Sub-Recipient Name/Organization	Purpose/Tasks in SOPO	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
	REDACTED EXEMPTION 4				
	Sub-total				

Vendor Name/Organization	Product or Service, Purpose/Need and Basis of Cost (Provide additional support at bottom of page as needed)	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
EXAMPLE ONLY!!! ABC Corp.	REDACTED EXEMPTION 4				

FFRDC Name/Organization	Purpose	Budget Period 1 Costs	Budget Period 2 Costs	Budget Period 3 Costs	Project Total
	REDACTED EXEMPTION 4				

Total Contractual					

AdditionalExplanations/Comments (as necessary)

g. Construction

PLEASE READ!!!

Construction, for the purpose of budgeting, is defined as all types of work done on a particular building, including erecting, altering, or remodeling. Construction conducted by the award recipient is entered on this page. Any construction work that is performed by a vendor or subrecipient to the award recipient should be entered under f. Contractual.

List all proposed construction below, providing a basis of cost such as engineering estimates, prior construction, etc., and briefly justify its need as it applies to the Statement of Project Objectives.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Overall description of construction actiivities:

Example Only!!! - Build wind turbine platform

General Description	Cost	Basis of Cost	Justification of need
Budget Period 1			
Three days of excavation for platform site EXAMPLE ONLY!!!			
		REDACTED EXEMPTION 4	
Budget Period 1 Total			
Budget Period 2			
		REDACTED EXEMPTION 4	
Budget Period 2 Total			

General Description	Cost	Basis of Cost	Justification of need
Budget Period 3			
Budget Period 3 Total			
PROJECT TOTAL			

REDACTED
EXEMPTION 4

dditional Explanations/Comments (as necessary)

h. Other Direct Costs

PLEASE READ!!!

Other direct costs are direct cost items required for the project which do not fit clearly into other categories, and are not included in the indirect pool for which the indirect rate is being applied to this project. Examples are meeting costs, postage, couriers or express mail, telephone/fax costs, printing costs, etc.

Basis of cost are items such as vendor quotes, prior purchases of similar or like items, published price list, etc.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

General description	Cost	Basis of Cost	Justification of need
		Budget Period 1	
XAMPLE ONLY!!! Grad student tuition			
		REDACTED EXEMPTION 4	
Budget Period 1 Total			
		Budget Period 2	
		REDACTED EXEMPTION 4	
Budget Period 2 Total			
		Budget Period 3	
Budget Period 3 Total			
PROJECT TOTAL		REDACTED EXEMPTION 4	

Additional Explanations/Comments (as necessary)

i. Indirect Costs

	Budget Period 1	Budget Period 2	Budget Period 3	Total
Rate applied:		REDACTED		
Total indirect costs requested:		EXEMPTION 4		

A federally approved indirect rate agreement, or rate proposed supported and agreed upon by DOE for estimating purposes is required if reimbursement of fringe benfits is requested. Please check (X) one of the options below and provide the requested information if it has not already been provided as requested, or has changed. Calculate the indirect rate dollars and enter the total in the Section B., line 6.j. (Indirect Charges) of form SF 424A.

____ **There is a federally approved indirect rate agreement. A copy is provided with this application and will be provided electronically to the Contracting Officer for this project.**
**In the area designated below, identify the full calculations used to derive the total indirect costs. See further information below.*

X **There is no current, federally-approved indirect rate agreement.**
*When this option is checked, the entity preparing this form shall submit an indirect cost rate proposal in the format provided at the following website, or in a format that provides the same level of information and which supports the rate(s) being proposed for use in estimating the project. Go to https://www.eere-pmc.energy.gov/forms.aspx and select PMC 400.2 Sample Rate Proposal. *In the area designated below, identify the full calculations used to derive the total indirect costs. See further information below.*

Additional Explanations/Comments (as necessary)

*IMPORTANT: In the space provided below (or as an attachment) provide a complete explanation and the full calculations used to derive the total indirect costs. If the total indirect costs are a cumulative amount of more than one calculation or rate application, the explanation and calculations should identify all rates used, along with the base they were applied to (and how the base was derived), and a total for each (along with grand total). The rates and how they are applied should not be averaged to get one indirect cost percentage. NOTE: The indirect rate should be applied to both the Federal Share and Recipient Cost Share.

Cost Share

PLEASE READ!!!

A detailed presentation of the cash or cash value of all cost share proposed for the project must be provided in the table below. Identify the source & amount of each item of cost share proposed by the award recipient and each sub-recipient or vendor. Letters of committment must be submitted for all third party cost share (other than award recipient).

Note that "cost-share" is not limited to cash investment. Other items that may be assigned value in a budget as incurred as part of the project budget and necessary to performance of the project, may be considered as cost share, such as: contribution of services or property; donated, purchased or existing equipment; buildings or land; donated, purchased or existing supplies; and/or unrecovered personnel, fringe benefits and indirect costs, etc. For each cost share contribution identified as other than cash, identify the item and describe how the value of the cost share contribution was calculated.

Funds from other Federal sources MAY NOT be counted as cost share. **This prohibition includes FFRDC sub-recipients. Non-Federal sources include private, state or local Government, or any source not originally derived from Federal funds. Documentation of cost sharing commitments must be provided, if not already provided with the original application and they have not changed since its submission.**

Fee or profit will not be paid to the award recipients or subrecipients of financial assistance awards. Additionally, foregone fee or profit by the applicant shall not be considered cost sharing under any resulting award. Reimbursement of actual costs will only include those costs that are allowable and allocable to the project as determined in accordance with the applicable cost principles prescribed in 10 CFR 600.127, 10 CFR 600.222 or 10 CFR 600.317. Also see 10 CFR 600.318 relative to profit or fee.

Add rows as needed. If rows are added, formulas/calculations may need to be adjusted by the preparer.

Organization/Source	Type (cash or other)	Cost Share Item	Budget Period 1 Cost Share	Budget Period 2 Cost Share	Budget Period 3 Cost Share	Total Project Cost Share
ABC Company EXAMPLE ONLY!!!		REDACTED EXEMPTION 4				
		Totals				

Total Project Cost: **Cost Share Percent of Award:**

Additional Explanations/Comments (as necessary)

REDACTED EXEMPTION 4

PMC 112.2
(08/27/2009)

U.S. DEPARTMENT OF ENERGY
PROJECT MANAGEMENT CENTER

REQUEST FOR REVIEW

☐ Normal Review ☒ Expedited Review Date: 12/22/2009

Justification for Expedited Review ARRA Fully Conditional Award Deadline

Award Number: DE-EE0002877 FOA Number, if new award: DE-FOA-0000096

Item(s) For Review:
Fully Conditional Award

Total Project: $ EX 4
Federal Funds: $ 21,765,738

Specialist Listed on Award: Molly Hames Phone: 303-275-4864

Specialist Who Prepared Award: Phone:

Note to Specialist: Send 72 Hour Congressional Notification for FOA action reviews, as required.

☑ PEER REVIEW

Comments:

REDACTED
EXEMPTION 5

Signature: Melissa Wise Date: 1/18/2010

☐ CONTRACTING OFFICER REVIEW

☐ Approved ☑ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments: See attached sheet.

Signature: Melissa Wise Date: 1/18/2010

☐ INDEPENDENT REVIEW

Comments:

Signature: Date:

☐ LEGAL REVIEWS – SEE PAGE 2 **(Delete page 2 if not required)**

☐ OAFA BRANCH CHIEF REVIEW

☐ Approved ☐ Approved subject to comments below/attached ☐ Not Approved; Comments below/attached

Comments:

Signature: Date:

☐ DIRECTOR FINANCIAL ASSISTANCE REVIEW – SEE PAGE 3 **(Delete page 3, if not required)**

☐ HEAD OF CONTRACTING ACTIVITY REVIEW – SEE PAGE 3 **(Delete page 3, if not required)**

REDACTED

FOIA EXEMPTION 4

Department of Energy
Washington, DC 20585

I certify that the funds stated herein are available for obligation and the work scope is consistent with the intent of Congress.

12/23/09

David J. Smith
Lead Budget Analyst, EE-3B

FED 10-5069 DEC
ARRA FUNDS

MEMORANDUM FOR: Rita Wells, Executive Director for Field Operations
Golden Field Office (GO)

SUBJECT: FY 2010 Biomass Program Approved Funding for Golden Field Office (GO)

In accordance with the approved EERE Biomass Program FY 2010 spend plan, budget authority of $608,598,927 in operating expenses is authorized for obligation and expenditure in accordance with program guidance as indicated below. Any required changes must be approved in writing by the appropriate headquarters program manager and budget execution staff. Field transfers must be coordinated through the Corporate Planning System (CPS). Funding authorized in this letter is not approved for support service contracts; either as a prime or subcontract award. The field AFP recipient of the funds is responsible for reporting all funding obligations and costs to the Project Management Center and headquarters. The field AFP recipient must maintain obligations and cost data at the agreement level and the data must be made available to EERE.

PROGRAM GUIDANCE

Program Activity & Key Activity	B&R Code-Fund Value-Program Code	BA($)
Biomass Program Thermochemical Platform R&D	BM0101010-05794-1004170 (2009)	$33,818,814
Biomass Program Bioconversion Platform R&D for Sugars	BM0101020-05794-1004171 (2009)	$10,692,095
Biomass Program Feedstocks Infrastructure	BM0102030-05794-1004172 (2009)	$33,344,378

Carryover funding in the amount of $77,855,287 is authorized for BM0101010-05794-1004170-Thermochem (2009), BM0101020-05794-1004171-Bioconversion (2009), and BM0102030-05794-1004172-Feedstocks (2009). These funds are made available for Solicitation #20475 - *B3 (b) GFO - Algal and Advanced Fungible Biofuels Consortia (Project 2004020)*. This funding supports a Recovery Act solicitation comprised of two major topic areas. The intended purpose of this FOA is to serve three primary goals of EERE: 1) increase the viability and deployment of renewable energy technologies, thereby 2) spurring the creation of a domestic bio-industry, resulting in 3) a dramatic reduction in dependence on imported oil. Under this FOA, DOE will issue awards to Consortia that synergistically use their unique capabilities to expedite the

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development of biomass-based fuel production pathways. These teaming efforts are expected to involve specific scientific, engineering, system design, analysis, and project management disciplines that can work together effectively to accomplish the stated project objectives. Such partnerships should include an appropriate mix of U.S. industry, academia, and government and/or non-government laboratories, and could include foreign entities with the appropriate skill sets. Additionally, these partnerships will seek to utilize "best-in-class" technical approaches. DOE is not prescribing a specific number of team members, team structure, or mix of organization types. It will be up to the Consortia to determine the appropriate mix of technical partners. The two topic areas are as follows: (1) Algal Biofuel Consortia for research and development to investigate the potential for algae to commercially produce a variety of biofuels, such as renewable gasoline, diesel or jet fuel; and, (2) Advanced Infrastructure Compatible Biofuels Consortia to develop new and innovative approaches for the conversion of biomass to advanced biofuels that are infrastructure compatible, distinct from current technical pathways for producing hydrocarbons from biomass feedstocks. The headquarters technical point of contact is Leslie Pezzullo who can be reached on (202) 586-1514. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Program Activity & Key Activity	**B&R Code-Fund Value-Program Code**	**BA($)**
Biomass Program Integration of Biorefinery Technologies	BM0102060-05794-1004173 (2009)	$81,134,686

Carryover funding in the amount of $81,134,686 is authorized for BM0102060-05794-1004173-Biorefinery (2009). These funds are made available for Solicitation #20452 - *B2 - WBS 8.5.8.3 Commercial Scale Biorefinery Projects (Project 2004010)*. This funding supports an increased federal funding ceiling for two commercial scale integrated biorefinery projects that were competitively selected and awarded within the last two years, but which have encountered delays due to the state of the economy. This Recovery Act funding will serve to reduce risk of the development and deployment and allow for increased confidence by the lending community to provide debt financing the awardees. This will in turn allow them to meet their cost-share requirements and move these projects more rapidly beyond the initial phases of development into final engineering and construction. Ultimately, this will accelerate the timeline for start up and commissioning, and support the timely meeting to the EISA 2007 RFS targets. The headquarters technical point of contact is Valri Lightner who can be reached on (202) 586-0937. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Program Activity & Key Activity	**B&R Code-Fund Value-Program Code**	**BA($)**
Biomass Program Integration of Biorefinery Technologies	BM0102060-05794-1004173 (2009)	$449,608,954

Carryover funding in the amount of $449,608,954 is authorized for BM0102060-05794-1004173-Biorefinery (2009). These funds are made available for Solicitation #20451 - *B1 - WBS 8.5.8.1 Integrated Biorefinery Pilot and Demonstration Scale FOA (Project 2004000)*. This funding supports awards associated with a solicitation issued under the Recovery Act, DE-FOA-0000096, for integrated biorefinery projects that have the necessary technical and economic performance data that validates their readiness for the next level of scale-up. These integrated biorefineries will produce, as their primary product, a liquid transportation fuel that supports, depending on topic area, meeting the advanced, renewable or advanced biofuels portion of the Energy Independence and Security Act of 2007 (EISA) Renewable Fuel Standards (RFS) or, depending on topic area, a bioproduct that substitutes for petroleum-based feedstocks and products. The six topic areas involve the design, construction, and/or operation of the following (as generally defined, and with acceptable feedstocks, fuels, and products specified by topic in the FOA): (1) a "pilot-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock"; (2) a "pilot-scale" biorefinery to produce an "acceptable bioproduct"; (3) a "demonstration-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock"; (4) a "demonstration-scale" biorefinery to produce an "acceptable bioproduct" using a topic-specific "acceptable feedstock"; (5) a "pilot-scale" biorefinery using a topic-specific "acceptable feedstock" to produce an "acceptable biofuel" using an "acceptable feedstock"; or, (6) a "demonstration-scale" biorefinery to produce an "acceptable biofuel" using an "acceptable feedstock". A pilot-scale biorefinery project has been defined as a facility with a throughput of no less than one (1) dry tone of feedstock per day, and a demonstration-scale biorefinery must be designed and constructed for a throughput of at least fifty (50) dry tones of feedstock per day. The headquarters technical point of contact is Valri Lightner who can be reached on (202) 586-0937. The field point of contact is Kevin Craig who can be reached on (303) 275-4955.

Should you have any questions regarding budget matters, please contact Leshawn Sutton who can be reached on (202) 586-9258.

Cathy Zoi, Assistant Secretary
Energy Efficiency and Renewable Energy

cc: Angela Sigala (GO)
Dolores (Dee) Adams (GO)
Edward Loudin (NETL)
Jami Shepherd (GO)
Jeffrey Steich (NETL)

Jennifer Surdi (GO)
Kevin Craig
Leslie Pezzullo
Marlys Kinsey (GO)
Valri Lightner

ASSISTANCE AGREEMENT

1. Award No.	2. Modification No.	3. Effective Date	4. CFDA No.
DE-EE0002877		01/28/2010	81.087

5. Awarded To	6. Sponsoring Office	7. Period of Performance
SOLAZYME, INC. Attn: MATTHEW FROME 561 ECCLES AVE SOUTH SAN FRANCISCO CA 940801906	Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401	01/28/2010 through 03/31/2013

8. Type of Agreement	9. Authority	10. Purchase Request or Funding Document No.
☐ Grant ☒ Cooperative Agreement ☐ Other	109-58, Energy Policy Act 2009 111-5, Recovery Act 2009	10EE002334

11. Remittance Address	12. Total Amount	13. Funds Obligated
SOLAZYME, INC. Attn: MATTHEW FROME 561 ECCLES AVE SOUTH SAN FRANCISCO CA 940801906	Govt. Share: $21,765,738.00 Cost Share : $5,441,397.00 Total : $27,207,135.00	This action: $21,765,738.00 Total : $21,765,738.00

14. Principal Investigator	15. Program Manager	16. Administrator
Anthony Day 650-780-4777	Carol Christine Sterner Phone: 303-275-4720	Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401-3393

17. Submit Payment Requests To	18. Paying Office	19. Submit Reports To
OR for Golden U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4517 Oak Ridge TN 37831		

20. Accounting and Appropriation Data

Biomass - IBR ARRA

21. Research Title and/or Description of Project

RECOVERY ACT - SOLAZYME INTEGRATED BIOREFINERY (SZIBR): DIESEL FUELS FROM HETEROTROPHIC ALGAE

For the Recipient		For the United States of America	
22. Signature of Person Authorized to Sign		25. Signature of Grants/Agreements Officer Melissa Wise	
23. Name and Title	24. Date Signed	26. Name of Officer Melissa Y. Wise	27. Date Signed 01/20/2010

Working Copy

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE OF
	DE-EE0002877	2 | 3

NAME OF OFFEROR OR CONTRACTOR
SOLAZYME, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	DUNS Number: 145862012				
	"Electronic signature or signatures as used in this document means a method of signing an electronic message that-- (A) Identifies and authenticates a particular person as the source of the electronic message; (B) Indicates such person's approval of the information contained in the electronic message; and, (C) Submission via FedConnect constitutes electronically signed documents."				
	1. This is a conditional award, comprised of this Assistance Agreement and the Special Terms and Conditions. Upon successful completion of negotiations, this award will be modified to lift its conditional status, to revise the Special Terms and Conditions, and to add additional attachments, such as Attachment 1, Intellectual Property Provisions; Attachment 2, Statement of Project Objectives; Attachment 3, Federal Assistance Reporting Requirements; and Attachment 4, Budget Information - Non Construction Programs.				
	2. The award was prepared using the proposed budget information in the Recipient¿s application. The Special Terms and Conditions, Provision 1 of the award states DOE will not release the funding obligated by this award until the Awardee submits a full application and subsequently requested supplemental information, the Contracting Officer reviews and approves the Awardee's application and supplemental information, and completion of negotiations. Performance against this award is, therefore, at the Recipient¿s own risk, and payments for costs incurred for the Recipient¿s project will not be made until completion of negotiations.				
	3. The administrative office for this award is 03601. The administrative office (administrative contracting activity) code is needed by the recipient for reporting to FederalReporting.gov concerning awards made with funding from the American Recovery and Reinvestment Act of 2009 (ARRA or Recovery Act). Recipients must report to FederalReporting.gov by the 10th day of each quarter.				
	Continued ...				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
DE-EE0002877

NAME OF OFFEROR OR CONTRACTOR
SOLAZYME, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	4. A representative of the DOE office will contact the Recipient to request additional and/or revised information needed to supplement and clarify the Recipient's application, to complete the negotiations of an amended award. DOE Award Administrator: Molly Hames E-mail: molly.hames@go.doe.gov Phone: 303-275-4864 DOE Project Officer: Christy Sterner E-mail: christy.sterner@go.doe.gov Phone: 303-275-4720 Recipient Business Officer: Anthony Day E-mail: tday@solazyme.com Phone: 650-780-4777 Recipient Principal Investigator: Anthony Day E-mail: tday@solazyme.com Phone: 650-780-4777 ASAP: NO Extent Competed: COMPETED Davis-Bacon Act: YES Delivery Location Code: 03601 Golden Field Office U.S. Department of Energy Golden Field Office 1617 Cole Blvd. Golden CO 80401-3393 Payment: OR for Golden U.S. Department of Energy Oak Ridge Financial Service Center P.O. Box 4517 Oak Ridge TN 37831 Fund: 05794 Appr Year: 2009 Allottee: 31 Report Entity: 200835 Object Class: 41000 Program: 1004173 Project: 2004000 WFO: 0000000 Local Use: 0000000 TAS Agency: 89 TAS Account: 0331				

From: DiFranco, Carlo on behalf of GO D&B Rpt Requests
Sent: Wednesday, December 16, 2009 3:11 PM
To: Hames, Molly
Subject: RE: D&B Report - Solazyme, Inc. (DE-EE0002877)
Attachments: Solazyme Inc._145862012.doc

No worries...

Your requested D&B report is now available for viewing in the PMC.

Let me know if you have any questions.

Regards,

Carlo DiFranco
Procurement Assistant
Navarro Research and Engineering Inc.
US Dept. of Energy - Golden Field Office
PH: 303 275 4719

-----Original Message-----
From: Hames, Molly
Sent: Wednesday, December 16, 2009 2:06 PM
To: GO D&B Rpt Requests
Subject: D&B Report - Solazyme, Inc. (DE-EE0002877)

Hello,
I would like to request a D&B Risk Assessment Report for the company Solazyme, Inc.

Sorry on the previous two requests I forgot to put the company name on the end of the file document.

Thanks,

Molly Hames
Grants & Agreements Specialist
U.S. Department of Energy
Golden Field Office
1617 Cole Blvd. Golden, CO 80401
Phone: 303-275-4864
Fax: 303-275-4754

PMC 460.2
(09/06)

U.S. DEPARTMENT OF ENERGY – RISK ASSESSMENT

SECTION I – To be completed by the Specialist and forwarded to D&B Coordinator

Name of Requestor:	Molly Hames	**Date of Request:**	12/16/2009
Awardee Name:	Solazyme, Inc.	**Award No.**	DE-EE0002877
Street Address:	561 Eccles Avenue	**Project Title**	Solazyme Integrated Biorefinery (SzIBR): Diesel Fuels from Heterotrophic Algae
City/State/ZIP:	South San Fransisco, CA, 94080-1906	**DUNS Number:**	14-586-2012
Business Contact:	Anthony Day	**Phone Number:**	650-780-4777

☐ The Recipient has been selected for Award. Please pull a Dun & Bradstreet (D&B) Business Information Report (BIR). This report should be requested on all For Profit and Non-Profit Recipients with awards > $100K (DOE) (excluding Educational Institutions, Tribal Nations, or State and Local Governments). *This form should be used for new awards, renewals and continuations.*

☒ The Recipient is a Small Business entity and a D&B BIR report was pulled which identified a 4 rating. Please pull D&B Small Business Risk Account Scoring Report. The PMC460.3 "Authorization For Consumer Report Information" is properly signed and attached.

☐ The Recipient has requested reassessment due to changed situation. Date of initial report was: _____. A new PMC460.3 "Authorization For Consumer Report Information" is properly signed and attached. *(Note: A reassessment may be requested no sooner than 6 months after initial D&B report date)*

SECTION II -To be completed by D&B Coordinator

Type of D&B Report Pulled

☒ Business Information Report (BIR)

☐ Small Business Scoring Report (SBRASR) (PMC460.3 required)

Proper Authorization Verified Initial:_____

Report Pulled By:

Name: **Carlo DiFranco**

Date: **12/16/2009**

Electronic File Name: **PMC Shared Docs/Risk Assess/DB Reports/SOLAZYME, INC_121619.doc**

Comments:

D&B SCORE:_____ **SECTION III - To Be Completed by FOA/Congressional Directed Project Specialist**

The Specialist will make a risk assessment recommendation based on the following criteria.

All Recipients: Recipient is **not At Risk** if the last digit of the BIR Score is a 1, 2, or 3,

Other than Small Business: Recipient is **At Risk** if the last digit of the BIR Score is a 4, or there is no score and instead is a letter code or --

Small Business: If last digit of the BIR Score is 4, request a SBRASR report. If the SBRASR score is between 0 and 15, Recipient is **At Risk**.
If the SBRASR score is between 16 and 30, Recipient is **At Risk**, but may not require as high of a level of monitoring.
If the SBRASR score is greater than 30, Recipient is **not At Risk**.
If there is an unexpected event or material item discovered which will impact the assessment, further analysis may be required. (i.e. information received in conversation with the recipient)

Awardee Risk Determination

☐ At Risk (Include the **"At Risk"** provision in the Terms and Conditions of the Award. Follow-up is required if any Action Items are checked below)

☐ Not At Risk (No Further Action Required)

Action Items/Recommendations:

☐ Awardee requires on-going monitoring: Activate D&B Customer Watch Alert Monitoring Service and forward the results to the Specialist.
☐ CP Analysis required on additional information received (i.e. Financial Statements, SBRASR Reports)*
☐ Other:_____

Comments:

Assessment Completed by:_____ Date:_____
[Enter Name, Title]

Specialists: Forward this form, or the results (including Recipient Name, DUNS, Award No., and Y/N At-Risk Determination), to the D&B Coordinator, who will update the Tracking Log and activate the D&B Customer Watch, if applicable. Place this form in the Award File, along with the first page of the D&B Report containing the score. *The Specialist shall initiate a PMC 420.3 form if CP analysis is required (GO only).

December 4, 2009

Mr. Anthony Day
Solazyme, Inc.
561 Eccles Avenue
South San Francisco, CA 94080

Dear Mr. Anthony Day:

SUBJECT: Biomass Funding Opportunity Announcement DE-FOA-0000096, Recovery Act - Demonstration of Integrated Biorefinery Operations

Evaluation of your application received in response to the subject Funding Opportunity Announcement has been completed. After a careful review, I am pleased to inform you that your application has been selected for negotiations leading to an award.

In order to expedite the negotiation process, further information is needed to clarify and supplement your application. Please submit the following information to Molly Hames, Specialist, by January 4, 2010, if the information was not previously provided, or if any information has changed.

1. Complete each of the following required forms, which are available on the Project Management Center website at https://www.eere-pmc.energy.gov/Forms.aspx

    a. Application for Federal Assistance, SF 424;
    b. Budget Information – Non Construction Programs, SF 424A or SF 424 (R&R);
    c. Financial Assistance Pre-Award Information Sheet, PMC 121.1
    NOTE: Complete the PMC 121.1 form first and promptly email it under separate cover to me at the email address listed below;
    d. Financial Information, PMC 410.1;
    e. Representation of Limited Rights Data and Restricted Computer Software;
    f. Environmental Checklist, EF1. (This form should be completed on line at https://www.eere-pmc.energy.gov/nepa.asp)
    g. Statement of Project Objectives;
    h. Commitment Letters from Third Parties Contributing to Cost Sharing;
    i. Copy of your approved Indirect Rate Agreement or a Rate Proposal, following the guidelines in the PMC 400.2 form.

During fiscal year 2008, this office will implement a new electronic, paperless procurement system called STRIPES. Upon implementation of STRIPES, ALL organizations currently doing or wanting to do business with this office MUST BE registered with the Central Contractor Registration (CCR) and with FedConnect. As a result, it is imperative that you read and react to information provided in the document entitled "CCR and FedConnect Registrations" on the above referenced PMC website.

The Financial Assistance Regulations, found at https://www.eere-pmc.energy.gov/forms.aspx , and the OMB Circulars, found at http://www.whitehouse.gov/OMB/circulars/index.html will assist you in understanding your requirements as an award Recipient

You may incur pre-award costs 90 calendar days prior to award without prior approval or more than 90 calendar days with the prior approval of DOE. All pre-award costs are incurred at your risk (i.e., DOE is under no obligation to reimburse such costs if for any reason you do not receive an award or if the award is less than anticipated and inadequate to cover such costs). All costs must be allowable in accordance with the applicable cost principles.

In order to expedite the negotiation process, further information is needed to clarify and supplement your application. Please submit the following information to Molly Hames, Specialist, by January 4, 2010, if the information was not previously provided, or if any information has changed.

All projects receiving financial assistance from DOE must be reviewed under NEPA, for potential environmental impacts of the project. Funding for an award is contingent upon successfully completing the negotiations and obtaining the NEPA determination. You are restricted from taking any action using federal funds or your cost share funds, which would have an adverse affect on the environment or limit the choice of reasonable alternatives prior to DOE providing either a NEPA clearance or a final NEPA decision regarding the project.

If you move forward with activities that are not authorized for federal funding by the DOE Contracting Officer in advance of the final NEPA decision, you are doing so at risk of not receiving federal funding and such costs may not be recognized as allowable cost share.

This letter constitutes your debriefing for this Funding Opportunity Announcement.

On behalf of the Department of Energy, I would like to express a sincere appreciation of your interest and participation in developing the US bioindustry and look forward to initiating this worthwhile project.

Sincerely,

Fred Gerdeman

Fred Gerdeman
Merit Review Committee Chairperson

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Business and Commercialization Plan

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1. Commercialization Pathway from SzIBR to Forecasted Commercial Facility

1.1. Overview of the First and Subsequent Forecasted Commercial Facilities

Commercial facilities arising out of the technology pathway embodied in this proposal will comprise a front-end module that converts lignocellulosic biomass to fermentable sugars coupled to a back-end module that converts the fermentable sugars to algal oil suitable for refining to liquid transportation fuels. The back-end module will implement Solazyme's cellulosic-sugar-to-algal-oil technology that the pilot-scale

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1.3. Value Proposition

Solazyme's value proposition for customers includes:

- *Supply the renewable, scalable, environmentally sustainable,* ***oil-based fuels*** *— including renewable diesel, biodiesel, and jet fuel — that customers want.* Solazyme is not aware of any competing technology that simultaneously satisfies all four of these critical criteria. (See PEP Sections 2.2 and 3.10.) The Energy Information Administration predicts that domestic diesel fuel prices will rise considerably over the next decade, tracking the anticipated trajectory of crude oil, yet wholesale ethanol prices will remain steady or fall in real terms. This stark contrast, which appears to be robust in EIA's model against differing assumptions about the shape of economic recovery, clearly and concisely captures the added value to the customer of converting lignocellulosic biomass to petroleum-equivalent biofuels rather than ethanol.

- *Remain fully compatible with existing petroleum-based infrastructure — including pipelines and other forms of distribution, storage, retailing, and end-use vehicles.* Biofuels refined from Solazyme's algal oil not only displace but also directly *replace* existing petroleum-based fuels. Other biofuels, such as ethanol, imperfectly substitute for petroleum-based fuels. As mandates under the Renewable Fuel Standard (RFS) steadily increase, the amount of ethanol consumed will surpass the amount that can be blended into the domestic gasoline pool as E10 ("the blend wall"). When this occurs in the middle of the next decade, the ability of existing infrastructure to absorb more ethanol will reach an intrinsic limit that will require the nation to make a substantial capital investment to overcome and will require at least some consumers to explicitly choose unfamiliar fuels. At this point, recognition of the value of Solazyme's oil-based technology will increase substantially, enabling direct refining customers to comply with the RFS without the enormous cost of marketing new fuels and enabling indirect downstream customers to continue to utilize existing assets.
- *Deliver high quality and high performance biofuels.* REDACTED EXEMPTION 4 (-5° C)

  Renewable Energy Group, the leading US biodiesel refiner and project team member has stated, "REG has extensive experience in producing biodiesel from a wide variety of feedstock including moringa oleifera, jatropha, camelina and many others. Over the last two years, REG has received algal oil produced by Solazyme, converted the oil to biodiesel in our pilot scale production system and analyzed the quality of the finished product. We have found the final biodiesel quality to be excellent and the performance characteristics to be superior to that of other oils we have converted."

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- *Deliver biofuels with extremely low sulfur content* — less than 1.5 ppm for biodiesel produced to date and less than 2.5 ppm for renewable diesel.
- *Compete on cost with petroleum-derived fuels* — Estimated break-even production cost ranges from ıer gallon of purified algal oil See Section 2.5.

1.4. Justification of Federal Investment

Federal investment in the proposed project is justified because it advances several top-tier national priorities, including energy independence and security, climate and environmental goals, and economic development. Solazyme's value proposition for the collective national interest includes all the points discussed in the previous section and also the following:

- ***Connect the domestic resource potential of renewable, sustainable, high-impact lignocellulosic biomass feedstocks to production of advanced biofuels fungible with petroleum.***

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- *Address a significant fraction of the RFS requirements* — the fast commercialization pathway could potentially result in installed capacity that reaches

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- *Counteract "food vs. fuel" pressures* — Solazyme's process applied to lignocellulosic biomass not only avoids the use of food crops as a feedstock, but will also generate premium quality animal feed as a coproduct, even from biomass sources such as switchgrass.
- *Enhance energy security more than other biofuels* — by not merely displacing petroleum imports, but replacing them with a portfolio of domestic, renewable transportation fuels identical to their petroleum equivalents and fully compatible with existing infrastructure and vehicles.

Solazyme's value propositions that further justify federal investment include:

- *Enhance the value of a wide range of complementary biomass technologies already funded by DOE* — many technically promising technologies that might not be commercially viable producing ethanol (if, as EIA projects, ethanol fails to track crude oil prices upward) may become competitive if linked to Solazyme's back-end process. Solazyme's technology therefore provides a valuable hedge for a significant portion of DOE's lignocellulosic technology portfolio.
- *Deliver against promises* — Solazyme has manufactured over 2,000 gallons of purified algal oil in commercial facilities, limited only by the high cost of tolling. No other microbial biofuel company has achieved this scale with an oil-based fuel. Solazyme has demonstrated multiple refined biofuels that fully comply with applicable ASTM standards. No other microbial biofuel company has demonstrated even one unblended oil-based biofuel that meet *any* standard. Solazyme's diesel fuels have powered an unmodified diesel truck and three cars driven thousands of miles on a mix of blends ranging from 20% to 100% (neat). No other microbial biofuel company has road tested an oil-based fuel in unmodified engines at *any* blend percentage.
- *Leverage existing facilities, substantial private investment, and substantial investments by Solazyme* in R&D activities in parallel with but outside the project scope to maximize return on DOE's investment.
- *Obtain essentially a pilot-scale facility and a demonstration-scale facility for the cost of a pilot project.*
- *Execute a project plan tailored specifically for speed to address the company's commercialization objectives, national RFS goals, and ARRA objectives.*
- *Catapult the technology* — DOE funds will enable Solazyme to consolidate technology validation and demonstrations steps at a critical inflection point, accelerating progress along the commercialization pathway far faster than Solazyme could accomplish without a partnership with DOE. DOE funds will complement and enhance private investment, not replace it, and therefore achieve a large impact.

2. Commercial Vision

2.1. Critical Success Factors for the Commercialization Pathway

Critical success factors (CSFs) for the proposed pilot project (to proceed to commercialization) are discussed in PEP Section 2.1. Further CSFs for the commercialization pathway include:

- Compete on price with fuels derived from petroleum.
- Deliver high quality fuels that identically replace their fossil-fuel equivalents and remain fully compatible with all refining, storage, distribution and retailing infrastructure and existing vehicle fleets.
- Compete on value extracted from lignocellulosic feedstocks compared with other biofuel technologies.
- Assure and encourage supply of biomass feedstocks at attractive prices.
- Forge partnerships with others in the biofuel value chain (including established and emerging fuel refiners and distributors, vehicle manufacturers, feedstock suppliers, and especially companies with technologies to saccharify lignocellulosic feedstocks).
- Raise equity and debt financing after pilot-scale demonstrations to build commercial plants.
- Enable significant reductions in greenhouse gas emissions.
- Monitor, evaluate and incorporate complementary and competing technologies.
- Maintain an agile strategic posture to adapt to evolving technologies and changing market conditions.
- Diligently protect the company's intellectual property and trade secrets.

Specific economic metrics underlying these CSFs are discussed in Sections 2.5-2.6.

2.2. Description of the First Commercial Facility (ComIBR)

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2.3. Partnership Strategy

Solazyme is actively engaging dozens of partners and potential partners that span the entire value chain from biomass to sugar to oil to fuel to consumer, including strategic feedstock growers; universities, national laboratories, and companies with nascent cellulosic conversion technologies; companies that are actively deploying advanced cellulosic conversion technologies such as BlueFire and Abengoa; engineering companies with expertise in building large bioproduction facilities; key equipment vendors; partners that can help accelerate development and demonstration, such as Cherokee; fuel refiners and distributors such as REG, UOP, and Chevron; consumers of coproducts such as EX 4 engine and vehicle manufacturers; airlines; and potential customers with large vehicle fleets. We recognize that we are only one link in this chain and we are already putting in place the agreements necessary to execute our business strategy from end to end.

The most crucial relationships are with front-end cellulosic partners, because each commercial facility will be a permanent marriage with a substantial capital investment into each of the two modules that form

the plant. It is too early for Solazyme to commit to a specific partner for the first ComIBR. That decision will depend on technical questions that will be resolved at SzIBR as well as business considerations. BlueFire and Abengoa represent two diverse and strong candidates. However, Solazyme intends to work with other companies as well, when they are able to demonstrate the ability to provide significant quantities of cellulosic-derived sugars. SzIBR is designed specifically to enable a wide range of diverse collaborations as more demonstration-scale cellulosic facilities come on line, and Period 3 will be devoted exclusively to this objective.

2.4. Commercialization Schedule for the First Commercial Facility

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Figure BCP-1. Summary of early commercialization schedule and the pathway from SzIBR to ComIBR.

2.5. Commercial Products and Sales

ComIBR's primary product, purified algal oil, will be sold to refiners, who will convert it to biodiesel or renewable diesel and then either resell the fuels to a wholesale distributor or distribute it directly. Solazyme expects to negotiate offtake agreements with a fixed price schedule over a term sufficient to pay back the debt portion of ComIBR's financing. Interest in algal biodiesel is extremely high and will almost certainly exceed Solazyme's ability to ramp production for the foreseeable future. Discussions with many of the top US energy and refining companies validate this expectation. While confidentiality agreements preclude disclosing the details of most of these discussions, the interest of Chevron and team member Renewable Energy Group can be mentioned. Chevron Technology Ventures is an investor in Solazyme, and REG, the largest marketer of biodiesel in the US, has expressed strong interest in refining and marketing Solazyme's algal biodiesel.

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2.8. Continuity and Continuous Improvement

Solazyme is investing heavily in R&D to continuously advance and improve its technology platform. Activities both within and outside the scope of the proposed project include:

- *Strain selection and improvement* — Solazyme is continuously improving strains through a combination of classical strain selection, directed evolution and genetic engineering to improve productivity, robustness, and feedstock utilization. These activities will run in parallel with the proposed project and continue thereafter.

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2.9. Outputs and Business Strategies

Solazyme's core business strategy is to leverage heterotrophically grown algae to produce renewable biofuels and chemicals. The proposed project therefore lies directly on the company's critical path. (A secondary business thrust, to produce specialty ingredients such as nutraceuticals, relies on different strains of algae and different handling methods and does not overlap the project.) Team members BlueFire Ethanol, Abengoa Bioenergy, and Renewable Energy Group share a similar focus on renewable biofuels. UOP, a refining technology company with expertise in both conventional petroleum refining and renewable fuels, is investing heavily in biofuels. Cherokee Pharmaceuticals has a strategic business interest in employing its underutilized facility and demonstrating its value as a process development, demonstration, and production center for new biomanufactured products (not necessarily biofuels, but symbiotic with the project).

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2.11. Legal and Regulatory Issues

2.11.1. Proposed Pilot-Scale Project (SzIBR)

Legal and regulatory issues pertaining to the pilot-scale project are discussed in PEP Section 8 and the Environmental Questionnaire.

2.11.2. Forecasted Commercial Facility (ComIBR)

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These issues will be addressed during the planning and construction phases of ComIBR. Engineering design will incorporate elements necessary to ensure compliance with all pertinent ESH and GMP regulations. Key learnings from operation of the pilot SzIBR will be included. All necessary permits will be identified and obtained from the relevant regulatory agencies before construction of the commercial facility commences. Similarly, all necessary operating permits will be identified and obtained before startup of the facility commences. (See Section 4 for further discussion on permits.) The engineering firm that manages the project will take lead responsibility on these permitting issues, with support from Solazyme's engineering and corporate staff.

Formal ESH and GMP policies will be developed by experts then issued by the Plant Manager. Subject matter experts will conduct and carefully document ESH and GMP training of all employees. Plant employees who have been trained to identify areas of non-compliance will conduct periodic inspections and implement corrective actions. Outside agencies such as EPA, OSHA, USDA, and coproduct customers may also conduct occasional inspections. Employees will receive detailed training on the operation of any new equipment or process prior to startup. All new equipment and processes will also be evaluated via HazOp during design phase and via Startup Safety Inspection (SUSI) prior to startup, in order to identify and correct any deficiencies which could potentially risk employee safety or environmental compliance. The Plant HR Manager will have responsibility for employee medical testing (drug screening, hearing tests, periodic physical exams, etc.), record retention, and arrangements with a local hospital for emergency medical treatment. An on-site Emergency Response Team will respond to ESH related incidents and prepare for the arrival of professional responders.