§ 603.1205 through 603.1340 apply to this Agreement. In addition to terms defined elsewhere in this Agreement, the following definitions apply:

“Amendment” means a written document executed by the DOE Contracting Officer that changes one or more terms or conditions of this Agreement.

“Construction Authorization Review” is the final review, supported by input from the Independent Engineer and External Independent Review, upon which DOE will base its decision to release funds for commencement of Facility construction.

“Contractor” means those entities that will perform services in connection with the Project and for which DOE will reimburse a portion of their costs. Contractors for purposes of this Agreement are: POET Design and Construction, Inc.. This definition is not intended to limit Recipient’s ability or Recipient’s contractors’ ability to engage additional contractors and receive reimbursement from DOE for a portion of their costs.

“Core Technology” means the process of chemically pretreating, saccharifying and fermenting Lignocellulose to produce Ethanol Product, which excludes processes related to recovery, recycle or further processing of Ethanol Product that is produced from the process of chemically pretreating, saccharifying and fermenting Lignocellulose.

“Cost Share” means a portion of Project funds from non-Federal sources that are borne by the Recipient or non-Federal third parties on behalf of the Recipient, rather than by the Federal Government.

“DOE Contracting Officer” means the DOE official identified in Article 6.a. of this Agreement who is authorized to execute and administer this Agreement on behalf of DOE.

“DOE Patent Counsel” means the DOE official identified in Article 6.a. of this Agreement who is assisting the DOE Contracting Officer in the review and coordination of patents and data-related items.

“DOE Project Officer” means the DOE official identified in Article 6.b. of this Agreement who is assisting the DOE Contracting Officer and responsible for technical matters relating to this Agreement.

“Dry Metric Tonne” means a 1000 kilogram (approximately 2205 pounds) mass having essentially zero percent (0%) moisture as determined by proximate analysis.

“Equipment” means tangible property, other than Real Property or nonexpendable personal property, charged directly to the Agreement that has a useful life of more than one year and an acquisition cost of \$5,000 or more per unit.

“Ethanol Product” means gas, liquid and solid components formed in the process of chemically pretreating, saccharifying, and fermenting Lignocellulose to form ethanol as the primary fermentation product.

“External Independent Review” means the construction and project execution readiness review conducted by the Independent Engineer that will be used in the Construction Authorization Review by DOE.

“Facility” means the Equipment and related structure integrated with Recipient’s Emmetsburg Plant that is used to produce, recover and reprocess Ethanol Product in which the Ethanol Product is produced from Lignocellulose using Recipient’s Core Technology.

“Facility Substantial Completion” means that the Facility has been constructed and reasonable efforts have been made to complete start up, commissioning, and the Performance Test.

“Government Approval” is defined in Article 8.

“Government Fiscal Year” means October 1 through September 30.

“Government Insight” is defined in Article 8.

“Head of Contracting Activity” means a DOE official with senior management authority for this Agreement within one or more DOE organizational elements.

“Independent Engineer” means the engineering firm selected by DOE, currently R.W. Beck, Inc., to provide engineering verification of project progress and milestones as well as other expert advice.

“Intellectual Property” means patents, trademarks, copyrights, mask works, protected data, trade secrets, and other forms of comparable Property protected by Federal law and foreign counterparts.

“Lignocellulose” means biomass that is composed of one or more cellulose, hemicellulose, or lignin components.

“Material Adverse Effect” means a change, event, circumstance, occurrence, development, or state of facts that: (i) materially adversely affects the business, financial condition, assets, liabilities, or results of operations of the Project or Recipient; and (ii) materially adversely affects the ability of Recipient to complete the Project, but does not include any changes, events, circumstances, occurrences, developments, or state of facts that are attributable to DOE's actions or omissions.

“NEPA” means the National Environmental Policy Act, 42 U.S.C. 4321 *et seq.*

“Parties” means the entities executing this Agreement.

“Performance Measurement Criteria” means the standards by which the results of the Performance Test will be assessed, which will include, but not be limited to, specified operational data, yields, steady state operation period(s), throughput, capacity, and costs.

“Performance Test” means a period of operation after commissioning, not to exceed thirty (30) days, of the Facility, during which the Independent Engineer will observe the operation and resulting data generation for purposes of evaluating against the Performance Measurement Criteria.

“Program Income” means gross income earned by the Recipient or Contractor that is generated by a supported activity or earned as a direct result of this Agreement. Program Income includes but is not limited to: income from fees for performing services; the use or rental of Real Property, Equipment, or Supplies acquired under this Agreement; the sale of commodities or items fabricated under this

Agreement; and license fees and royalties on patents and copyrights. Interest earned on advances of Federal funds is not Program Income.

“Project” is defined in Article 1.

“Property” means Real Property, Equipment, supplies, and Intellectual Property, unless stated otherwise.

“Real Property” means land, including land improvements, structures and appurtenances thereto, but excluding movable machinery and Equipment.

“Replicate” or “Replication” means (i) the construction and operation of a plant that incorporates the use of Recipient’s Core Technology; or (ii) using commercially-reasonable efforts to license Recipient’s Core Technology to a third party.

“Schedule of Payments” is defined in Attachment E.

“Substantial Involvement” is defined in Article 8.

ARTICLE 4. EXECUTION

This Agreement, including all Attachments, constitutes the entire agreement of the Parties and supersedes all prior agreements, understandings, negotiations, and discussions among the Parties, whether oral or written, related to the purpose as described in Article 1. This Agreement may be revised only by written consent of the Parties.

ARTICLE 5. ORDER OF PRECEDENCE

In the event of any inconsistency between the terms of this Agreement and the Attachments, the inconsistency shall be resolved by giving precedence in the following order: (1) the Agreement, and (2) Attachments to the Agreement.

ARTICLE 6. AGREEMENT ADMINISTRATORS

a. Administration. Unless otherwise provided in this Agreement, approvals permitted or required to be made by DOE may be made only by the DOE Contracting Officer. Administrative and contractual matters under this Agreement shall be referred to the following representatives of the Parties:

DOE Contracting Officer: James P. Damm, (303) 275-4744, james.damm@go.doe.gov.

DOE Alternate Contracting Officer: Sara Wilson, (303) 275-4922, sara.wilson@go.doe.gov

DOE Grants and Agreements Specialist: Bob Kingsley, (303) 275-4796,
bob.kingsley@go.doe.gov

DOE Patent Counsel: Julia Moody, (303) 275-4867, julia.moody@go.doe.gov (for all questions regarding Intellectual Property matters)

Recipient Administrator: Jim Sturdevant, (605) 965-2368, james.sturdevant@poet.com

Parent Administrator: Dan Loveland, (605) 965-2288, dan.loveland@poet.com

b. Technical. Technical matters under this Agreement shall be referred to the following representatives:

DOE Project Officer: Chad Schell, (303) 275-4729, chad.schell@go.doe.gov

Recipient Project Manager: [REDACTED EXEMPTION 6]

c. Change of Designated Representative. Each party may change its representatives named in this Article by written notification to the other party.

PART II - PROJECT

ARTICLE 7. SCOPE OF AGREEMENT

a. Scope. Article 1 and Attachment A describe the overall vision for the Project, including the purpose, objectives, work to be performed, project plan, commercialization, and replication goals. Recipient will perform the design, build, operation, replication, and reporting tasks in accordance with this Scope.

b. Documentation. The Recipient must submit or otherwise provide all documentation required by Attachment C, Report Requirements.

c. Schedule of Payments. The Recipient or its designee shall be paid in accordance with the Schedule of Payments set forth in Attachment E and the procedures of Article 14.

ARTICLE 8. MANAGEMENT OF THE PROJECT

a. Responsibilities. DOE, Recipient, and Parent are bound to each other by a duty of good faith and best effort to achieve the goals of the Project. The responsibilities of the Parties are:

1. Recipient. The Recipient is responsible for the overall Project, including execution, technical and project management, reporting, financial and administrative matters.

2. Parent. Subject to f.6 of this Article, the Parent is responsible for providing to Recipient the resources and authority necessary to perform under this Agreement with respect to the Project.

3. DOE. DOE provides collaboration, participates in technical and project status meetings via telephone or in person, and reviews and approves the Annual Project Plan and invoices submitted for payment as appropriate and agreed to in Attachment E. Other DOE personnel or other authorized and agreed-upon representatives of DOE may also participate in technical and project status meetings via telephone or in person. DOE contractors shall sign a nondisclosure agreement with Recipient subject to the approval of DOE. DOE employees are subject to the provisions of the Trade Secrets Act (18 U.S.C. §1905).

b. Government Substantial Involvement. DOE shall be substantially involved in the Project, as more completely outlined in this Article. "Substantial Involvement" shall include DOE input to Recipient regarding the management, control, direction, and performance of the Project. Substantial Involvement shall also include disbursement of Federal funds pursuant to Project performance under this Agreement and termination of this Agreement or suspension of payments hereunder in

accordance with the terms of this Agreement. DOE will be engaged in an advisory capacity for work performed under this Agreement to maximize the likelihood that the Project is commercially successful and replicable. The National Renewable Energy Laboratory or other DOE National Laboratories may provide technical assistance to the Project. Such contractors shall sign nondisclosure agreements with the Recipient subject to the approval of DOE. Substantial Involvement by the Government includes "Government Approval" and "Government Insight" as set forth in subparagraphs (1) and (2) below.

1. Government Approval. "Government Approval" is defined as DOE providing authority to proceed and/or formal acceptance by DOE. For those circumstances in which Government Approval is required, Recipient shall submit all necessary documentation to the DOE Contracting Officer and the DOE Project Officer that such Officers may reasonably request prior to Government Approval being granted. Recipient shall be required to obtain Government Approval in the following situations:

- i. Annual Project Plan, provided for in Article 8.c.2., including but not limited to any change in plans that may result in a need for additional Federal funding;
- ii. Disbursements pursuant to Attachment E;
- iii. NEPA-related documents and compliance activities;
- iv. Selection of and changes to approved Engineering, Procurement, and Construction Management Contractor, provided for in Article 13; and
- v. Amendments pursuant to Article 8.d. below.

2. Government Insight. "Government Insight" is defined as attendance at procurement, design, construction, on-site or other meetings, reviews, tests, and reviewing documents from Recipient and/or Contractor(s). DOE may participate in these meetings, reviews, and tests, and may provide input and comment, but shall not have the right of approval except as set forth elsewhere in this Agreement. Recipient shall notify the DOE Project Officer of meetings, reviews, or tests, and provide such documents to the DOE Project Officer in sufficient time to permit Government Insight. The Government has retained an Independent Engineer to facilitate its insight into the Project. The Government's Independent Engineer has entered into a nondisclosure agreement and will be allowed the same access to Project information as is available to the Government.

3. DOE Attendance at Quarterly Project Management Meetings. At all times during the Project Period, the DOE Contracting Officer shall have the right to appoint one representative (the "DOE Representative"), and one additional person (the "DOE Consultant") to attend all of Recipient's quarterly project management meetings. The DOE Representative may be a different individual from time to time, as designated by the DOE Contracting Officer. The DOE Consultant, who may or may not be an employee of DOE, shall be designated by the DOE Contracting Officer, may be a different individual from time to time and will provide expertise and consulting services to the DOE Representative in areas of project finance, governance, and operations. Both the DOE Representative and the DOE Consultant may attend Recipient's quarterly project management meetings. At these meetings, the DOE Representative may participate in all discussions and deliberations of the managers but shall not have a formal vote on any matters. The DOE Representative and DOE Consultant shall

have no fiduciary duty to Recipient, its shareholders, or investors. The DOE Representative's sole responsibility will be to represent DOE's interests under this Agreement.

4. Receipt of Information. The DOE Representative and the DOE Consultant shall receive all information and materials provided to the Recipient's senior management in the quarterly project management meetings or otherwise concerning the affairs of the Project. Such materials shall be provided to the DOE Representative and the DOE Consultant at, or about, the same time such materials are delivered to Recipient's senior management. Further, the Recipient shall provide the DOE Representative with a copy of all agreements with and all materials made available to any third-party lenders pursuant to Article 19.b. If Recipient contemplates making material decisions with respect to the Project, otherwise than at the quarterly project management meetings, it shall provide reasonable advance notice of any such actions to DOE.

c. Project Review and Planning Process. The Recipient is responsible for establishing a schedule of meetings to be held no less frequently than monthly with the DOE Project Officer covering such matters as the DOE Project Officer may reasonably request. The Recipient shall notify the DOE Project Officer of the meeting schedule.

1. Work Breakdown Structure. Recipient shall follow the Work Breakdown Structure ("WBS") as submitted to DOE (Article 24) and/or any changes thereto subsequently agreed upon by the Parties.

2. Annual Project Plan and Review. Recipient will prepare and submit to the DOE Project Officer a draft Annual Project Plan ("Annual Project Plan") to be completed no later than 60 days following release of funds under this Agreement and 60 days before the end of each subsequent Government Fiscal Year thereafter. The Annual Project Plan shall provide a detailed schedule of activities for the upcoming year. Recipient shall use its commercially reasonable efforts to identify specific performance objectives, forecasted expenditures, and additional payments, if any. The Annual Project Plan shall reconcile all prior adjustments in the Project schedule, including revisions/modifications to the Schedule of Payments. The Recipient may modify milestones and forecast expenditures in the Annual Project Plan on a quarterly basis, and upon the approval by DOE. Recommendations for changes, revisions, or Amendments to this Agreement, which result from the Annual Review, shall be made in accordance with the provisions of Article 8.e. below.

d. Amendments.

1. Amendment Request. If, as a result of the meetings, Annual Review, Annual Project Plan, or decisions made during the annual planning process, Recipient concludes that a change in the Project Scope, Budget, and/or the Schedule of Payments (Attachment E) would be beneficial to program objectives, Recipient may submit a written request to amend this Agreement or its Attachments to the DOE Contracting Officer, with a copy to the DOE Project Officer. The request must provide justifications to support any changes to the Project Scope, Budget, and/or the Schedule of Payments (Attachment E), and detail the technical, environmental, chronological, and financial impact of the proposed changes to the Project. DOE is not obligated to pay for additional or revised payments until the Schedule of Payments (Attachment E) is formally revised by the DOE Contracting Officer and made part of this Agreement.

2. Amendment Approval. The DOE Contracting Officer is the only individual who may amend this Agreement or commit the Government to the expenditure of additional DOE funds. Any commitment by other than the Contracting Officer, either explicit or implied, is invalid. In the event that the Contracting Officer agrees to support a change to this Agreement and an Amendment to this Agreement is required, both parties agree to use best efforts to promptly execute an amendment in the time required to address the outstanding issue.

3. Administrative Amendments. The DOE Contracting Officer may unilaterally issue administrative amendments to this Agreement (e.g., changes in the paying office or appropriation data, changes to DOE or Recipient personnel identified in the Agreement, etc.). Recipient is not required to sign administrative amendments.

e. Notices to DOE. This section summarizes all notices that Recipient is required to give DOE pursuant to this Agreement.

1. Project Process Design. Recipient shall promptly provide notice to the DOE Project Officer of all proposed changes in Project Scope and changes in design, operation, or construction that require a change order to Recipient's engineering, procurement, and construction management ("EPCM") contract.

2. Default Under Loan or Debt Financing Agreements. Recipient shall give prompt notice to DOE of the existence of any default or event of default under any loan, revolving credit, debt financing, or similar agreement to which Recipient is a party.

3. Notice of Inability to Provide Cost Share. Recipient shall provide the notice required by Article 9.b. of this Agreement.

4. Notice of Equipment Removal. Recipient shall provide prompt notice to the DOE Contracting Officer of any removal of Equipment or other Property acquired under this Agreement from the Facility.

5. Notice of Contract Award. Recipient shall provide prompt notice of any contract with an award value in excess of \$1 million.

6. Notice of Environmental Changes: Recipient shall provide prompt notice to the DOE Contracting Officer of any actions or information that do not conform to the current NEPA determination.

f. Covenants of Recipient and Parent. The Recipient makes the following covenants:

1. Meetings. The Recipient shall allow the DOE Representative and the DOE Consultant the right to attend and actively participate in all discussions and deliberations of the quarterly project management meetings of Recipient.

2. Information. The Recipient shall provide the DOE Representative and the DOE Consultant all written materials outlined in Article 8.b.4. above. The Recipient shall at all times provide the DOE Representative with an up-to-date organizational chart of Recipient and its relationship to other related entities, including but not limited to the POET, LLC, as well as the reporting obligations of all quarterly meeting participants. The Recipient shall promptly comply with reasonable requests from the DOE Representative or DOE Project Officer for additional information or to schedule meetings or telephone conference calls.

3. Good Standing. During the term of this Agreement, Recipient will remain a limited liability company in good standing under its respective jurisdiction of incorporation and will remain duly qualified as a limited liability company to transact business in each jurisdiction in which such qualification is required.

4. Consideration of Interests in Addition to Shareholders' or Members' Interests. In discharging his or her duties to Recipient and in determining what he or she believes to be in the best interests of Recipient, a director, manager, or officer may, in addition to considering the effects of any action on shareholders or members, consider the following:

- i. The effects of the action on employees, suppliers, and customers of Recipient;
- ii. The effects of the action on communities and state in which Recipient operates; and
- iii. Any other factors that the director, manager, or officer considers pertinent.

5. Sale of Products Produced by the Project. Recipient agrees to promptly sell all commercial products produced by the Project in the ordinary course.

6. Assignments, Transfers, and Additional Actions. The Recipient shall obtain from POET, LLC, its affiliates and technology providers, all licenses, assignments, and transfers and whatever further items as may be necessary or desirable to have all authority to perform as required under this Agreement including authorities to make decisions regarding Replication, via a separate agreement. Parent will transfer or license to Recipient all of its assets, rights, and obligations, as may be necessary or desirable, to vest in Recipient the ability and authority to perform as required under this Agreement with respect to the Project including Replication. Upon transfer or license to Recipient of the necessary assets, rights, and obligations to carry out the Project to the satisfaction of the Contracting Officer, the Parties agree that POET, LLC is no longer a party to this Agreement but shall serve as a Contractor as defined in Article 3.

7. Insurance. During the term of this Agreement, Recipient shall maintain insurance on the Project in commercially reasonable amounts with reputable insurance companies.

8. Disposition of Property. Recipient agrees to promptly and fully comply with all aspects of Article 19.

PART III - FINANCIAL MATTERS

ARTICLE 9. COST SHARE

a. Total Estimated Project Cost. Total Estimated Project Cost is the sum of the Government Share and Recipient Share (each as defined below) of the estimated Project costs. The estimated cost share of each Party and total estimated cost are as follows:

Government Share	Recipient Share	Total Estimated Project Cost
\$76,236,713/39.3%	\$117,600,000/60.7%	\$ 193,836,713

b. Notice of Inability to Provide Cost Share. If Recipient discovers that it may be unable to provide at least 60% of the Total Estimated Project Cost, it shall, within five business days, provide written notification to the DOE Contracting Officer indicating whether it will continue or terminate the Project. If Recipient plans to continue the Project, the notification must describe how replacement Cost Share will be secured.

c. Maximum Government Percentage. Maximum DOE funding for the Project is \$76,236,713. This amount will be adjusted downward only if the total allowable Project costs are less than \$190,591,783 at the end of the Project Period. In no event will any individual or the cumulative disbursements of the Government Share ever exceed 40% of actual allowable expenditures on the Project.

d. Federal Funds. In no event may any portion of Recipient Share come from or be comprised of funding from any Federal source other than through Project revenue. This provision does not prohibit Recipient from obtaining a federal loan guarantee for this Project.

ARTICLE 10. MAXIMUM OBLIGATION

This Project will be funded by the Government in increments, subject to the conditions contained herein, and to the availability of appropriated funds. The maximum Government obligation to Recipient is limited to the amount shown on line 10, "Total Government Funds Obligated" on the cover page of this Agreement. Recipient has no right to Government funding beyond the maximum amount as set out in the "Total Government Funds Obligated" on line 10.

ARTICLE 11. FINANCIAL SYSTEM AND RECORDS

Recipient shall have and maintain an established accounting system which complies with Generally Accepted Accounting Principles ("GAAP"), and with the requirements of this Agreement, and shall ensure that appropriate arrangements have been made for receiving, distributing, and accounting for Federal funds and Recipient Cost Share, including any in-kind costs. Consistent with this, an acceptable accounting system will be one in which all funds, cash receipts, and disbursements are controlled and documented properly. Such records are subject to audit as set forth in Article 16. In the absence of an acceptable accounting system, no labor or indirect costs may be invoiced to DOE.

ARTICLE 12. INDEPENDENT ENGINEER

Pursuant to the scope of work of DOE's Independent Engineering Services contract with R.W. Beck, Inc., DE-AT36-07GO27305, (the "Independent Engineer"), the Independent Engineer shall conduct an External Independent Review ("EIR") prior to construction authorization, review Recipient's applications for payments, and verify and certify Recipient's progress to DOE. The Schedule of Payments allocated to various portions of the work as set forth in Attachment E shall be used as the basis for reviewing Recipient's applications for payments.

ARTICLE 13. ENGINEERING, PROCUREMENT, AND CONSTRUCTION MANAGEMENT (EPCM) CONTRACTOR

Notwithstanding any provisions of this Agreement to the contrary, no Government funds shall be disbursed to Recipient in connection with the Project until Recipient has retained an "EPCM" contractor for the Project satisfactory to DOE and on terms and conditions which would be expected to result from arms-length negotiations and which are reasonably acceptable to DOE, as evidenced by

DOE's review and approval of the terms and conditions prior to execution by the parties (the "EPCM Agreement"). No amendment may be made to the EPCM Agreement without the express written consent of the DOE Contracting Officer.

ARTICLE 14. PAYMENTS

a. **Obligation of Federal Funds.** All Federal funds obligated under this Agreement are payable through the Automated Clearing House and available to Recipient in the amounts and upon meeting the requirements contained in Attachment E and other conditions of this Agreement including but not limited to Article 24.

b. **Requests for Payment.** Requests for payments must be made electronically through DOE's Oak Ridge Financial Service Center Vendor Inquiry Payment Electronic Reporting System ("VIPERS"). To access and use VIPERS, Recipient must enroll at <https://finweb.oro.doe.gov/vipers.htm>. Detailed instructions on how to enroll are provided on that site.

c. **Payments.**

1. **Payment Authorization.** Utilizing VIPERS, Recipient shall provide DOE a SF-270 (Request for Advance or Reimbursement) for each requested disbursement. In addition, Recipient shall provide a SF-270 and supporting documentation describing achievement of the performance metrics, as defined in Attachment E for each requested disbursement, to the DOE Project Officer and the Independent Engineer. The Independent Engineer must certify to DOE that the actual performance metrics have been achieved prior to any disbursements. DOE shall make payments in the form of disbursements in the amounts and at the times set forth in Attachment E.

2. **Partial Payment Adjustment.** If the Independent Engineer finds invoiced expenses do not meet the Eligible Activity Reimbursement ("EAR") definitions referenced in Attachment E, partial payment will be made by DOE reflecting the actual performance metrics achieved. In no event will any individual or the cumulative disbursements of the Government Share ever exceed 40% of actual allowable expenditures on the Project.

3. **Liquidated Damages upon Failure to Provide Operation Reports.** If DOE has not received and accepted any of the three Operation Reports (as described in Clause A of Attachment C to this Agreement) within 60 days of the date such report is due, Recipient shall pay liquidated damages to DOE [REDACTED EXEMPTION 4]

d. **Payment Suspension.** DOE may suspend any payments under this Agreement in accordance with 10 CFR § 600.312(g).

e. **Payment Disputes.** In the event of any dispute over payments pursuant to this Article 14, the Parties agree to refer any such dispute to the Head of Contracting Activity, Golden Field Office, and the Director, POET Project LIBERTY, LLC, respectively, and to make a good-faith effort to resolve any such dispute. If such dispute is not resolved as a result of these efforts, the Head of Contracting Activity shall issue a final decision regarding such dispute.

ARTICLE 15. ALLOWABLE COSTS AND PROJECT COSTS

- a. Allowable Cost Principles. Recipient's financial management system must provide, at a minimum, that Federal funds and funds counted as Recipient's Cost Share will be used only for costs that:
1. A reasonable and prudent person would incur in carrying out this Agreement. Generally, elements of cost that appropriately are charged are those contained under GAAP;
 2. Are consistent with the purposes stated in the governing Congressional authorizations and appropriations; and
 3. Do not violate the prohibition on Recipient receiving a fee or profit under 10 CFR § 603.230.
- b. Project Costs. Notwithstanding the foregoing, in no event shall Project costs include any expenditures for interests or options in land, or any costs or expenses associated with research and development activities associated with the technologies utilized in the Project.
- c. Indirect Costs. Recipient is required to use commercially reasonable cost rates to accumulate and report costs under this Agreement. This includes both provisional and final rates that are approved by the DOE Contracting Officer up until the time that this Agreement is closed out.

ARTICLE 16. AUDITS

- a. Examination and Audit. The Recipient's and any Contractor's financial records are subject to examination or audit on behalf of the Government.
- b. Annual Audits. Recipient shall:
1. Have annual audits by an independent certified public accountant ("CPA"), in addition to any award-specific audits as required by the DOE Contracting Officer;
 2. Ensure that an independent CPA will perform required audits as discussed in 10 CFR § 603.650;
 3. Have an audit completed and provide to DOE audited and certified financial statements for the year ended December 31, 2008, and every year thereafter on or before 120 days following the end of such year; and
 4. The audits shall be conducted under Generally Accepted Auditing Standards.
- c. Other Audit Requirements.
1. The audit shall provide reasonable assurance of Recipient's compliance with Agreement terms that have a direct and material effect on the Project.
 2. The allocable portion of the costs of any audits will be reimbursable under this Agreement. These costs may be direct charges or allocated indirect costs, consistent with Recipient's accounting system and practices.

3. If the independent CPA identifies the need for corrective action relating to Recipient's accounting system and practices, DOE has the right to require Recipient, based on independent CPA findings, to take corrective action and, if corrective action is not taken, that the DOE Contracting Officer has recourse to any of the remedies for noncompliance identified in 10 CFR § 600.352(a).

4. The independent CPA must submit audit reports directly to the DOE Contracting Officer.

5. The independent CPA must retain working papers for a period of at least three years after the final payment, unless the working papers relate to an audit whose findings are not fully resolved within that period or to an unresolved claim or dispute (in which case, the independent CPA must keep the working papers until the matter is resolved and final action taken).

ARTICLE 17. USE OF PROGRAM INCOME

a. Program Income earned during the Project Period may be retained by the Recipient and added to the funds committed to the Agreement and used to further eligible Project objectives.

b. The Recipient may retain Program Income earned:

1. From license fees and royalties for copyrighted material, patents, patent applications, trademarks, and inventions produced under the Agreement.

2. After the end of the Project Period.

c. Prior to completion of the Performance Test, Recipient shall not declare or permit any dividend or similar distribution of any Program Income to any shareholder or equity holder of Recipient without the consent of the Contracting Officer.

ARTICLE 18. RECOGNITION OF PRE-AWARD COSTS

Pre-award costs incurred on or after February 13, 2007 may be part of cost share and eligible for reimbursement under Attachment E, provided such costs are allowable in accordance with the cost principles in Article 15 – Allowable Costs and Project Costs. See DOE Authorization letter dated September 30, 2008.

PART IV - ADMINISTRATIVE REQUIREMENTS

ARTICLE 19. TITLE AND DISPOSITION OF PROPERTY

a. Title. Title to the Property acquired by the Recipient in whole or in part with funds received under this Agreement shall vest in the Recipient subject to the conditions of this Article 19 and the provisions of 10 CFR §§ 603.680 and 600.321, unless otherwise provided. Under no circumstances, unless the DOE Contracting Officer affirmatively so elects, shall ownership of or legal title to the Property vest, by default or otherwise, in DOE. For purposes of this Article 19, the term "Property," as defined in Article 3, does not include "Intellectual Property," as defined in Article 3, the disposition of which is provided for in Article 20 of this Agreement.

b. Encumbrance. At no time shall Recipient encumber the Property, in whole or in part, without the prior written agreement of the DOE Contracting Officer. Recipient may request, however, that

DOE permit an encumbrance on or subordination of DOE's property interest hereunder. Such consent will not be unreasonably withheld by the Contracting Officer. Prior to considering such request, Recipient shall provide DOE the following:

- (i) A detailed financing plan acceptable to DOE;
- (ii) A commitment letter from an independent third-party lender providing for debt financing exclusively for the Project consistent with Recipient's financing plan; and
- (iii) Representation from the third-party lender that the subordination of DOE's property interests is a condition of making the loan.

Following receipt of the foregoing, and to the extent the DOE Contracting Officer determines, in his or her sole and absolute discretion, to permit the Recipient to grant an encumbrance on the Property in accordance with this Article 19 Section b, DOE hereby agrees (i) that its interest in the Property may be encumbered, at the sole discretion of the DOE (Contracting Officer), either *pari passu* or subordinate to such lender's interest in the Property, and (ii) to execute and deliver, at Recipient's expense, such documents and agreements as may be reasonably requested by Recipient or such lender to evidence such arrangement, provided that such documents and agreements are reasonably acceptable to DOE. In the case of subordination, the Recipient will seek to negotiate with the lender a covenant that would prioritize repayment of lender's debt in the event of default first with assets that were not purchased, in whole or in part, with funds received under this Agreement.

c. Use. The Property must be used for the authorized purposes of the Project until the Property is no longer needed for the purposes of the Project, whether or not the Project continues to be supported by Federal funds. Pursuant to 10 CFR § 600.321(e) or its successor, the Recipient must make the Property available for use by other projects or programs if such other use does not interfere with the work for which the Property was originally acquired.

d. Disposition. DOE retains an interest in the Property with a current fair market value of \$5,000 or more. For purposes of this Agreement, DOE's property interest shall be a percentage interest in the current fair market value of the Property equal to the Government Share percentage of the final project cost subject to the provisions set forth in Article 9 of this Agreement. At such time as the Property is no longer needed for the authorized purposes of the Project, and prior to the Recipient's intended sale, transfer, abandonment, conversion or assignment of such Property, the Recipient must contact the DOE Contracting Officer for disposition instructions consistent with 10 CFR § 600.321(f) or its successor unless the DOE Contracting Officer shall determine otherwise in his or her sole discretion. Without limiting the generality of the foregoing, the following provisions shall apply with respect to DOE's interest in the Property:

- (i) Conversion. In the event Recipient utilizes Property for any purpose other than the Project as defined in Article 1 (such as using any Property other than primarily for lignocellulosic ethanol operations), the Recipient must notify the DOE Contracting Officer. The DOE Contracting Officer, in his or her sole and absolute discretion, may require Recipient to reimburse DOE that portion of the Government Share attributable to the current fair market value of the Property so converted. The parties will attempt to agree in good faith on the current fair market value of any Property so converted. In the event that the parties cannot agree on the then current fair market value of any Property so converted, the parties will mutually agree on the selection of an independent assessor to conduct an independent assessment of the current fair market value consistent with commercial practices. The parties shall share the costs

of the independent assessment in proportion to their respective cost share percentages under this Agreement. If the parties cannot agree on the selection of an independent assessor or continue to disagree after receipt of the independent assessment, the matter shall be resolved pursuant to Article 30 (Disputes) of this Agreement.

- (ii) Abandonment. In the event Recipient abandons the Project, the DOE Contracting Officer, in his or her sole and absolute discretion, may take title to Property having a current fair market value equal to the sum of all payments of the Government Share previously made to Recipient, subject to the terms and conditions of any encumbrance which DOE has previously authorized.
- (iii) Sale. DOE's interest in Property shall survive any sale or transfer of the Project by Recipient subject to the terms of any encumbrance relating to the Property that DOE has approved. It shall be a condition of any sale or transfer of the Project or any portion thereof which includes Property that the transferee or purchaser agrees to be bound by the provisions of this Agreement. For purposes of this Agreement, "sale" shall mean a sale of more than 50% of the outstanding voting securities of Recipient, sale of substantially all of the assets of Recipient, or merger or similar transaction or series of transactions involving Recipient.

ARTICLE 20. INTELLECTUAL PROPERTY

The Intellectual Property requirements applicable to this Agreement are provided in Attachment B to this Agreement.

ARTICLE 21. PURCHASING

For purchases made under this Agreement that are funded in whole or in part with Federal funds or Recipient's Cost Share, Recipient may use its existing purchasing systems, subject to Appendices A and B of 10 CFR Part 603.

ARTICLE 22. FLOW DOWN REQUIREMENTS TO CONTRACTORS

In accordance with the policy in 10 CFR § 603.610, Recipient shall provide the same financial management, property management, and purchasing systems requirements to any Contractor that would apply if such Contractor were Recipient.

ARTICLE 23. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) REQUIREMENTS

Recipient will complete all mitigation measures, demonstrate success against each metric, and provide associated documentation to DOE as defined in the Mitigation Action Plan as incorporated into the Environmental Assessment, which served as supporting documentation for the Finding of No Significant Impact issued on September 30, 2008. In the event that any of the metrics identified in the Mitigation Action Plan are not met successfully, DOE will require recipient to propose and implement additional mitigation measures until success is demonstrated.

Any material changes in project scope, design, operation, or construction must be reviewed by DOE for purposes of assuring DOE's continuing NEPA compliance. Further, Recipient represents and covenants that Recipient shall not make any material changes from the Proposed Action (as defined in the environmental assessment completed in connection with this Agreement) without prior notice and consultation with DOE.

Failure to comply with the terms of this provision may result in termination in accordance with Article 33 of this Agreement.

ARTICLE 24. CONDITIONS RELATED TO RECIPIENT FINANCING

- a. Notwithstanding the obligation of funds in this Agreement, 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 conditions in paragraph b. below are fully complied with by the Recipient.
- b. Conditions: As a condition to either receiving funds under this award or recognizing incurred costs toward cost share requirements, the Recipient must permit and aid in the completion of the following:
 1. a final Independent Project Analysis, Inc. (IPA) review which will be used to help determine the required contingency, subject to negotiation, that the Recipient must acquire in the form of immediately available funds or in the form of a loan commitment;
 2. an EIR-conducted by the Independent Engineer which will be conducted prior to construction authorization;
 3. the Performance Measurement Criteria for the Independent Engineer to conduct the Performance Test; and
 4. the final payment metrics, including final Eligible Activity Reimbursement Definitions and associated cover sheets (Attachment E).

The Recipient must also submit the following:

5. a final project budget;
6. a revised Risk Mitigation Plan which addresses the final IPA review and the findings of the EIR;
7. a final resource loaded schedule and WBS;
8. a final EPCM contract;
9.

REDACTED EXEMPTION 4

10. a detailed financing package, which should include at a minimum the following, as applicable:
 - (i) the sources and uses of investment funds commencing during the preliminary project design and planning phase, through construction, commissioning and shakedown of the Facility;
 - (ii) the sources of equity, the timing of equity infusions from the various contributors, and the governance document that will establish the rights and responsibilities of the investors by way of the project company with respect to transfer of ownership rights, put and call options, preferred or priority dividend returns, cost overrun obligations, management and related fees;
 - (iii) the sources of debt financing, the experience of the financial institution in projects of this type, commitment letter(s), term sheets and all other relevant financing documentation setting forth the conditions precedent for disbursement, the covenants and warranties of the borrower, the proposed

- amount of the loan, interest charges, repayment position, principal repayment schedule, fees, pre-payment and late payment penalties, cure rights and an outline of the security package;
- (iv) a copy of the preliminary financial closing checklist for the equity and debt; and
 - (v) a business plan on which the Project is based and project pro forma statements for the project life-cycle, including income statements, balance sheets, and cash flows. All such statements should include assumptions made in their preparation.
- c. Availability of Funds: Upon completion of the above conditions 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 the Performance Measurement Criteria, the final payment metrics, including final Eligible Activity Reimbursement Definitions, and a final project 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 Article 14 of this Agreement.
- d. Termination or Suspension: If the above conditions are not fully complied with to the satisfaction of the Contracting Officer no later than April 18, 2010, the Contracting Officer may unilaterally terminate or suspend this Agreement and deobligate the amounts obligated in accordance with Article 33. 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.

Estimated date of amendment to remove all conditions: April 18, 2010

ARTICLE 25. RECORD RETENTION AND ACCESS TO RECORDS

- a. Recordkeeping. The Recipient and any Contractor must keep records related to this Agreement for a period of three years after submission of the final financial status report, except for records related to an audit, claim, or dispute that begins but does not reach its conclusion within the three-year period, which must be kept until the matter is resolved and final action taken. Any records relating to Real Property or Equipment acquired with Project Funds must be kept for three years after final disposition.
- b. Access. The DOE Contracting Officer, the DOE Inspector General, and the Comptroller General of the United States, or any of their duly authorized representatives, shall have unrestricted access to any books, documents, papers or other records of the Recipient and Contractors that are pertinent to the Agreement in order to perform audits. Such audit, examination, or access shall be performed during business hours on business days upon prior written notice and shall be subject to the security requirements of the audited party. Unless specifically agreed otherwise in writing or pursuant to an order of a court or administrative authority with similar subpoena power, neither originals nor copies of the books, documents, papers, and other records of Recipient and Contractors shall be removed from Recipient's and Contractor's facilities.

ARTICLE 26. REPORTING

The Recipient must submit reports in accordance with the requirements in Attachment C.

ARTICLE 27. FEDERAL, STATE, AND MUNICIPAL REQUIREMENTS

The Recipient must obtain any required permits and comply with applicable Federal, state, and municipal laws, codes, regulations and permits for work performed under this Agreement.

ARTICLE 28. SITE VISITS

DOE and DOE'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. The Recipient must provide, and must require its Contractors to provide, reasonable access to facilities, office space, resources, and assistance for the safety and convenience of the DOE's 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. DOE's Contractors may be required to enter into nondisclosure agreements as may be required by Recipient, subject to approval of DOE, but will be allowed the same access to Project information as is available to DOE. DOE's representatives may not remove documents from POET facilities without the permission of POET.

ARTICLE 29. PUBLICATIONS

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, Golden Field Office under Agreement Number(s) DE-FO36-08GO18121."

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."

ARTICLE 30. CLAIMS, DISPUTES AND APPEALS

Except as otherwise set forth in Article 14.e. and Article 19 of this Agreement, Recipient must submit claims arising out of or relating to this Agreement in writing to the DOE Contracting Officer and must specify the nature and basis for the relief requested and include data that supports the claim. DOE will attempt to resolve such claims informally at the DOE Contracting Officer level. Appeals will be resolved by the DOE Senior Procurement Executive.

ARTICLE 31. FOREIGN ACCESS TO TECHNOLOGY

a. Restriction on Transfer. Consistent with 10 CFR § 603.875, the Parties understand that technology developments resulting from the performance of the Agreement may be subject to U.S. laws and regulations limiting access. Foreign national access to technology developed under this Agreement may constitute an export of the technology. Any transfer of technology developed under this Agreement must be consistent with U.S. laws and regulations, including the Department of

Commerce Export Regulation at Chapter VII, Subchapter C, Title 15 of the CFR, as applicable. Each Recipient and all Contractors shall comply with these laws and regulations.

b. Application to Contractors. Recipient shall include paragraph a. of this Article, suitably modified to identify the parties, in all agreements with Contractors. This flow down requirement applies to subawards for substantive performance of portions of the effort only.

ARTICLE 32. NATIONAL POLICY ASSURANCES

National Policy Assurances incorporated as terms to this Agreement are contained in http://www.management.energy.gov/business_doe/1374.htm.

PART V - TERMINATION AND ENFORCEMENT

ARTICLE 33. TERMINATION, SUSPENSION, AND ENFORCEMENT

a. Failure to Comply with this Agreement. The DOE Contracting Officer shall give written notice to Recipient upon a finding that Recipient has materially failed to comply with the terms and conditions of this Agreement setting forth the factual and legal bases for the determination of noncompliance, the corrective actions, and the date by which they must be taken (not less than 30 days), and which of the actions authorized under 10 CFR § 603.920(b) DOE may take if Recipient does not achieve compliance within the time specified in the written notice.

b. Termination by DOE for Material Adverse Effect. In the event of a Material Adverse Effect as defined in Article 3, DOE shall provide written notice to Recipient. Upon receipt of notice, Recipient shall have not less than 60-days opportunity to cure. If Recipient does not cure, DOE may terminate Agreement.

c. Termination or Suspension by DOE Contracting Officer. If Recipient (i) fails to cure the failure to materially comply with the terms and conditions of the Agreement or fails to cure any such default or event of default referred in Article 8.e.2. within the time period provided in the applicable instrument, this Agreement may be terminated or payment suspended in whole or in part by the DOE Contracting Officer for Recipient's material failure to comply with the terms and conditions of the award. Additional DOE enforcement remedies are contained in 10 CFR § 603.920(b).

d. Termination for Failure to Satisfy Article 24. DOE may terminate this Agreement upon the failure of Recipient to satisfy the conditions contained in Article 24 of this Agreement.

e. Mutual Agreement to Terminate. Subject to a reasonable determination by either Party that the Project will not produce beneficial results commensurate with the expenditure of resources, that Party may terminate in whole or in part the Agreement by providing at least 30 days advance written notice to the other Party, provided such notice is preceded by consultation between the Parties. The two Parties will negotiate the termination conditions, including the effective date and, in the case of partial termination, the portion to be terminated. If either Party determines in the case of partial termination that the reduced or modified portion of the Agreement will not accomplish the purpose for which the Agreement was made, the Agreement may be terminated in its entirety.

f. DOE Deobligation of Funds. In the event this Agreement is terminated for any reason under paragraphs a. – e. of this Article 33, DOE has the right to unilaterally deobligate funds not yet disbursed pursuant to Attachment E.

Attachment A – Project Scope

A. Project Purpose

The purpose of this Agreement is for DOE to provide to Recipient funding for final design, construction, Equipment, start-up, commissioning, and operational reporting of a plant capable of processing a minimum of 700 Dry Metric Tonnes per day of Lignocellulose to produce Ethanol Product that is integrated with Recipient's existing corn-based ethanol plant located near Emmetsburg, Iowa, (Recipient's Emmetsburg Plant) and for Recipient to use the operational data from the plant to make a commercially-reasonable decision (in Recipient's sole discretion) whether Recipient will Replicate the Core Technology used in the processing of the Lignocellulose (collectively defined as the "Project"). Recipient's decision not to Replicate the Core Technology in no way limits the rights of the Government or DOE to require Recipient to license the intellectual property as set forth under the intellectual property provisions, as set forth in Attachment B.

B. Objectives

Recipient will design, construct, and operate the Facility and decide whether to Replicate the Core Technology used in the Facility. Following shakedown operation at the maximum throughput possible, the Facility will be operated for at least three years to acquire maintenance and operating data and demonstrate the robustness of Facility equipment designs. During these three years of operation, information will also be obtained on Facility operability issues, ethanol yield, and process economics. This information will be necessary to establish the commercial viability and hence the ability to Replicate. These objectives fulfill requirements of the initial Funding Opportunity Announcement.

C. Work to be Performed

Recipient will conduct corporate administration and Project development activities, as well as activities associated with engineering, procurement, construction, Performance Test, and operation of the lignocellulosic biorefinery Facility.

Primary work activities for this Project include:

- Acquire appropriate permits from local, state, and Federal agencies
- Complete site preparation, utilities, access roads, and related infrastructure
- Ensure sustainable supply of feedstock for the Facility by obtaining supply contracts for Lignocellulose.
- Prepare a detailed engineering design for the integrated Facility
- Procure sufficient quantities of, set up production systems for, or obtain long term supply contracts for fermenting organisms and enzymes for the desired Facility capacity
- Procure equipment and materials per final design specifications
- Ensure the Facility is capable of processing a minimum of 700 Dry Metric Tonnes per day of Lignocellulose.
- Complete the Facility Substantial Completion activities including start-up and shakedown
- Demonstrate the economic viability of producing Ethanol Product through the Facility operations (minimum of three years after Facility Substantial Completion).

- Provide continued operational and economic data to DOE for a minimum of three years after the Performance Test

This Project includes the design, procurement, installation and operation of the components necessary for commercial viability. The list below includes but is not limited to:

- Civil infrastructure, including drainage, utilities and product transport
- Feedstock receiving, handling, and storage
- Feedstock pretreatment equipment
- Vessels, materials handling equipment, heat exchangers, and solid/liquid separators equipment that would be necessary to convert the feedstock to Ethanol Product
- Unit operations necessary to support the pretreatment, conversion, and recovery of ethanol from the Ethanol Product
- Vessels, materials handling equipment, and associated equipment that would be necessary to realize the reduction of outside energy inputs from the use of an anaerobic digester to produce combustible gas and a solids fuel boiler
- Product storage vessels and necessary equipment for product shipping
- Waste water treatment and other equipment necessary to meet relevant environmental standards

D. Project Plan

This Project will include various components relating to design, construction, start-up and continuous operation. The Project will be comprised of three phases. Phase 1 will include all activities needed to finalize the design, conduct a Construction Authorization Review, and give final approval for construction. DOE will complete Independent Engineering reviews through the completion of design. Phase 2 will be the project construction, Facility Substantial Completion activities (including startup and commissioning), and initial operation. Phase 3 will be a reporting period only which requires limited DOE involvement. Phase 3 will entail only those reporting requirements outlined in Attachment C, Section A. The following table provides an overview of scheduling relating to the completion of each major component.

Calendar Year Quarters

	Start Date	End Date
Phase 1*	REDACTED EXEMPTION 4	
90% Design Review and Approval		
Phase 2 †		
Construction; Start-up and Continuous operation		
Feedstock Collection and Processing		
Construction		
Start-up		
Continuous operation – 30 day		
Solid Fuel Separator and Boiler (at Recipient's discretion) *		
Construction		
Start-up		
Continuous operation – 30 day		
Anaerobic Digester (at Recipient's discretion)		

Construction
Start-up
Continuous operation – 30 day
Overall Facility
Construction
Start-up
Continuous operation – 30 day
Performance Test
Phase 3
Annual reporting on Facility operations and economics

REDACTED
EXEMPTION 4

Phase 1 will be completed upon DOE approval to begin construction. Phase 2 is scheduled to begin [Ex. 4] and is scheduled to be completed in [Ex. 4]. Recipient will report monthly to DOE as specified in Attachment C. Recipient will coordinate all engineering and construction management activities onsite. With DOE's approval, operation is scheduled to commence [Ex. 4] and completing the Performance Test, Phase 2 will be complete.

Phase 3 of the project will be a reporting only phase for the project, lasting three years. Recipient will report to DOE as specified in Attachment C. If Recipient fails to provide annual reports, Recipient shall make liquidated damage payments as specified in Article 14(c)(3).

The final report as outlined in Attachment C, Section E, will be provided to DOE by the Recipient and will include documentation of the commercial viability of the technology and plans for replicating the technology in other locations. The completion of this report and acceptance by DOE will be the final task of Phase 2 of the Project.

Attachment B – Intellectual Property Requirements

1. AUTHORIZATION AND CONSENT

- 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 Recipient agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services 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.

2. NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT

- a. The Recipient 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 Recipient 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 Recipient shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Recipient pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Recipient has agreed to indemnify the Government.
- c. The Recipient agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies 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.

3. PATENT INDEMNITY

- a. During the term of this Agreement, the Recipient shall indemnify the Government and its officers, agents, and employees against liability, including costs, for infringement of any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of the construction, operation, alteration, or modification, or repair of Real Property (hereinafter referred to as "construction work") under this contract, or out of the use or disposal by or for the account of the Government of such supplies or construction work.
- b. This indemnity shall not apply unless the Recipient shall have been informed as soon as practicable by the Government of the suit or action alleging such infringement and shall have been

given such opportunity as is afforded by applicable laws, rules, or regulations to participate in its defense. Further, this indemnity shall not apply to:

(1) An infringement resulting from compliance with specific written instructions of the Contracting Officer directing a change in the supplies to be delivered or in the materials or equipment to be used, or directing a manner of performance of the contract not normally used by the Recipient;

(2) An infringement resulting from addition to or change in supplies or components furnished or construction work performed that was made subsequent to delivery or performance; or

(3) A claimed infringement that is unreasonably settled without the consent of the Recipient, unless required by final decree of a court of competent jurisdiction.

4. PATENT RIGHTS

a. Definitions.

“Invention” means any invention or discovery which Recipient believes in good faith 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 and reduction to practice (whether actual or constructive) 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.

“Subject invention” means any invention of the Recipient conceived and reduced to practice (whether actual or constructive) 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.

“Intellectual property” means patents, trademarks, copyrights, mask works, protected data, trade secrets, and other forms of comparable Intellectual Property that are protected by federal law and foreign counterparts.

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. 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 United States, for research purposes only, the subject invention throughout the world, unless otherwise provided in this Agreement.

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

(1) The Recipient will disclose each subject invention to DOE within six 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 one year statutory period wherein valid patent protection can still be obtained in the United States, the period for election of title may be shortened by DOE 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 United States after a publication, on sale, or public use. The Recipient will file patent applications in additional countries or international patent offices within either 12 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 an irrevocable, non-exclusive, royalty-free license, with right to sublicense, 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. 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.

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 United States 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 United States 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 the subawardee/contractor. Either Recipient or Subrecipients/contractors performing experimental, developmental, or research work 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 unless Recipient ensures that such rights obtained by Recipient comply with the provisions of this Agreement. Those subawardees/subcontractors normally subject to the Bayh-Dole Act, 35 U.S.C. 200, et seq., shall have the option of retaining title to their own subject inventions.

(2) 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, and such other data and information as DOE may reasonably specify. The Recipient also agrees to provide additional reports with regard to Recipient's commercially reasonable efforts at Replication and 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. United States Competitiveness and Preference for United States Industry.

[REDACTED EXEMPTION 4] and where the processes or subject inventions at issue involve United States-based feedstocks, notwithstanding any other provision of this Patent Rights clause, the Recipient agrees that any products that Recipient sells in the United States that embodies subject inventions or were made using data first produced under this Agreement, will be manufactured substantially in the United States, and that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject invention in the United States 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 United States. 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 United States or that under the circumstances domestic manufacture is not commercially feasible. The Recipient further agrees that processes, services, and improvements thereof which incorporate subject inventions or data first produced under this Agreement shall be implemented in the Recipient's biorefinery facilities in the United States either prior to or simultaneously with implementation in its facilities outside the United States. Such processes, services, and improvements, when implemented in its facilities outside the United States, shall not result in reduction of the use of the same processes, services, or improvements in its facilities in the United States.

j. March-in-Rights.

The Recipient agrees that with respect to any subject invention in which it has acquired title, and to other Intellectual Property to which the Recipient has title under this Agreement, licensing, sublicensing rights, or data rights that are specifically used in, and necessary for Replication, DOE has the right to require the Recipient, an assignee, or exclusive licensee of Recipient's Core Technology to grant to a responsible applicant or applicants, upon terms that are reasonable under the circumstances (including, without limitation, reasonable royalties payable to Recipient), a non-exclusive, partially exclusive, or exclusive license to Recipient's Core Technology if Recipient has not used commercially reasonable efforts to Replicate.

Provided, however, that, DOE's rights under this provision shall not apply, and Recipient shall not have any obligation to grant a license or sublicense under this provision, unless (a) DOE provides written notice to Recipient specifically setting forth the basis upon which it believes that action under this provision is necessary and the steps that DOE believes are necessary to avoid application of this provision, and (b) Recipient (either directly or through one or more licensees) fails to use commercially reasonable efforts to achieve Replication within a period of one (1) year following its receipt of such notice.

Further, in the event that DOE offers march-in rights that are different from those set forth in this provision 4(j) or in provision 7 below to any other awardee of DOE pursuant to Section 932(d)(2)(B) of the Energy Policy Act of 2005, DOE shall offer such terms to Recipient hereunder.

k. Communications.

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

l. Electronic Filing.

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

5. RIGHTS IN DATA

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 (i) the source code, algorithm, process, formulae, and flow charts of the software, (ii) any Restricted computer software, (iii) any Protected Data and (iv) Limited rights data.

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 and as provided 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, 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, Protected Data and limited rights data) 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) Notwithstanding clause (b)(1) above, 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 if and when the data are published or deposited for registration as a published work in the United States Copyright Office. For such copyrighted data, including computer software (but excluding restricted 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 and are incorporated in data delivered under this Agreement to the Government, 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 Recipient 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)(1) 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 the protected 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-FO36-08GO18121 with the United States Department of Energy and may not be published, disseminated, or disclosed to others outside the Government until five years after the data are 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) Subject to clause (g)(5) below, any such marked Protected Data may be disclosed by the Government or the Contracting Officer under obligations of confidentiality solely for internal Governmental evaluation purposes under the restriction that the "Protected Data" be retained in

confidence and not be further disclosed; or to subcontractors or other team members performing work under this Agreement, as necessary for design, construction, operation, and Replication.

(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;

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

(e) if any of the data results in or becomes a subject invention, as defined in the Patent Rights clause of this Agreement, in which case the Government will treat such data as Protected Data until the Recipient has filed its initial patent application.

(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 data that demonstrate progress toward meeting DOE's technical goals to design, construct, build, and operate an integrated biorefinery employing lignocellulosic feedstocks. Such general data that demonstrates progress may include, for example, the amount of lignocellulosic ethanol produced annually, and the annual hours of operation of the Facility. 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 general data described 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. The general data described above shall not include the following types of data, which Recipient intends, without limitation, to claim and mark as protected data:

- A.
- B.
- C.
- D.
- E.
- F.
- G.
- H.
- I.
- J.
- K.
- L.
- M.
- N.
- O.

REDACTED
EXEMPTION 4

P.
Q.
R.
S.
T.
U.
V.
W.
X.
Y.
Z.
AA.
BB.
CC.
DD.
EE.
FF.
GG.
HH.

REDACTED
EXEMPTION 4

(5) The Government's sole obligations with respect to any Protected Data shall be as set forth in this paragraph (g) and as required under applicable regulations and law, including 18 U.S.C. 1905. The Government is responsible for obtaining nondisclosure agreements, where necessary, from its support services contractors that obligate those contractors to not disclose Protected Data.

h. Protection of Limited Rights Data.

(1) 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 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.

6. RIGHTS TO PROPOSAL DATA (TECHNICAL)

Except for data contained on pages 2-3, 5-19, 20-28 30-36, 40, 41-63, 64-67, 69, 70-83, 90-94 & Appendices B, D, and F-N of the application dated August 10, 2006, and subsequent revisions, upon which this Agreement is based, it is agreed that as a condition of award of this Agreement, 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 therein.

7. AVAILABILITY OF CONTRACT AND OTHER DATA

a. The Recipient will, for the entire period of Recipient's participation in the Project and for three years thereafter, whether or not under a government agreement, keep and maintain all technical data, including limited rights data and data obtained from subcontractors and licensors, necessary to construct and operate the Facility specified by the application dated August 10, 2006, and subsequent revisions, and all data including business and financial data necessary to evaluate the technical and economic operation of the Facility. During the entire period of construction and operation of the Facility, regardless of whether the Government participates past the design phase, the Recipient shall permit the Government and its representative the right to inspect at the Facility any data kept and maintained pursuant to this paragraph, subject to the terms and conditions of this Agreement.

b. If the Recipient withdraws from this Agreement or defaults on its obligations under this Agreement after the design or construction phases, the Government shall have the right to have all Protected Data specifically used in the implementation of the Facility delivered to the Government as the Contracting Officer shall direct upon such termination, provided that any Protected Data delivered pursuant to this paragraph shall be marked as provided in Paragraph (g)(1) of the Rights in Data clause.

Attachment C – Report Requirements

A. REGULAR REPORTS

Types of Regular Reports.

Project Report – This report will reflect the status of work completed to date throughout the Project's Phases 1 and 2. It will compare the status of Project scope, schedule, and budget planned versus actual work completed via the Work Breakdown Structure. This report will include a narrative discussing all significant accomplishments in the reporting period, significant variances, and an updated Risk Register. The DOE Project Officer will provide Recipient the template for this report.

Financial Report – This report will reflect the total amount of Project funds, both Recipient and DOE, expended to date on the project. This report will be submitted using the Government's Standard Form (SF) 269.

Payable Milestone Report – Throughout Phases 1 and 2, the Recipient shall submit with its request for payment Eligible Activity Reimbursement (EAR) documentation as defined in Attachment E along with appropriate cost documentation. This report, as required by Article 10, paragraph a, shall be sufficient for the DOE Project Officer and/or DOE's Independent Engineer to reasonably verify the accomplishment of the milestone identified in Attachment E.

Operation Report – This report will be submitted annually throughout Phase 3. It will consist of a short narrative limited to discussion of significant accomplishments and variances as well as cost, performance and Replication data as agreed to by the Parties. The DOE Project Officer will provide Recipient with the template for this report and retains the right to tailor the report as necessary.

Reporting Frequency.

On or before ninety (90) calendar days after the release of funds under this Agreement and monthly thereafter until the Project has successfully completed the Performance Test as provided in Attachment A, Recipient will submit a Project Report, Financial Report, and EAR documentation to DOE. Following the Performance Test through the completion of the Project, the Recipient shall submit an Operation Report annually for three years.

Submitting Reports.

All reports are to be submitted electronically to DOE Contracting Officer and Project Officer via the EERE Project Management Center database at <https://www.eere-pmc.energy.gov/SubmitReports.aspx>.

B. ANNUAL PROJECT PLAN DOCUMENT

Recipient shall submit electronically to the DOE Contracting Officer and Project Officer the draft Annual Project Management Plan (PMP) as described in Part I, Article 8.c.2. The draft plan shall be submitted 60 days following release of funds under this Agreement and 60 days before the end of each subsequent Government Fiscal Year thereafter. The Annual Project Plan shall provide a detailed schedule of activities for the upcoming year. Recipient shall use its commercially reasonable efforts to identify specific performance objectives, forecasted expenditures, and additional payments, if any. The Annual Project Plan shall reconcile all prior adjustments in the Project schedule, including revisions/modifications to the Schedule of Payments. The Recipient may modify milestones and forecast expenditures in the Annual Project Plan on a quarterly basis, and upon the approval by DOE. Recommendations for changes, revisions, or modifications to the Agreement, which result from the Annual Review, shall be made in accordance with the provisions of Part I, Article 8.e. The template for the Annual Project Plan will be provided by the DOE Project Officer.

C. SPECIAL STATUS REPORTS

The Recipient shall report the following events to the DOE Contracting Officer and DOE Project Officer (See Article 5 for email addresses) as soon as possible after they occur from the start of the Agreement until the end of the Project's Phase 3:

1. Developments that have a significant favorable impact on the Project, such as significant target accomplishments, significant tests, experiments, or symposia.
2. Problems, delays, or adverse conditions which materially impair the Recipient's ability to meet the objectives of the Agreement 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 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 DOE-owned Equipment in excess of \$50,000.
 - g. Any other incident that has the potential for high visibility in the media.

D. NOTICES TO DOE

As outlined in Part II, Article 8.e., the Recipient shall notify DOE as follows:

1. Project Process Design. Recipient shall promptly provide notice to the DOE Project Officer of all proposed changes in Project Scope and changes in design, operation, or construction that require a change order to Recipient's EPCM contract.
2. Default Under Loan or Debt Financing Agreements. Recipient shall give prompt notice to DOE of the existence of any default or event of default under any loan, revolving credit, debt financing, or similar agreement to which Recipient is a party.
3. Notice of Inability to Provide Cost Share. Recipient shall provide the notice required by Article 9.b. of this Agreement.
4. Notice of Equipment Removal. Recipient shall provide prompt notice to the DOE Contracting Officer of any removal of equipment or other property acquired under this Agreement from the Facility.
5. Notice of Contract Award. Recipient shall provide prompt notice of any contract with an award value in excess of \$1 million.
6. Notice of Environmental Changes: Recipient shall provide prompt notice to the DOE Contracting Officer of any actions or information that do not conform to the current NEPA determination.

E. INVENTION REPORTS

The Recipient and each Contractor must disclose each subject invention to DOE as specified in the Intellectual Property Requirements in Attachment B of this Agreement.

F. FINAL REPORT (NOTE: The Final Report is included in the last Payable Milestone of Phase 2)

1. The Recipient shall submit a Final Report making full disclosure of all major developments upon completion of the Agreement or within sixty (60) calendar days of termination of this Agreement. The Final Report will have two versions – one that is business sensitive and one that is publicly releasable.
2. Content. The business sensitive Final Report must include the following information
 - a. Identify the DOE Agreement number; Project title; name of Project director(s)/principal investigator(s); and major Contractors.
 - b. 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 DOE assumes no liability for the disclosure, use or reproduction of such reports.
 - c. Provide a one to two page executive-level summary, of the major accomplishments of the Agreement and the benefits of using a TIA. This summary shall include a discussion of the actual or planned benefits of the technologies for the commercial sectors.
 - d. Provide a comparison of the actual accomplishments with the goals and objectives of the Project.

- e. 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.
 - f. Identify products developed under the Agreement and technology transfer activities, such as:
 - 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 Agreement;
 - Web site or other Internet sites that reflect the results of this Project;
 - Networks or collaborations fostered;
 - Technologies/Techniques;
 - Inventions/Patent Applications, licensing agreements; and
 - Other products, such as data or databases, physical collections, audio or video, software or netware, models, educational aid or curricula, instruments or Equipment.
3. 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>.
 4. 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 Contracting Office.
 5. 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 Article 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 Agreement that is protected from public release for a period of time by the terms of the Agreement.

G. CLOSE-OUT REPORTS

The Recipient shall submit the following close-out reports to the DOE Contracting Officer:

1. Patent Certification at <http://grants.pr.doe.gov>: Due within 60 days of the end of the Project period or termination of the Agreement.
2. Property Certification at <http://grants.pr.doe.gov>: Due within 60 days of the end of the Project period or termination of the Agreement.

Attachment D – DOE Funding Schedule

Governmental Fiscal Year	DOE Funding
FY08*	\$ 54,222,980
FY09 - FY11**	\$ 22,013,733
TOTALS	\$ 76,236,713

* The total amount allotted by DOE to this Agreement is \$54,222,980 and is expected to cover the period of performance, through Performance Testing. The Parties contemplate that the Government will allot additional funds incrementally to the Agreement up to the full Government Share of the project.

**DOE Funding is subject to the availability of appropriated funding for each fiscal year.

Attachment E – Schedule of Payments and Payable Milestones

	Total Budgeted Cost	DOE Share	Recipient Share
Funded Project Budget	\$ 193,836,713	\$ 76,236,713	\$ 117,600,000
Funded Project Contingency**	TBD		TBD
Funded Project Total	\$ > 193,836,713	\$ 76,236,713	\$ > 117,600,000
Operational Reports***		\$ -	\$ -
Total	\$ > 193,836,713	\$ 76,236,713	\$ > 117,600,000

** Contingency will be based on IPA's final report, see Article 24.

*** Recipient will pay liquidated damages if Recipient fails to submit any annual Operation Report, see Article 14 and Attachment A.

This TIA does not authorize release of DOE funds. Prior to release of funds and payment through this award, several items (see Article 24 for full list) must be submitted by the Recipient and accepted by DOE including the Eligible Activity Reimbursement Definitions and associated cover sheets (EAR). The EARs must be negotiated between the recipient and DOE with the aid of the Independent Engineer. The EAR documents will define scope, gateways, and performance requirements based on the Resource Loaded Work Breakdown Structure. DOE will reimburse up to 40% of the total cost for each EAR, as defined in the FOA. Each EAR should align, subject to negotiation, with the following general payment types in order for the DOE appointed Independent Engineer to easily measure the progress of the project and evaluate recipient invoices.

General Payment Types

- Milestone completion
- Large Equipment
 - At point of vendor invoice, delivery and recipient acceptance, or installation
- Materials and Supplies
 - i.e. structural steel, pipe, concrete, reinforcing steel, wire, etc.
 - At point of vendor invoice, delivery and recipient acceptance, or installation (percentage of steel raised, percentage of concrete poured, etc.)
- Site work
 - i.e. percentage of dirt moved, etc.
- Mobilization and Demobilization Fees
 - If fee deemed appropriate by DOE

EAR will be limited to items that can be measured against project progress and completion. Items that will specifically not be included within the EAR include, but are not limited to Recipient personnel costs, Recipient management costs, Recipient travel, Recipient indirect rates, and Recipient overhead rates.

Per Part II.8.d. of this Agreement, the DOE Contracting Officer retains approval authority with regard to revisions to the documents. Requests for disbursements will be made against the pre-approved EAR documents for respective WBS activities. The Independent Engineer is responsible for validating the acceptable completion of invoiced EAR activities, or portions thereof, and providing written documentation to the DOE Contracting Officer and Project Officer.