



**United States
Department of
Agriculture**

U.S. DEPARTMENT OF AGRICULTURE

Section 9003 Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program

APPLICATION GUIDE FOR LOAN GUARANTEE

Background

Title IX of The Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) authorizes the Secretary of Agriculture (Secretary) to make loan guarantees for the “development, construction, and retrofitting of commercial-scale biorefineries using eligible technology.” The Program’s authority is continued in the Agricultural Act of 2014 (2014 Farm Bill), with several changes: (1) Renames the Program as the Biorefinery, Renewable Chemical, and Biobased Product Manufacturing Assistance Program; (2) Revises the purpose statement for the Program to include Renewable Chemicals and Biobased Product Manufacturing; (3) Expands the Program to include Biobased Product Manufacturing facilities; (4) Adds definitions for “Renewable Chemicals” and “Biobased Product Manufacturing”; and (5) Ensures diversity in the types of Projects approved.

The Agency has established a two-phase application process. Phase 1 applications will provide information to determine Lender, Borrower, and Project eligibility; preliminary economic and technical feasibility; and the priority score of the application. Based on the priority score ranking, the Agency will invite applicants whose Phase 1 applications receive higher priority scores to submit Phase 2 applications. Phase 2 application materials will be submitted as the Project planning and engineering are finalized and will include an environmental report, technical report, financial model, and the Lender’s credit evaluation. A ranked Phase 1 application that is not invited to submit a Phase 2 application will be carried forward one additional application cycle, which may be in the next fiscal year.

The Program regulations are 7 CFR 4279, subpart C, and 7 CFR 4287, subpart D.

Agency Contacts

Inquiries for additional Program information and questions regarding application requirements or submittal of applications may be directed to (202) 720-0410 or EnergyDivision@wdc.usda.gov.

Definitions and Abbreviations

Terms used in this guide that have the same meanings as the terms defined in 7 CFR Part 4279.202, Definitions and Abbreviations, have been capitalized in this guide.

Application Letter of Intent

Prior to the submission of an application, the Agency requires applicants to inform the Agency by submitting a letter of intent which identifies the Borrower, the Lender, and Project sponsors and may be

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submitted by the Lender or the Borrower. The letter must describe the Project and Project location, proposed feedstock, the primary technologies of the facility, the primary products to be produced, and Total Project Cost estimate. Unless otherwise specified by a Notice in the Federal Register, the letter of intent will be due no later than 30 days prior to the application due dates of April 1 and October 1.

Applications not submitted with a letter of intent may be accepted by the Agency at the Agency's discretion. The letter of intent will enable the Agency to facilitate the submittal of an electronic copy of application materials and enable the Agency to ensure that sufficient resources are available to evaluate all Phase 1 applications in a timely manner.

Application Format and Submittal

All applications must be submitted electronically, with one (1) hard copy, and follow the table of contents and file name formats noted in Appendix A. A font size of 10 or greater is required.

The hard-bound copy shall be paginated, tabbed, and include a table of contents. Electronic files may be sent via a Web-based portal (preferred), e-mail, or on a flash drive, and the hard copy to the address below. If applicants choose to submit documents in Adobe Acrobat, it is recommended that the files be searchable. The format advised for financial information, including the financial model and pro-forma financial statements, is Microsoft Excel.

Hard-bound application materials shall be submitted to:

USDA Rural Business-Cooperative Service
Energy Division, 9003 Program Branch Chief
1400 Independence Avenue SW.
STOP 3225, Room 6901-S
Washington, DC 20250-3225

Phase 1 Application

The Phase 1 application is designed to allow the Agency to evaluate, prioritize, and select applications that will enter the Phase 2 application process. The Phase 1 application must provide adequate information in order to determine Lender, Borrower, and Project eligibility; preliminary economic and technical feasibility of the Project; and priority score of the application. Applications must clearly and accurately identify the pathway or process being used to produce the products, the state of development, and the scale currently deployed. In addition, the applicant must provide a convincing rationale for the project, and the scoring criteria should be supported by statements of fact.

Lenders must submit a complete application for each loan guarantee sought under this subpart. Phase 1 applications, must contain the information specified in 7 CFR Part 4279.161 and summarized below, and be organized pursuant to a table of contents, summarized in Appendix A, in a chapter format as follows:

- (a) **Project Summary.** Tab 1 - Provide a concise summary of the proposed Project and application information, Project purpose and need, and Project goals, including the following:

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- (1) **Title.** Provide a descriptive title of the Project.
 - (2) **DUNS Number.** For Borrowers other than individuals, a Dun and Bradstreet Universal Numbering System (DUNS) number, which can be obtained online at <http://fedgov.dnb.com/webform>, and must be provided on the application.
 - (3) **Borrower Eligibility.** Describe how the Borrower meets the eligibility criteria identified in § 4279.209.
 - (4) **Project Eligibility.** Describe how the Project meets the eligibility criteria identified in § 4279.210. Clearly state if the application is for the construction and development or Retrofitting of a Biorefinery or for the construction and development or Retrofitting of a Biobased Product Manufacturing facility. Additional Project description information will be needed later in the application process.
 - (5) **Project Funds.** Submit a spreadsheet identifying sources, amounts, and availability of funds. The spreadsheet must also include a directory of funds source contact information. Attach any applications, correspondence, or other written communication between the Borrower and fund source.
 - (6) **Project Timeline.** A projected timeline detailing the timeline commencing with the loan application Phase 1, including the loan application Phase 2, final Project planning and engineering, obtaining required permits, loan closing, plant construction, commissioning, and ramp up through stabilized state of operation
- (b) **Application Form.** Tab 2 - Form RD 4279-1 or other Agency-approved application form if specified in a Federal Register notice must be completed by the applicant and the Lender. The applicant's proposed lender must complete and execute Part B. Applications with incomplete Part B will not be accepted and will be returned to the applicant.
- (c) **Financial Statements.** Tab 3 - Financial statements consist of:
- (1) The most recent audited financial statements of the Borrower, unless alternative financial statements are authorized by the Agency and
 - (2) A current (not more than 90 days old) balance sheet and a pro forma balance sheet at startup.
- (d) **Financial Model.** Tab 4 - Submit a financial model in an active electronic format which includes, but is not limited to, a projected Project budget and projected balance sheets, income and expense statements, cash flow statements, and working capital and capital expense projections for not less than the term of the loan. The projections must be displayed in a monthly format for a period of 3 years after stabilized operation and annually thereafter. Projections must be supported by a list of assumptions showing the basis for the projections. Depending on the complexity of the Project and the financial condition of the Borrower, the Agency may require additional financial statements and related information.
- (e) **Feasibility Study.** Tab 5 - The Feasibility Study must be prepared by a qualified, independent third party using information gathered from other qualified parties and documents, such as independent engineer reports, marketing studies, feedstock studies, business plans and financial statements

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prepared by a certified public accountant. The technical feasibility information must indicate the Project's current scale of development; that is, is technology demonstrated at laboratory scale, pilot scale, demonstration scale, or about to be deployed to full-scale production. When a technology is indicated, for example, pyrolysis, it is advisable to indicate whether the process is fast or slow and identify yields.

Any information used to prepare the Feasibility Study must be submitted as attachments. Elements in an acceptable Feasibility Study include, but are not limited to, the elements outlined in Appendix B.

- (f) **Business Plan.** Tab 6 - The Lender must submit the Borrower's business plan that includes the information specified in paragraphs (f)(1) through (10) of Appendix C. Any or all of this information may be omitted if it is included in the Feasibility Study specified in paragraph (e) of this section.
- (g) **Scoring Information.** Tab 7 - The application must contain information in a format that is responsive to the scoring criteria specified in § 4279.266. It is strongly recommended that scoring information be cross-referenced to the portions of the application supporting the score. See Scoring Criteria in Appendix D.
- (h) **Intergovernmental Consultation.** Tab 8 - Intergovernmental consultation comments in accordance with 2 CFR part 415, subpart C, or successor regulation. If assistance is required, please contact the Rural Energy Coordinator in your respective State Office. A list of the coordinators can be found at http://rurdev.sc.egov.usda.gov/BCP_Energy_CoordinatorList.html.
- (i) **Other Information.** Tab 9 - Any other information determined by the Agency to be necessary to evaluate the application.

This Phase 1 process will involve the Agency's screening process of all submitted Projects. In addition to establishing that the Lender and Borrower are proposing an eligible Project, the application's preliminary economic and technical feasibility, financial statements, and business plan will be reviewed, given a priority score, and ranked competitively according to the scoring criteria.

The Agency's review will use the information provided in the application to develop a preliminary credit score. As such, it is imperative that the applicant provide as much credible information as possible with the Phase 1 application.

Applications will be evaluated to confirm eligibility, technical merit, financial merit with reasonable assurance of repayment, sufficient Project equity, and that the Project complies with all applicable statutes and regulations. This process will culminate in a priority ranking score. The highest ranked Projects shall be selected for Phase 2.

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Phase 2 Application

The Agency will notify, in writing, Lenders whose applications have been selected for Phase 2. Phase 2 application materials will be submitted in accordance with 7 CFR Part 4279.261(k) as the project planning and engineering is finalized and will include, as summarized below, a technical report, environmental assessment, financial model, and the Lender's credit evaluation as specified in 7 CFR Part 4279.215.

Phase 2 Application Materials (7 CFR Part 4279.261(k))	
Phase 2 application materials are submitted under the direction of the Agency and may be submitted as the materials are developed or updated.	
1.	Technical Assessment/Technical Report
2.	Environmental Assessment
3.	Updates to application materials, as appropriate
4.	Other information requested by the Agency, including contacts and agreements
5.	Lender's analysis, credit evaluation, and supporting materials
6.	Appraisals
7.	Lender's proposed Loan Agreement
8.	Estimate timing of loan closing and issuance of the Loan Note Guarantee (pre-construction or post-construction)
9.	Credit rating, obtained under the direction of the Agency

- (1) **Technical Assessment/Technical Report** - The technical assessment or technical report must be completed by a qualified independent engineer as outlined in Appendix E in accordance with 7 CFR 4279.161(k)(8). The Agency's determination of a Project's technical feasibility will be based on the technical assessment/report. In addition, authoritative evidence demonstrating 120 days of continuous, steady State production from an integrated demonstration unit must be provided by the Borrower to the Lender and the Agency for review and determination of technical feasibility.

The Agency's determination of a Project's technical feasibility will be based on the technical report. In addition, authoritative evidence demonstrating 120 days of continuous, steady State production from an integrated demonstration unit must be provided by the Borrower to the Lender and the Agency for review and determination of technical feasibility.

Authoritative integrated demonstration campaign results must be provided in 30-day intervals, with a comprehensive Final Technical Report by IE, at the conclusion of the integrated demonstration campaign. The integrated demonstration unit must prove out the Project's ability to utilize Project-relevant biomass and produce Advanced Biofuel, Renewable Chemical, or Biobased Product at a yield, unit production level, quantity, and quality consistent with the design basis of the Project. The

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Borrower must provide to the Agency, for review and approval, sufficient information on the integrated campaign design so as to ensure operation duration, quality, and quantity specifications are met and incorporated into the final design criteria for the commercial facility.

- (2) **Environmental Assessment** - The Environmental Assessment must meet the policies and requirements of the National Environmental Policy Act (NEPA) and the Agency (as specified in Exhibit H of 7 CFR 1940, subpart G.) Guidelines for preparing the Environmental Assessment are available from the Agency. Each proposal will be evaluated to determine the proper level of NEPA review on a case-by-case basis by the Agency's environmental staff. The Lender and Borrower must cooperate with the Agency in the preparation of the environmental review.

A Borrower taking any actions or incurring any obligations prior to, or during application review, that would either limit the range of alternatives to be considered or would have an adverse effect on the environment, such as the initiation of construction, may result in project ineligibility. Therefore, applicants are advised to contact the Agency to determine environmental requirements immediately upon deciding to seek Agency funding.

Applicants shall continuously update environmental information from day one of the process and continue to do so with every change in the Project's course of development.

- (3) **Updates**, as appropriate, to contents of application materials submitted in application Phase 1.
- (4) **Other information** requested by the Agency, including contacts and agreements (feedstock, offtake, engineering, procurement and construction, etc.).
- (5) **Lender's Analysis, Credit Evaluation, and Supporting Materials** - The Lender must analyze all credit factors associated with each proposed loan and apply its professional judgment to determine that the credit factors, considered in combination, ensure loan repayment. The application must adequately address all key risk factors that contribute to the risk and creditworthiness of the Project. The Agency will carefully review the Lender's analysis to assess the Project's strengths and weaknesses.

In addition, the Agency will perform technical, financial, and legal reviews to identify, assess, and estimate the magnitude and impact of risks associated with the Project, the allocation of risk among the parties, and the extent to which risks have been mitigated.

These risk factors include (but are not limited to):

- (a) Debt service and debt structure - debt service coverage, equity contribution, debt maturity, financial covenants, derivatives, and liquidity.
- (b) Project revenue - off-take agreements, counterparty credit, market demand, industry, and competition.
- (c) Technology - commercially available, complexity and scalability, equipment warranties, and guarantees.
- (d) Project sponsor and structure - ownership, equity investment.
- (e) Operational - management team, Agency contract terms, availability of labor, and pass-through.

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- (f) Construction/Completion - EPC contract, cost structure, delay risk, and contingency plans.
 - (g) Legal - ability to ring-fence assets, step-in rights, IP rights, strength of contracts, land leases, and permits, and State and local regulations.
 - (h) Resource/Feedstock - strength and duration of agreements, availability of substitutes.
 - (i) Infrastructure - condition of site and facilities, satisfaction of utility requirements, maintenance and improvement plans.
- (6) **Appraisals** conducted as specified under § 4279.244. The Agency will examine the value of the collateral in detail. This evaluation will be based on the nature of the collateral pledged, appraiser reports submitted by the Lender, and expected cash availability under a default scenario.
- (7) **Proposed Loan Agreement** or a sample Loan Agreement with an attached list of the proposed Loan Agreement provisions detailed below:
- (a) Prohibition against assuming liabilities or obligations of others
 - (b) Restriction on dividend payments
 - (c) Limitation on the purchase or sale of equipment and fixed assets
 - (d) Limitation on compensation of officers and owners
 - (e) Minimum Working Capital or current ratio requirement
 - (f) Maximum debt-to-net worth ratio
 - (g) Restrictions concerning consolidations, mergers, or other circumstances
 - (h) Limitations on selling the business without the concurrence of the Lender
 - (i) Repayment and amortization of the loan
- (8) **Estimate timing of loan closing** and issuance of the Loan Note Guarantee (pre-construction or post-construction).
- (9) **An evaluation and rating** of the total Project's indebtedness, without consideration for a Government guarantee, from a nationally-recognized rating agency obtained under the direction of the Agency.

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Appendix A

Table of Contents

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All applications must be submitted electronically, with one (1) hard copy, and follow the table of contents and file name formats noted here. The hard-bound copy shall be paginated; tabbed; include a cover sheet identifying the Project title, Lender, Borrower; and brief description of the Project. A font size of 10 or greater is required. Electronic files may be sent via a Web-based portal (preferred), e-mail, or on a flash drive.

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Phase 1 Application

7 CFR Part 4279.261 (a) - (j)

(a) Project Summary	Tab 1
(1) Title, including (DUNS number)	Page #
(2) Borrower eligibility	Page #
(3) Project eligibility	Page #
(4) Project funds	Page #
(5) Project timeline	Page #
(b) Application Form	Tab 2
(c) Financial Statements	Tab 3
(1) Audited Financial Statements of the Borrower	Page #
(2) Balance Sheet	Page #
(d) Project Financial Model	Tab 4
(e) Feasibility Study	Tab 5
(f) Business Plan	Tab 6
(g) Scoring Information	Tab 7
(h) Intergovernmental Consultation	Tab 8
(i) DUNS Number (Form RD 4279-1, Part A, Block 13)	
(j) Other Information (Identified and tabbed as needed)	Tab 9

Label electronic files as follows: [Project Name][Application Document].

If the application document consists of multiple files: [Project Name][Application Document]
[Application Document subpart numbered consecutively and subpart title].

Using a Feasibility Study with multiple files, the following are examples of file labels:

Green Fuels Biorefinery Feasibility Study 1 Executive Summary.docx or.pdf
Green Fuels Biorefinery Feasibility Study 2 Economic Feasibility.docx or.pdf
Green Fuels Biorefinery Feasibility Study 3 Market Feasibility.docx or .pdf

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Appendix B

Feasibility Study Outline

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Feasibility Study Components

7 CFR Part 4279.261(e)

- (A) Executive Summary
 - (1) Introduction/Project Overview (brief general overview of Project location, size, etc.)
 - (2) Economic feasibility determination
 - (3) Market feasibility determination
 - (4) Technical feasibility determination
 - (5) Financial feasibility determination
 - (6) Management feasibility determination
 - (7) Recommendations for implementation
- (B) Economic Feasibility
 - (1) Description of feedstock and confirmation that the feedstock is not used elsewhere in the production of Advanced Biofuels or Biobased Products, including Renewable Chemicals. Feedstock:
 - (a) Feedstock source management
 - (b) Estimates of feedstock volumes and costs
 - (c) Collection, pre-treatment, transportation, and storage
 - (d) Feedstock risks
 - (2) Documentation that woody biomass feedstock from National Forest system lands or public lands cannot be used for a higher-value product
 - (3) Impacts on any other similar Biorefineries in the area in which the Borrower proposes to place the Project, defined as the area that will supply the feedstock to the proposed Project, if any
 - (4) Impacts on existing manufacturing plants or other facilities that use similar feedstock if the Borrower's proposed production technology is adopted
 - (5) Projected impact on resource conservation, public health, and the environment
 - (6) Information regarding Project site
 - (7) Availability of trained or trainable labor
 - (8) Availability of infrastructure, including utilities, and rail, air and road service to the site

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- (9) Overall economic impact of the Project, including direct jobs, indirect jobs, additional markets created for agricultural and forestry products and agricultural waste material, and the potential for Rural economic development
- (10) Feasibility/plans of the Project to work with producer associations or cooperatives and the estimated amount of annual feedstock purchased from or sold to producer associations and cooperatives
- (C) Market Feasibility
 - (1) Information on the sales organization and management
 - (2) Nature and extent of market and market area
 - (3) Marketing plans for the sale of projected output-principal products and Byproducts
 - (4) Extent of competition, including other similar facilities, in the market area.
 - (5) Commitments from purchasers of off-take -principal products and secondary products, degree of commitment, duration or terms of Off-Take Agreements, and financial strength of counterparties.
 - (6) Risks related to the industry, including
 - (a) Industry status
 - (b) Specific market risks
 - (c) Competitive threats and advantages
- (D) Technical Feasibility
 - (1) Suitability of the selected site for the intended use
 - (2) Scale of development for which the process technology has been proven (i.e., pilot, demonstration, or Semi-Work Scale Facility). Provide results from pilot, demonstration, or Semi-Work Scale Facilities that prove that the technology proposed is feasible and stands a good chance of being successful. The proposed technology must meet the definition of Eligible Technology.
 - (3) The degree of integration of all processes should be detailed, and a summary of any integrated demonstration unit test results should be submitted.
 - (4) Specific volume produced from the technology of the process (expressed either as volume of feedstock processed [tons per unit of time] or as product [gallons per unit of time])
 - (5) Identification and estimation of Project operation and development costs. Specify the level of accuracy of these estimates and the assumptions on which these estimates have been based. Detailed analysis of Project costs including:
 - (a) Project management and professional services; resource assessment

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- (b) Project design and permitting
 - (c) Land agreements and site preparation
 - (d) Equipment requirements and system installation; startup, and shakedown
 - (e) Warranties, insurance, financing, and operation and maintenance costs
- (6) A projected timeline detailing Borrower plans from the time of loan application through plant construction, commissioning, and ramp up should be included.
- (7) Ability of the proposed system to be commercially replicated
- (8) Risks related to:
 - (a) Construction of the Biorefinery
 - (b) Production of the Advanced Biofuel and Biobased Product, including Renewable Chemical
 - (c) Regulation and governmental action
 - (d) Design-related factors that may affect Project success
 - (e) Technology scale up risk
- (E) Financial Feasibility
 - (1) Reliability of the financial projections and the assumptions on which the financial statements are based, including all sources and uses of Project capital, private or public, Federal and non-Federal funds. Provide detailed analysis and description of projected balance sheets, income and expense statements, and cash flow statements over the useful life of the Project.
 - (2) A detailed description of and the degree financial feasibility is dependent on:
 - (a) Investment incentives
 - (b) Productivity incentives
 - (c) Loans and grants
 - (3) Other Project authorities, RINs value, tax credits, other credits, and subsidies that affect the Project
 - (4) Any constraints or limitations in the financial projections
 - (5) Ability of the business to achieve the projected income and cash flow
 - (6) Assessment of the cost accounting system
 - (7) Availability of short-term credit or other means to meet seasonal business costs
 - (8) Adequacy of raw materials and supplies

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- (9) Sensitivity analysis, including feedstock and energy costs and product and Byproduct prices
- (10) Risks related to:
 - (a) The Project
 - (b) Borrower financing plan
 - (c) The operational units
 - (d) Tax issues
- (F) Management Feasibility
 - (1) Borrower and/or management's previous experience concerning:
 - (a) Production of Advanced Biofuel and Biobased Product, including Renewable Chemicals, as applicable
 - (b) Acquisition of feedstock
 - (c) Marketing and sale of off-take
 - (d) The receipt of Federal financial assistance, including amount of funding, date received, purpose, and outcome
 - (2) Management plan for procurement of feedstock and labor, marketing of the off-take, and management succession
 - (3) Risks related to:
 - (a) Borrower as a company (e.g., development-stage)
 - (b) Conflicts of Interest
 - (c) Management strengths and weaknesses.
- (G) Qualifications

A resume or statement of qualifications of the author and contributors of the Feasibility Study, including prior experience, must be submitted.

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Appendix C

Business Plan Outline

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Business Plan Outline

7 CFR Part 4279.261 (f)

The Lender must submit the Borrower's business plan that includes the information specified below. Any or all of this information may be omitted if it is included in the Feasibility Study.

1. Describe or provide an organizational chart of the Borrower's ownership structure and affiliation with other entities, if any. List the names and a description of the relationship of the Borrower's parent, Affiliates, and subsidiaries. Identify local ownership.
2. The Borrower's succession planning, addressing both ownership and management.
3. The Borrower's experience and management experience.
4. The products and services to be provided and the Borrower's business strategy.
5. Possible vendors and models of major system components.
6. The availability of the resources (e.g., labor, raw materials, supplies) necessary to provide the planned products and services.
7. Site location and its relation to product distribution (e.g., rail lines or highways) and any land use or other permits necessary to operate the facility.
8. The market for the product and its competition, including any and all competitive threats and advantages.
9. Projected balance sheets, income and expense statements, and cash flow statements for a period of not less than 3 years of stabilized operation.
10. A description of the proposed use of funds.

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Appendix D

Scoring Criteria

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Scoring Criteria

7 CFR Part 4279.266

Using the evaluation criteria identified in this section, the Agency will score each eligible application that meets the minimum requirements for technical and economic feasibility. A maximum of 125 points is possible.

(a) Whether the Borrower has established a market for the Advanced Biofuel and the Biobased Products, including Renewable Chemicals, as applicable. A maximum of 20 points can be awarded. Points to be awarded will be determined as follows:

(1) Degree of commitment of Off-Take Agreements. A maximum of 6 points will be awarded.

(i) If the Borrower has signed Off-Take Agreements for the purchase for greater than 50 percent of the dollar value of off-take, 6 points will be awarded.

(ii) If the Borrower has signed letters of intent to enter into Off-Take Agreements, or comparable documentation, for the purchase for greater than 50 percent of the dollar value of off-take, or combination of signed contracts or agreements and letters of intent or comparable documentation, 4 points will be awarded.

(iii) If the Borrower has signed letters of interest to enter into Off-Take Agreements, or comparable documentation, for the purchase for greater than 50 percent of the dollar value of off-take, or combination of signed Off-Take Agreements, letters of intent, letters of intent or comparable documentation, 2 points will be awarded.

(1) Degree of commitment of Off-Take Agreements. Points awarded: _____/6

(2) Duration of Off-Take Agreements. A maximum of 6 points will be awarded.

(i) If the Borrower commits to enter into Off-Take Agreements prior to loan closing for the purchase for greater than or equal to 50 percent of the dollar value of off-take for the period not less than the loan term, 6 points will be awarded.

(ii) If the Borrower commits to enter into Off-Take Agreements prior to loan closing for the purchase for greater than or equal to 50 percent of the dollar value of off-take for the period not less than 5 years but less than the term of the loan, 4 points will be awarded.

(iii) If the Borrower commits to enter into Off-Take Agreements prior to loan closing for the purchase for greater than or equal to 50 percent of the dollar value of off-take for the period not less than 1 year but less than 5 years, 2 points will be awarded.

(2) Duration of Off-Take Agreements. Points awarded: _____/6.

(3) Financial strength of the off-take counterparty. A maximum of 4 points will be awarded.

(i) If the Borrower commits to enter into Off-Take Agreements prior to loan closing for purchase for greater than or equal to 50 percent of the dollar value of off-take with an

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off-take counterparty with a corporate credit rating not less than AA, Aa2, or equivalent, 4 points will be awarded.

(ii) If the Borrower commits to enter into Off-Take Agreements prior to loan closing for the purchase for greater than or equal to 50 percent of the dollar value of off-take with an off-take counterparty with a corporate credit rating less than AA, Aa2, or equivalent, but not less than A-, or A3, or equivalent, 2 points will be awarded.

(iii) If the Borrower commits to enter into Off-Take Agreements prior to loan closing for the purchase for greater than or equal to 50 percent of the dollar value of off-take with an off-take counterparty with a corporate credit rating less than A-, or A3, or equivalent, but not less than BBB-, or Baa3, or equivalent, 1 point will be awarded.

(3) Financial strength of the off-take counterparty. Points awarded: _____ /4.

(4) Revenue dependency on sales tax credits, carbon credits, or other Federal or State subsidies. A maximum of 4 points will be awarded.

(i) If the total of revenues from tax credits, carbon credits, or other Federal or State subsidies is less than or equal to 10 percent of the Project's total revenues on an annual basis, in the Borrower's base case of financial projections, 4 points will be awarded.

(ii) If the total of revenues from tax credits, carbon credits, or other Federal or State subsidies is greater than 10 percent but less than or equal to 20 percent of the Project's total revenues on an annual basis, in the Borrower's base case of financial projections, 2 points will be awarded.

(iii) If the total of revenues from tax credits, carbon credits, or other Federal or State subsidies is greater than 20 percent but less than or equal to 30 percent of the Project's total revenues on an annual basis, in the Borrower's base case of financial projections, 1 point will be awarded.

(4) Revenue dependency on subsidies. Points awarded: _____ /4.

(b) Whether the area in which the Borrower proposes to place the Project, defined as the area that will supply the feedstock to the proposed Project, has any other similar facilities. A maximum of 5 points can be awarded. Points to be awarded will be determined as follows:

(1) If the area that will supply the feedstock to the proposed Project does not have any other similar facilities, 5 points will be awarded.

(2) If there are other similar facilities located within the area that will supply the feedstock to the proposed Project, 0 points will be awarded.

(b) Does the area have similar facilities? Points awarded: _____ /5.

(c) Whether the Borrower is proposing to use a feedstock or biobased output of Biorefineries not previously used in the production of Advanced Biofuels or Biobased Product, including Renewable Chemicals. A maximum of 10 points can be awarded. Points to be awarded will be determined as follows:

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(1) If the Borrower proposes to use a feedstock previously used in the production of Advanced Biofuels and Biobased Product, including Renewable Chemicals in a commercial facility, 0 points will be awarded.

(2) If the Borrower proposes to use a feedstock not previously used in the production of Advanced Biofuels and Biobased Product, including Renewable Chemicals, in a commercial facility, 10 points will be awarded.

(c) Output not previously used **Points awarded:** _____/10.

(d) Whether the Borrower is proposing to work with producer associations or cooperatives. A maximum of 5 points can be awarded. Points to be awarded will be determined as follows:

(1) If at least 50 percent of the dollar value of feedstock to be used by the proposed Project will be supplied by producer associations and cooperatives, 5 points will be awarded.

(2) If at least 30 percent of the dollar value of feedstock to be used by the proposed Project will be supplied by producer associations and cooperatives, 3 points will be awarded.

(d) Producer associations or cooperatives **Points awarded:** _____/5.

(e) The level of financial participation by the Borrower, including support from non-Federal Government sources and private sources. A maximum of 20 points can be awarded. Points to be awarded will be determined as follows:

(1) If the sum of the loan amount requested and other direct Federal funding is less than or equal to 50 percent of the total Eligible Project Cost, 20 points will be awarded.

(2) If the sum of the loan amount requested and other direct Federal funding is greater than 50 percent but less than or equal to 55 percent of the total Eligible Project Cost, 16 points will be awarded.

(3) If the sum of the loan amount requested and other direct Federal funding is greater than 55 percent but less than or equal to 60 percent of the total Eligible Project Cost, 12 points will be awarded.

(4) If the sum of the loan amount and other direct Federal funding is greater than 60 percent but less than or equal to 65 percent of total Eligible Project Cost, 8 points will be awarded.

(5) If the sum of the loan amount and other direct Federal funding is greater than 65 percent but less than or equal to 70 percent of the total Eligible Project Cost, 4 points will be awarded.

(e) Non-Federal Government sources. **Points awarded:** _____/20.

(f) Whether the Borrower has established that the adoption of the process proposed in the application will have a positive effect on three impact areas: resource conservation (e.g., water, soil, forest), public health (e.g., potable water, air quality), and the environment (e.g., compliance with an applicable renewable fuel standard, greenhouse gases, emissions, particulate matter). A maximum of 10 points can be awarded. Based on what the Borrower has provided in either the application or the Feasibility Study, points to be awarded will be determined as follows:

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(1) If process adoption will have a positive impact on any one of the three impact areas (resource conservation, public health, or the environment), 3 points will be awarded.

(2) If process adoption will have a positive impact on two of the three impact areas, 6 points will be awarded.

(3) If process adoption will have a positive impact on all three impact areas, 10 points will be awarded.

(4) If the Project proposes to use a feedstock that can be used for human or animal consumption, 5 points will be deducted from the score.

(f) Positive effect on three impact areas. **Points awarded:** _____/10.

(g) Whether the Borrower can establish that, if adopted, the technology proposed in the application will not have any economically significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks or biobased outputs of Biorefineries. A maximum of 5 points can be awarded. Points to be awarded will be determined as follows:

(1) If the Borrower has failed to establish, through an independent third-party Feasibility Study, that the production technology proposed in the application, if adopted, will not have any economically significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks, 0 points will be awarded.

(2) If the Borrower has established, through an independent third-party Feasibility Study, that the production technology proposed in the application, if adopted, will not have any economically significant negative impacts on existing manufacturing plants or other facilities that use similar feedstocks, 5 points will be awarded.

(3) If the feedstock is wood pellets, 0 points will be awarded under this criterion.

(g) Economically significant negative impacts. **Points awarded:** _____/5.

(h) The potential for Rural economic development. A maximum of 20 points will be awarded. Points to be awarded will be determined as follows:

(1) If the Project is located in a Rural Area, 5 points will be awarded.

(2) If the Project creates jobs through direct employment with an average wage that exceeds the County median household wages where the Project will be located, 5 points will be awarded.

(3) If the majority of feedstock to be utilized by the Project, on an annual basis, is harvested from the land, 10 points will be awarded.

(h) Rural economic development. **Points awarded:** _____/20.

(i) The level of local ownership of the facility proposed in the application. A maximum of 5 points can be awarded. Points to be awarded will be determined as follows:

(1) If Local Owners have an ownership interest in the facility of more than 20 percent but less than or equal to 50 percent, 3 points will be awarded.

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(2) If Local Owners have an ownership interest in the facility of more than 50 percent, 5 points will be awarded.

(i) Local ownership. Points awarded: _____ /5.

(j) Whether the Project can be replicated. A maximum of 10 points can be awarded. Points to be awarded will be determined as follows:

(1) If the Project can be commercially replicated regionally (e.g., Northeast, Southwest, etc.), 5 points will be awarded.

(2) If the Project can be commercially replicated nationally, 10 points will be awarded.

(j) Project can be replicated. Points awarded: _____ /10.

(k) If the Project uses a particular technology, system, or process that is not currently operating at Commercial Scale as of October 1 of the fiscal year for which the funding is available, 5 points will be awarded.

(k) Uses a particular technology. Points awarded: _____ /5.

(l) The Administrator can award up to a maximum of 10 bonus points:

(1) To ensure, to the extent practical, there is diversity in the types of Projects approved for loan guarantees to ensure ***as wide a range as possible technologies, products, and approaches are assisted in the Program portfolio and***

(2) To applications that promote partnerships and other activities that assist in the development of new and emerging technologies for the development of Advanced Biofuels and Biobased Products, including Renewable Chemicals, so as to, as applicable, increase the energy independence of the United States or reduce our dependence on petroleum-based chemicals and products; promote resource conservation, public health, and the environment; diversify markets for agricultural and forestry products and agriculture waste material; and create jobs and enhance the economic development of the Rural economy. These partnerships and other activities will be identified in a Federal Register notice each fiscal year.

(l) Administrator award. Points awarded: _____ /10.

TOTAL POINTS SCORED: _____ /125.

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Appendix E

Technical Assessment

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Technical Assessment/Technical Report

7 CFR Part 4279.261(k)(8)

The technical assessment must be completed by a qualified independent engineer and must demonstrate that the design, procurement, installation, startup, operation, and maintenance of the Project will permit it to operate or perform as specified over its useful life in a reliable and a cost effective manner and must identify the useful life of the Project. The technical assessment must also identify all necessary Project agreements, demonstrate that those agreements will be in place at or before the time of loan closing, and demonstrate that necessary Project equipment and services will be available over the useful life of the Project. The technical assessment must be based upon verifiable data and contain sufficient information and analysis so that a determination can be made on the technical feasibility of achieving the levels of income or production that are projected in the financial statements. All technical information provided must follow the format specified in paragraphs (i) through (ix) below. Supporting information may be submitted in other formats. Design drawings and process flow charts are required as exhibits. A discussion of a topic identified in paragraphs (i) through (ix) of this section is not necessary if the topic is not applicable to the specific Project. Questions identified in the Agency's technical review of the Project must be answered to the Agency's satisfaction before the application will be approved. All Projects require the services of an independent, third-party professional engineer.

(i) **Qualifications of Project team.** The Project team will vary according to the complexity and scale of the Project. The Project team must have demonstrated expertise in similar Advanced Biofuel and Biobased Product, including Renewable Chemical as applicable; technology development; engineering; installation; and maintenance. Identify Borrower's, including its principals', prior experience in bioenergy projects and the receipt of Federal financial assistance, including the amount of funding, date received, purpose, and outcome for such projects. Authoritative evidence that Project team service providers have the necessary professional credentials or relevant experience to perform the required services for the development, construction, and Retrofitting, as applicable, of technology for producing Advanced Biofuels and Biobased Products, including Renewable Chemicals, if applicable, must be provided. In addition, authoritative evidence that vendors of proprietary components can provide necessary equipment and spare parts for the facility to operate over its useful life must be provided. The application must:

(A) Discuss the proposed Project delivery method. Such methods include a design-bid-build method, where a separate engineering firm may design the Project and prepare a request for bids and the successful bidder constructs the Project at the Borrower's risk, and a design-build method, often referred to as "turnkey," where the Borrower establishes the specifications for the Project and secures the services of a developer who will design and build the Project at the developer's risk;

(B) Discuss the manufacturers of major components of Advanced Biofuels and Biobased Product, including Renewable Chemical, technology equipment being considered in terms of the length of time in business and the number of units installed at the capacity and scale being considered;

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(C) Discuss the Project team members' qualifications for engineering, designing, and installing similar projects, including any relevant certifications by recognized organizations or bodies. Provide a list of the same or similar projects designed, installed, or supplied and currently operating, with references if available; and

(D) Describe the facility operator's qualifications and experience for servicing, operating, and maintaining such equipment or projects. Provide a list of the same or similar projects designed, installed, or supplied and currently operating, with references if available.

(ii) **Agreements and permits.** The application must identify all necessary agreements and permits required for the Project and the status and schedule for securing those agreements and permits, including the items specified in paragraphs (k)(8)(ii)(A) through (F) of this section.

(A) All facilities funded under this subpart must be installed in accordance with applicable local, State, and national codes and applicable local, State, and Federal regulations. Identify zoning and code requirements and necessary permits and the schedule for meeting those requirements and securing permits.

(B) Identify licenses where required and the schedule for obtaining those licenses.

(C) Identify land use agreements required for the Project, the schedule for securing those agreements, and the term of those agreements.

(D) Identify any permits or agreements required for solid, liquid, and gaseous emissions or effluents and the schedule for securing those permits and agreements.

(E) Identify available component warranties for the specific Project location and size.

(F) Identify all environmental issues, including environmental compliance issues, associated with the Project.

(iii) **Resource assessment.** The application must provide adequate and appropriate evidence of the availability of the feedstocks required for the facility to operate as designed. Indicate the type and quantity of the feedstock, and discuss storage of the feedstock, where applicable, and competing uses for the feedstock. Indicate shipping or receiving methods and required infrastructure for shipping and other appropriate transportation mechanisms, including methods and systems to prevent the spread of invasive species. For proposed Projects with an established resource, provide a summary of the resource.

(iv) **Design and engineering.** The application must provide authoritative evidence that the facility will be designed and engineered so as to meet its intended purposes, ensure public safety, and comply with applicable laws, regulations, agreements, permits, codes, and standards. Projects shall be engineered by a qualified entity. Each facility must be engineered as a complete, integrated facility. The engineering must be comprehensive, including site selection, systems and component selection, and systems monitoring equipment. All Projects funded under this subpart must be constructed by a qualified entity.

(A) The application must include a concise but complete description of the Project, including location of the Project; resource characteristics, including the kind and amount of feedstocks; facility specifications; kind, amount, and quality of the output; and monitoring equipment. Address

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performance on a monthly and annual basis. Describe the uses of or the market for the Advanced Biofuels and Biobased Product, including Renewable Chemical, produced by the facility. Discuss the impact of reduced or interrupted feedstock availability on the facility's operations.

(B) The application must include:

- (1) A description of the Project site that addresses issues, such as site access, foundations, and backup equipment when applicable;
- (2) A completed Form RD 1940-20 and an environmental assessment prepared in accordance with Exhibit H of 7 CFR part 1940, subpart G; and
- (3) Identification of any unique construction and installation issues.

(C) Sites must be controlled by the eligible Borrower for at least the financing term of the Loan Note Guarantee.

(v) **Project development schedule.** The application must describe each significant task, its beginning and end, and its relationship to the time needed to initiate and carry the Project through startup and shakedown. Provide a detailed description of the Project timeline, including resource assessment, Project and site design, permits and agreements, equipment procurement, and Project construction from excavation through startup and shakedown.

(vi) **Equipment procurement.** The application must demonstrate that equipment required by the facility is available and can be procured and delivered within the proposed Project development schedule. Projects funded under this subpart may be constructed of components manufactured in more than one location. Provide a description of any unique equipment procurement issues, such as scheduling and timing of component manufacture and delivery, ordering, warranties, shipping, receiving, and on-site storage or inventory.

(vii) **Equipment installation.** The application must provide a full description of the management of and plan for site development and systems installation, details regarding the scheduling of major installation equipment needed for Project construction, and a description of the startup and shakedown specification and process and the conditions required for startup and shakedown for each equipment item individually and for the facility as a whole.

(viii) **Operations and maintenance.** The application must provide the operations and maintenance requirements of the facility necessary for the facility to operate as designed over its useful life. The application must also include:

- (A) Information regarding available facility and component warranties and availability of spare parts;
- (B) A description of the routine operations and maintenance requirements of the proposed facility, including maintenance schedules for the mechanical, piping, and electrical systems and system monitoring and control requirements, as well as the provision of information that supports expected useful life of the facility and timing of major component replacement or rebuilds;

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(C) A discussion of the costs and labor associated with operating and maintaining the facility and plans for in-sourcing or outsourcing. A description of the opportunities for technology transfer for long-term Project operations and maintenance by a local entity or owner/operator; and

(D) Provision and discussion of the risk management plan for handling large, unanticipated failures of major components.

(ix) **Decommissioning.** A description of the decommissioning process, when the Project must be uninstalled or removed. A description of any issues, requirements, and costs for removal and disposal of the facility.

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Appendix F

Environmental Assessment

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USDA
Form RD 1940-20
(Rev. 4-06)

Position 3

FORM APPROVED
OMB No. 0575-0094

REQUEST FOR ENVIRONMENTAL INFORMATION

Name of Project

Location

Item 1a. Has a Federal, State, or Local Environmental Impact Statement or Analysis been prepared for this project?

☐ Yes ☐ No ☐ Copy attached as EXHIBIT I-A.

1b. If "No," provide the information requested in Instructions as EXHIBIT I.

Item 2. The State Historic Preservation Officer (SHPO) has been provided a detailed project description and has been requested to submit comments to the appropriate Rural Development Office. ☐ Yes ☐ No Date description submitted to SHPO

Item 3. Are any of the following land uses or environmental resources either to be affected by the proposal or located within or adjacent to the project site(s)? (Check appropriate box for every item of the following checklist).

	Yes	No	Unknown		Yes	No	Unknown
1. Industrial.....	☐	☐	☐	19. Dunes.....	☐	☐	☐
2. Commercial.....	☐	☐	☐	20. Estuary.....	☐	☐	☐
3. Residential.....	☐	☐	☐	21. Wetlands.....	☐	☐	☐
4. Agricultural.....	☐	☐	☐	22. Floodplain.....	☐	☐	☐
5. Grazing.....	☐	☐	☐	23. Wilderness.....	☐	☐	☐
6. Mining, Quarrying.....	☐	☐	☐	(designated or proposed under the Wilderness Act)			
7. Forests.....	☐	☐	☐	24. Wild or Scenic River.....	☐	☐	☐
8. Recreational.....	☐	☐	☐	(proposed or designated under the Wild and Scenic Rivers Act)			
9. Transportation.....	☐	☐	☐	25. Historical, Archeological Sites.....	☐	☐	☐
10. Parks.....	☐	☐	☐	(Listed on the National Register of Historic Places or which may be eligible for listing)			
11. Hospital.....	☐	☐	☐	26. Critical Habitats.....	☐	☐	☐
12. Schools.....	☐	☐	☐	(endangered/threatened species)			
13. Open spaces.....	☐	☐	☐	27. Wildlife.....	☐	☐	☐
14. Aquifer Recharge Area.....	☐	☐	☐	28. Air Quality.....	☐	☐	☐
15. Steep Slopes.....	☐	☐	☐	29. Solid Waste Management.....	☐	☐	☐
16. Wildlife Refuge.....	☐	☐	☐	30. Energy Supplies.....	☐	☐	☐
17. Shoreline.....	☐	☐	☐	31. Natural Landmark.....	☐	☐	☐
18. Beaches.....	☐	☐	☐	(Listed on National Registry of Natural Landmarks)			
				32. Coastal Barrier Resources System.....	☐	☐	☐

Item 4. Are any facilities under your ownership, lease, or supervision to be utilized in the accomplishment of this project, either listed or under consideration for listing on the Environmental Protection Agency's List of Violating Facilities? ☐ Yes ☐ No

(Date)

Signed:

(Applicant)

(Title)

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0575-0094. The time required to complete this information collection is estimated to average 6 to 10 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

RD Instruction 1940-G, Exhibit H

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Environmental Assessment for Class II Actions

In completing this assessment, it is important to understand the comprehensive nature of the impacts which must be analyzed. Consideration must be given to all potential impacts associated with the construction of the Project, its operation and maintenance, the operation of all identified primary beneficiaries, and the attainment of the Project's major objectives, whether they be an increased housing stock, community improvement, economic development, or greater agricultural productivity. This last category, the attainment of the Project's major objectives, often induces or supports changes in population densities, land uses, community services, transportation systems, and resource consumption. The scope of the assessment is broadened even further when there are related activities involved. The impacts of these activities must also be assessed.

The preparer will consult as indicated in §1940.318(b) of this Subpart with appropriate experts from Federal, State, and local agencies, universities, and other organizations or groups whose views could be helpful in the assessment of potential impacts. In so doing, each discussion which is utilized in reaching a conclusion with respect to the degree of an impact will be summarized in the assessment as accurately as possible and include the name, title, telephone number, and organization of the individual contacted, plus the date of contact. Related correspondence should be attached to the assessment.

The Agency's environmental assessment shall be prepared in the following format. It shall address the listed items and questions and contain as attachments the indicated descriptive materials, as well as the environmental information submitted by the applicant, Form RD 1940-20, "Request for Environmental Information."

The assessment has been designed to cover the wide variety of Projects and environments with which the Agency deals. Consequently, not every issue or potential impact raised in the assessment may be relevant to each Project. The purpose of the format is to give the preparer an understanding of a standard range of impacts, environmental factors, and issues which may be encountered. In preparing an assessment, each topic heading identified by a Roman numeral and each environmental factor listed under topic heading IV, such as air quality, for example, must be addressed.

The amount of analysis and material that must be provided will depend upon the type and size of the Project, the environment in which it is located, and the range and complexity of the potential impacts. The amount of analysis and detail provided, therefore, must be commensurate with the magnitude of the expected impact. The analysis of each environmental factor (i.e., water quality) must be taken to the point that a conclusion can be reached and supported concerning the degree of the expected impact with respect to that factor.

For example, a small community center may not require detailed information on air emissions or solid waste management, but an industrial facility would. Similarly, an irrigation Project for a farming operation would concentrate on such factors as water quality and fish and wildlife, rather than land use changes. The extension of a water or sewer system or the approval of a subdivision, on the other hand, would have to give close attention to all factors, with potential land use changes being a particularly important one.

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I. Project Description and Need

Identify the name, Project number, location, and specific elements of the Project, along with their sizes, and, when applicable, their design capacities. Indicate the purpose of the Project, the Agency's position regarding the need for it, and the extent or area of land to be considered as the Project site.

II. Primary Beneficiaries and Related Activities

Identify any existing businesses or major developments that will benefit from the Project and those which will expand or locate in the area because of the Project. Specify by name, product, service, and operations involved.

Identify any related activities which are defined as interdependent parts of an Agency action. Such undertakings are considered interdependent parts whenever they either make possible or support the Agency's action or are themselves induced or supported by the Agency's action or another related activity. These activities may have been completed in the very recent past and are now operational, or they may reasonably be expected to be accomplished in the near future. Related activities may or may not be federally permitted or assisted. When they are, identify the involved Federal agency(s).

In completing the remainder of the assessment, it must be remembered that the impacts to be addressed are those which stem from the project, the primary beneficiaries, and the related activities.

III. Description of Project Area

Describe the project site and its present use. Describe the surrounding land uses; indicate the directions and distances involved. The extent of the surrounding land to be considered depends on the extent of the impacts of the Project, its related activities, and the primary beneficiaries. Unique or sensitive areas must be pointed out. These include residential, schools, hospitals, recreational, historical sites, beaches, lakes, rivers, parks, floodplains, wetlands, dunes, estuaries, barrier islands, natural landmarks, unstable soils, steep slopes, aquifer recharge areas, important farmlands and forestlands, prime rangelands, endangered species habitats, or other delicate or rare ecosystems.

Attach adequate location maps of the Project area, as well as (1) a U.S. Geological Survey "15 minute" ("7-1/2 minute," if available,) topographic map which clearly delineates the area and the location of the Project elements, (2) the Department of Housing and Urban Development's floodplain map(s) for the Project area, (3) site photos, (4) if completed, a standard soil survey for the Project, and (5) if available, an aerial photograph of the site. When necessary for descriptive purposes or environmental analysis, include land use maps or other graphic information. All graphic materials shall be of high quality resolution.

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IV. Environmental Impact

1. **Air Quality** - Discuss, in terms of the amounts and types of emissions to be produced, all aspects of the Project, including beneficiaries' operations and known indirect effects (such as increased motor vehicle traffic), which will affect air quality. Indicate the existing air quality in the area. Indicate if topographical or meteorological conditions hinder or affect the dispersal of air emissions. Evaluate the impact on air quality given the types and amounts of projected emissions, the existing air quality, and topographical and meteorological conditions. Discuss the Project's consistency with the State's air quality implementation plan for the area, the classification of the air quality control region within which the Project is located, and the status of compliance with air quality standards within that region. Cite any contacts with appropriate experts and agencies which must issue necessary permits.

Indicate whether silvicultural, agricultural or other operations will employ open burning. If so, discuss whether local or State requirements exist for permitting such burning and generally discuss their content. If no permit requirements exist, discuss the type and quantity of burning to be undertaken and the methods to reduce smoke and mitigate its adverse impacts.

2. **Water Quality** - Discuss, in terms of amounts and types of effluents, all aspects of the Project, including primary beneficiaries' operations and known indirect effect, which will affect water quality. Indicate the existing water quality of surface and/or underground water to be affected. Evaluate the impacts of the Project on this existing water quality. Indicate if an aquifer recharge area is to be adversely affected. If the Project lies within or will affect a sole source aquifer recharge area as designated by the Environmental Protection Agency (EPA), contact the appropriate EPA regional office to determine if its review is necessary. If it is, attach the results of its review.

Indicate the source and available supply of raw water and the extent to which the additional demand will affect the raw water supply. Describe the wastewater treatment system(s) to be used and indicate their capacity and their adequacy in terms of the degree of treatment provided. Discuss the characteristics and uses of the receiving waters for any sources of discharge. If the treatment system(s) are or will be inadequate or overloaded, describe the steps being taken for necessary improvements and their completion dates. Compare such dates to the completion date of the Agency's project. Analyze the impacts on the receiving water during any estimated period of inadequate treatment.

Discuss the Project's consistency with the water quality planning for the area, such as EPA's Section 208 area wide waste treatment management plan. Discuss the Project's consistency with applicable State water quality standards to include a discussion of whether or not the project would either impair any such standard or fail to meet antidegradation requirements for point or nonpoint sources. Describe how surface runoff is to be handled and the effect of erosion on streams.

Evaluate the extent to which the Project may create shortages for or otherwise adversely affect the withdrawal capabilities of other present users of the raw water supply, particularly in terms of possible human health, safety, or welfare problems.

For Projects utilizing a groundwater supply, evaluate the potential for the Project to exceed the safe pumping rate for the aquifer to the extent that it would (1) adversely affect the pumping capability of

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present users; (2) increase the likelihood of brackish or saltwater intrusion, thereby decreasing water quality; or (3) substantially increase surface subsidence risks. For Projects utilizing a surface water supply, evaluate the potential for the Project to (1) reduce flows below the minimum required for the protection of fish and wildlife or (2) reduce water quality standards below those established for the stream classification at the point of withdrawal or the adjacent downstream section.

Cite contacts with appropriate experts and agencies that must issue necessary permits.

3. Solid Waste Management - Indicate all aspects of the Project, including primary beneficiaries' operations, and known indirect effects which will necessitate the disposal of solid wastes. Indicate the kinds and expected quantities of solid wastes involved and the disposal techniques to be used. Evaluate the adequacy of these techniques, especially in relationship to air and water quality. Indicate if recycling or resource recovery programs are or will be used. Cite any contacts with appropriate experts and agencies that must issue necessary permits.

4. Land Use - Given the description of land uses as previously indicated, evaluate (1) the effect of changing the land use of the Project site and (2) how this change in land use will affect the surrounding land uses and those within the Project's area of environmental impact. Particularly address the potential impacts to those unique or sensitive areas discussed under Section III, Description of Project Area, which are not covered by the specific analyses required in Sections V-XI. Describe the existing land use plan and zoning restrictions for the Project area. Evaluate the consistency of the Project and its impacts with these plans. For all actions subject to the requirements of Exhibit M of this subpart, indicate (1) whether or not highly erodible land, wetland or converted wetland is present, (2) if any exemption(s) applies to the requirements of Exhibit M, (3) the status of the applicant's eligibility for an Agency loan under Exhibit M and (4) any steps the applicant must take prior to loan approval to retain or regain its eligibility. Attach a completed copy of Form SCS-CPA-26, "Highly Erodible Land and Wetland Conservation Determination," for the action.

5. Transportation - Describe available facilities, such as highways and rail. Discuss whether the Project will result in an increase in motor vehicle traffic and the existing road's ability to safely accommodate this increase. Indicate if additional traffic control devices are to be installed. Describe new traffic patterns which will arise because of the project. Discuss how these new traffic patterns will affect the land uses described above, especially residential, hospitals, schools, and recreational. Describe the consistency of the Project's transportation impacts with the transportation plans for the area and any air quality control plans. Cite any contact with appropriate experts.

6. Natural Environment - Indicate all aspects of the Project, including construction, beneficiaries' operations, and known indirect effects which will affect the natural environment, including wildlife, their habitats, and unique natural features. Cite contacts with appropriate experts. If an area listed on the National Registry of Natural Landmarks may be affected, consult with the Department of Interior and document these consultations and any agreements reached regarding avoidance or mitigation of potential adverse impacts.

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7. **Human Population** - Indicate the number of people to be relocated and arrangements being made for this relocation. Discuss how impacts resulting from the Project, such as changes in land use, transportation changes, air emissions, noise, odor, etc., will affect nearby residents and users of the Project area and surrounding areas. Discuss whether the proposal will accommodate any population increases and, if so, describe the potential impacts of these increases on the area's public and community services, such as schools, health care, social services, and fire protection. Cite contacts with appropriate experts.
8. **Construction** - Indicate the potential effects of construction of the Project on air quality, water quality, noise levels, solid waste disposal, soil erosion, and siltation. Describe the measures that will be employed to limit adverse effects. Give particular consideration to erosion, stream siltation, and clearing operations.
9. **Energy Impacts** - Indicate the Project's and its primary beneficiaries' effects on the area's existing energy supplies. This discussion should address not only the direct energy utilization but any major indirect utilization resulting from the siting of the Project. Describe the availability of these supplies to the Project site. Discuss whether the Project will utilize a large share of the remaining capacity of an energy supply or will create a shortage of such supply. Discuss any steps to be taken to conserve energy.
10. Discuss any of the following areas which may be relevant: noise, vibrations, safety, seismic conditions, fire-prone locations, radiation, and aesthetic considerations. Cite any discussion with appropriate experts.

V. Coastal Zone Management Act (Complete only if coastal or Great Lakes State.)

Indicate if the project is within or will impact a coastal area defined as such by the State's approved Coastal Zone Management Program. If so, consult with the State agency responsible for the Program to determine the project's consistency with it. The results of this coordination shall be included in the assessment and considered in completing the environmental impact determination and environmental findings (Item XXI below).

VI. Compliance with Advisory Council on Historic Preservation's Regulations

In this Section, the preparer shall detail the steps taken to comply with the above regulations as specified in Subpart F of Part 1901 of this Chapter. First, indicate that the National Register of Historic Places, including its monthly supplements, has been reviewed and whether there are any listed properties located within the area to be affected by the Project. Second, indicate the steps taken, such as historical/archaeological surveys, to determine if there are any properties eligible for listing located within the affected area. Summarize the results of the consultation with the State Historic Preservation Officer (SHPO), and attach appropriate documentation of the SHPO's views. Discuss the views of any other experts contacted. Based upon the above review process and the views of the SHPO, state whether or not an eligible or listed property will be affected.

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If there will be an effect, discuss all of the steps and protective measures taken to complete the Advisory Council's regulations. Describe the affected property and the nature of the effect. Attach to the assessment the results of the coordination process with the Advisory Council on Historic Preservation.

VII. Compliance with the Wild and Scenic Rivers Act

Indicate whether the Project will affect a river or portion of it which is either included in the National Wild and Scenic Rivers System or designated for potential addition to the system. This analysis shall be conducted through discussions with the appropriate regional office of the National Park Service, or the Forest Service when its lands are involved, as well as the appropriate State agencies having implementation authorities. See Exhibit E for specific implementation instructions for this Act. A summary of discussions held or any required formal coordination shall be included in the assessment and considered in completing the environmental impact determination and environmental findings (Item XXI below).

VIII. Compliance with the Endangered Species Act

Indicate whether the project will either (1) affect a listed endangered or threatened species or critical habitat or (2) adversely affect a proposed critical habitat for an endangered or threatened species or jeopardize the continued existence of a proposed endangered or threatened species. This analysis will be conducted in consultation with the Fish and Wildlife Service and the National Marine Fisheries Service, when appropriate. Any formal or informal consultations conducted with these agencies, as well as any State wildlife protection agency, will also address impacts to Category I and Category II species. See Exhibit D of this subpart for specific implementation instructions.

The results of any required coordination shall be included in the assessment, along with any completed biological opinion and mitigation measures to be required for the Project. These factors shall be considered in completing the environmental impact determination.

IX. Compliance with Farmland Protection Policy Act, SCS's Implementation Rule, and Departmental Regulation 9500-3, Land Use Policy

Indicate whether the Project will either directly or indirectly convert an important land resource(s) identified in the Act or Departmental Regulation, other than floodplains or wetlands, which should be addressed below in Item X of this exhibit. If a conversion may result, determine if there is a practicable alternative to avoiding it. If there is no such alternative, determine whether all practicable mitigation measures are included in the Project. Document as an attachment these determinations and the steps taken to inform the public, locate alternatives, and mitigate potential adverse impacts. See Exhibit C of this subpart for specific implementation guidance.

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X. Compliance with Executive Order 11988, Floodplain Management, and Executive Order 11990, Protection of Wetlands

Indicate whether the Project is either located within a 100-year floodplain (500-year floodplain for a critical action) or a wetland or will impact a floodplain or wetland. If so, determine if there is a practicable alternative project or location. If there is no such alternative, determine whether all practicable mitigation measures are included in the project and document as an attachment these determinations and the steps taken to inform the public, locate alternatives, and mitigate potential adverse impacts. See the U.S. Water Resource Council's Floodplain Management Guidelines for more specific guidance, as well as Exhibit C of this subpart.

XI. Compliance with Coastal Barrier Resources Act

Indicate whether the Project is located within the Coastal Barrier Resources System. If so, indicate whether or not the Project meets an exception criterion under the Act and the results of any consultation with the Secretary of the Interior regarding its qualification as an exception. See Exhibit F of this subpart for specific implementation instructions, as well as Exhibit G for a listing of the exception criteria. (Those States not having any components of the system within their jurisdiction need not reference this item in their assessments.)

XII. State Environmental Policy Act

Indicate if the proposed Project is subject to a State environmental policy act or similar regulation. Summarize the results of compliance with these requirement, and attach available documentation. (See §1940.328 of this subpart for further guidance.)

XIII. Consultation Requirements of Executive Order 12372, Intergovernmental Review of Federal Programs

Attach the comments of State, regional, or local agencies (if this review process is required for the project, and respond to all comments that deal with the subject matters discussed in this assessment format or are otherwise of an environmental nature.

XIV. Environmental Analysis of Participating Federal Agency

Indicate if another Federal agency is participating in the Project either through the provision of additional funds, a companion Project, or a permit review authority. Summarize the results of the involved Agency's

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environmental impact analysis, and attach available documentation. (See §1940.318(d) of this subpart for further guidance.)

XV. Reaction to Project

Discuss any negative comments or public views raised about the Project and the consideration given to these comments. Indicate whether a public hearing or public information meeting has been held either by the applicant or the Agency to include a summary of the results and any objections raised. Indicate any other examples of the community's awareness of the Project, such as newspaper articles or Public notifications.

XVI. Cumulative Impacts

Summarize the cumulative impacts of this Project and related activities. Give particular attention to land use changes and air and water quality impacts. Summarize the results of the environmental impact analysis done for any of these related activities and/or your discussion with the sponsoring agencies. Attach available documentation of the analysis.

XVII. Adverse Impact

Summarize the potential adverse impacts of the proposal as pointed out in the above analysis.

XVIII. Alternatives

Discuss the feasibility of alternatives to the Project and their environmental impacts. These alternatives should include (1) the Agency's alternative locations, (2) alternative designs, (3) alternative Projects having similar benefits, and (4) no Project. If alternatives have been fully discussed above in any of Items VI through X, simply reference that discussion.

XIX. Mitigation Measures

Describe any measures which will be taken or required by the Agency to avoid or mitigate the identified adverse impacts. Analyze the environmental impacts and potential effectiveness of the mitigation measures. Such measures shall be included as special requirements or provisions to the offer of financial assistance or other appropriate approval document if the action does not involve financial assistance.

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XX. Consistency with Agency Environmental Policies

Discuss the Project's consistencies and inconsistencies with the Agency's environmental policies and the State Office's Natural Resource Management Guide. See §1940.304 and §1940.305 for a discussion of these policies and Exhibit B for a discussion of the guide.