APPLICATION OF AGENCY

ALBANY COUNTY INDUSTRIAL DEVELOPMENT AGENCY

APPLICATION

IMPORTANT NOTICE: The answers to the questions contained in this application are necessary to determine your firm's eligibility for financing and other assistance from Albany County Industrial Development Agency (the "Agency"). These answers will also be used in the preparation of papers in this transaction. Accordingly, all questions should be answered accurately and completely by an officer or other employee of your firm who is thoroughly familiar with the business and affairs of your firm and who is also thoroughly familiar with the proposed project. This application is subject to acceptance by the Agency.

TO: ALBANY COUNTY INDUSTRIAL DEVELOPMENT AGENCY
112 State Street; Room 740
Albany, New York 12207

This application by applicant respectfully states:

APPLICANT: **Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC, or their designee(s)**

APPLICANT'S ADDRESS: **621 West Randolph Street**

CITY: **Chicago** STATE: **IL** PHONE NO.: **312-722-5900**

NAME OF PERSON(S) AUTHORIZED TO SPEAK FOR APPLICANT WITH RESPECT TO THIS APPLICATION: **Alex Campbell**

IF APPLICANT IS REPRESENTED BY AN ATTORNEY, COMPLETE THE FOLLOWING:

NAME OF ATTORNEY: **Peter H. Swartz**

ATTORNEY'S ADDRESS: **1583 East Genesee Street**
CITY: **Skaneateles** STATE: **NY** PHONE NO.: **315-554-8166**

NOTE: PLEASE READ THE INSTRUCTIONS ON PAGE 2 HEREOF BEFORE FILLING OUT THIS FORM.

INSTRUCTIONS

1. The Agency will not approve any application unless in the judgment of the Agency said application contains sufficient information upon which to base a decision whether to approve or tentatively approve an action.

2. Fill in all blanks, using "none" or "not applicable" or "N/A" where the question is not appropriate to the project which is the subject of this application (the "Project").

3. If an estimate is given as the answer to a question, put "(est)" after the figure or answer which is estimated.

4. If more space is needed to answer any specific question, attach a separate sheet.

5. When completed, return four (4) copies of this application to the Agency at the address indicated on the first page of this application.

6. The Agency will not give final approval to this application until the Agency receives a completed environmental assessment form concerning the Project which is the subject of this application.

7. Please note that Article 6 of the Public Officers Law declares that all records in the possession of the Agency (with certain limited exceptions) are open to public inspection and copying. If the applicant feels that there are elements of the Project which are in the nature of trade secrets or information, the nature of which is such that if disclosed to the public or otherwise widely disseminated would cause substantial injury to the applicant's competitive position, the applicant may identify such elements in writing and request that such elements be kept confidential in accordance with Article 6 of the Public Officers Law.

8. The applicant will be required to pay to the Agency all actual costs incurred in connection with this application and the Project contemplated herein (to the extent such expenses are not paid out of the proceeds of the Agency's bonds issued to finance the project). The applicant will also be expected to pay all costs incurred by general counsel and bond counsel to the Agency. The costs incurred by the Agency, including the Agency's general counsel and bond counsel, may be considered as a part of the project and included as a part of the resultant bond issue.

9. The Agency has established an application fee of Fifteen Hundred Dollars ($1,500) to cover the anticipated costs of the Agency in processing this application. A check or money order made payable to the Agency must accompany each application. THIS APPLICATION WILL NOT BE ACCEPTED BY THE AGENCY UNLESS ACCOMPANIED BY THE APPLICATION FEE.

FOR AGENCY USE ONLY

1. Project Number	_____
2. Date application received by the Agency	_____, 20_____
3. Date application referred to attorney for review	_____, 20_____
4. Date copy of application mailed to members	_____, 20_____
5. Date notice of Agency meeting on application posted	_____, 20_____
6. Date notice of Agency meeting on application mailed	_____, 20_____
7. Date of Agency meeting on application	_____, 20_____
8. Date Agency conditionally approved application	_____, 20_____
9. Date scheduled for public hearing	_____, 20_____
10. Date Environmental Assessment Form ("EAF") received	_____, 20_____
11. Date Agency completed environmental review	_____, 20_____
12. Date of final approval of application	_____, 20_____

SUMMARY OF PROJECT

Applicant: **Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC, or their designee(s)**

Contact Person: **Alex Campbell**

Phone Number: **570-640-5877 (cell)**

Occupant: **Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC, or their designee(s)**

Project Street Address: **Town of Coeymans in Albany County**

Approximate Size of Project Site: **436 acres**

Description of Project: **Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (collectively, "Hecate Albany"), wholly owned subsidiaries of Hecate Energy LLC, received a Certificate of Environmental Compatibility and Public Need pursuant to Article 10 of the Public Service Law ("PSL") to construct and operate a 40 megawatt ("MW") commercial-scale solar electric generating facility in the Town of Coeymans, Albany County, New York (the "Project"). There are two landowners which have optioned to lease their land to Hecate Albany. See Project Supplement for more detail.**

Type of Project: □ Manufacturing □ Warehouse/Distribution
□ Commercial **X** Other – Specify:
Solar-powered electric generating facility

Employment Impact: Existing Jobs: Full Time: **0** Part-Time: **0**

New Jobs Full Time: **96 FTE (est) during construction, up to 2 (est) during operations** Part-Time:

Project Cost: **$ 50 million**

Type of Financing: □ Tax-Exempt □ Taxable **X** Straight

Lease Amount of Bonds Requested: $ **n/a**

Estimated Value of Tax-Exemptions:

N.Y.S. Sales and Compensating Use Tax:	**$ See Project Supplement**
Mortgage Recording Taxes:	**$ See Project Supplement**
Real Property Tax Exemptions:	**$ See Project Supplement**

Other (please specify): $_____

Provide estimates for the following:

Number of Full Time Employees at the Project Site before IDA Status:	**0**
Estimate of Construction Jobs to be Created:	**96 FTE ***
Estimate of Operations Jobs to be Retained:	**Up to 2 (est)**
Average Estimated Annual Salary of Construction Jobs to be Created:	**$7,400,000**
Average Estimated Annual Salary of Operations Jobs to be Created:	**Up to $116,000**
Annualized Salary Range of Jobs to be Created:	**n/a**

***FTE (full time equivalent where 1 FTE = 2,080 hours)** Estimated Average Annual Salary of Jobs to be Retained: 0_____

Since all positions will be newly created, no jobs will be "retained".

I. Proposed occupant of Project (hereinafter, the "Company").

A. Company Name: **Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC, or their designee(s)**

Present Address: **621 W. Randolph St Chicago, IL**

Zip Code: **60661**

Employer's ID No.: **Hecate Energy Albany 1 LLC (82-3133543), Hecate Energy Albany 2 LLC (82-2036745)**

B. If the Company differs from the Applicant, give details of relationship: **n/a**

C. Indicate type of business organization of Company:

1. **n/a** Corporation (If so, incorporated in what country?_____; What State? _____; Date Incorporated? _____; Type of Corporation? _____; Authorized to do business in New York?_____yes_____no).

2. **n/a** Partnership (If so, indicate type of partnership_____, Number of general partners_____, Number of limited partners _____).

3. X Limited liability company (If so, formed in what State? New York , Date formed? Hecate Energy Albany 1 LLC (APRIL 11, 2019) and Hecate Energy Albany 2 LLC (APRIL 11, 2019) , Authorized to do business in New York?____**Yes**____).

4. **n/a** Sole proprietorship.

D. Is the Company a subsidiary or direct or indirect affiliate of any other organization(s)? If so, indicate name of related organization(s) and relationship: **Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC are wholly-owned subsidiaries of Hecate Energy LLC.**

E. Management of Company:

1. List all owners, officers, members, directors and partners (complete all columns for each person):

NAME (First, Middle, Last) HOME ADDRESS	OFFICE HELD	OTHER PRINCIPAL BUSINESS
Chris Bullinger, Chicago IL	CEO	
Nick Bullinger, Chicago IL	President	
Fazli Qadir, Chicago IL	CTO	

2. Is the Company or management of the Company now a plaintiff or a defendant in any civil or criminal litigation?_____yes **X** no.

3. Has any person listed above ever been convicted of a criminal offense (other than a minor traffic violation)? _____ yes **X** no.

4. Has any person listed above or any concern with whom such person has been connected ever been in receivership or been adjudicated a bankrupt? _____yes **X** no. If yes to any of the foregoing, furnish details in a separate attachment.

F. Principal owners of Company: Is Company publicly held?_____yes **X** no. If yes, list exchanges where stock traded: _____

If no, list all stockholders having a 5% or more interest in the Company:

NAME	ADDRESS	PERCENTAGE OF HOLDING
Hecate Energy NAF LLC	621 West Randolph Street	50%
Hecate Energy New York Holdings LLC	621 West Randolph Street	50%

G. Company's Principal Bank(s) of account: Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC are special purpose vehicles which do not have banking relationships or accounts set up to date.

II. Information concerning lease or sublease of the project. (Please complete the following section if the Company intends to lease or sublease the Project).

A. Does the Company intend to lease or sublease more than 10% (by area or fair market value) of the Project?____yes X no. If yes, please provide detail.

B. What percentage of the space intended to be leased or subleased is now subject to a binding written lease or sublease?_____.

C. 1. Sublessee name: _____

Present Address: _____

City:_____State:_____Zip: _____

Employer's ID No.: _____

Sublessee is:_____Corporation:_____Partnership:_____Sole Proprietorship

Relationship to Company: _____

Percentage of Project to be leased or subleased: _

Use of Project intended by Sublessee: _____

Date of lease or sublease to Sublessee: _____

Term of lease or sublease to Sublessee: _____

2. Sublessee name: _____

Present Address: _____

City:_____State:_____Zip: _____

Employer's ID No.: _____

Sublessee is:_____Corporation: ____ Partnership:_____Sole Proprietorship

Relationship to Company: _____

Percentage of Project to be leased or subleased: _____

Use of Project intended by Sublessee: _____

Date of lease or sublease to Sublessee: _____

Term of lease or sublease to Sublessee: _

3. Sublessee name: _____

Present Address: _____

City:_____ State:_____Zip: _____

Employer's ID No.: _____

Sublessee is:____Corporation:_____Partnership:_____Sole Proprietorship

Relationship to Company: _____

Percentage of Project to be leased or subleased: _____

Use of Project intended by Sublessee: _____

Date of lease or sublease to Sublessee: _____

Term of lease or sublease to Sublessee: _____

III. Data regarding Proposed Project

A. Summary: (Please provide a brief narrative description of the Project.)

_____

_____

_____

See Project Supplement.

_____.

B. Location of Proposed Project:

1. Street Address: _____
2. City of _____
3. Town of **Coeymans** _____
4. Village of _____
5. County of **Albany** _____

C. Project Site:

1. Approximate size (in acres or square feet) of Project site: **436 acres**. Is a map, survey, or sketch of the project site attached? **X** yes_____no.

2. Are there existing buildings on project site?__ yes __ no. If yes, indicate number and approximate size (in square feet) of each existing building: **Any existing farm-related or residential structures currently located on the project site would not be part of the "Project Facility" and would remain subject to real property taxation.**

3. Are existing buildings in operation?_____yes_____no.
If yes, describe present use of present buildings: _____

Are existing buildings abandoned?_____yes ____ no. About to be abandoned?_____yes _____no. Attach photograph of present buildings.

4. Utilities serving project site:

Water-Municipal:_____
Other (describe) _____
Sewer-Municipal:_____
Other (describe) _____
Electric-Utility:_____
Other (describe) _____
Heat-Utility:_____
Other (describe) _____

5. Present legal owner of project site: **Mark Flach and George LaMountain**

If the Company owns project site, indicate date of purchase: _____, 20___; Purchase price: $ **n/a**.

If Company not owner, does Company have option signed with owner to purchase the project site?___yes **X** no. If yes, indicate date option signed with owner:_____, 20_.

Date option expires:_____, 20_. If the Company does not own the project site, is there a relationship legally or by common control between the Company and the present owners of the project site? X yes
_____no. If yes, describe in detail on separate attachment.

See Project Supplement.

6. Zoning District in which the project site is located: **Zoning District RA, R4, and 1**

Are there any variances or special permits affecting the site?_____yes
X no. If yes, list below and attach copies of all such variances or special permits:
_____
_____
_____
_____
_____.

D. Buildings:

1. Does part of the project consist of a new building or buildings?_____yes
X no. If yes, indicate number and size of new buildings:
_____
_____
_____
_____.

2. Does part of the project consist of additions and/or renovations to the existing buildings?__ yes X no. If yes, indicate nature of expansion and/or renovation: _____
_____
_____
_____
_____.

_____
_____
_____
_____

3. Describe the principal uses to be made by the Company of the building or buildings to be acquired, constructed, or expanded:

No buildings are planned.

E. Project Use:

1. What are the principal products to be produced at the Project? **Electricity.**

2. What are the principal activities to be conducted at the Project? **Solar-powered electric generation**.

3. Will any portion of the Project be used for any of the following purposes:

retail food and beverage services:_____Yes **X** No
automobile sales or service:_____Yes **X** No
recreation or entertainment:_____Yes **X** No
golf course:_____Yes **X** No
country club:_____Yes **X** No
massage parlor:_____Yes **X** No
tennis club:_____Yes **X** No
skating facility (including roller skating, skateboard and ice skating):
____Yes **X** No
racquet sports facility (including handball and racquetball court):
____Yes **X** No
hot tub facility:____Yes **X** No
suntan facility:___Yes **X** No
racetrack:_Yes **X** No

If the answer to any of the above questions is yes, please furnish details on a separate attachment.

4. Does the Project include facilities or property that are primarily used in making retail sales of goods or services to customers who personally visit such facilities? ____ Yes **X** No. If yes, please provide detail: _____

5. If the answer to question 4 is yes, what percentage of the cost of the Project will be expended on such facilities or property primarily used in making retail sales of goods or services to customers who personally visit the Project?_____%

6. If the answer to question 4 is yes, and the answer to question 5 is more than 33.33%, indicate whether any of the following apply to the Project:

a. Will the Project be operated by a not-for-profit corporation?

Yes_____No_____.

b. Is the Project likely to attract a significant number of visitors from outside the economic development region in which the Project will be located? Yes ; No .

c. Would the project occupant, but for the contemplated financial assistance from the Agency, locate the related jobs outside the State of New York? Yes ; No .

d. Is the predominant purpose of the Project to make available goods or services which would not, but for the Project, be reasonable accessible to the residents of the city, town or village within which the Project will be located, because of a lack of reasonably accessible retail trade facilities offering such goods or services? Yes ____ ; No . If yes, please provide detail. _____

_____

_____

_____

_____.

e. Will the Project be located in one of the following: (a) an area designed as an economic development zone pursuant to Article 18-B of the General Municipal Law or (b) a census tract or block numbering area (or census tract or block numbering area contiguous thereto) which, according to the most recent census data, has (i) a poverty rate of at least 20% for the year in which the data relates, or at least 20% of households receiving public assistance, and (ii) an unemployment rate of at least 1.25 times the statewide unemployment rate for the year to which the data relates? Yes ; No .

7. If the answers to any of subdivisions c. through e. of question 6 is yes, will the Project preserve permanent, private sector jobs or increase the overall number of permanent, private sector jobs in the State of New York? Yes _____ No ____. If yes, please provide detail.

_____

_____

_____

_____.

8. Will the completion of the Project result in the removal of a plant or facility of the Company or another proposed occupant of the Project (a "Project Occupant") from one area of the State of New York to another area of the State of New York? Yes_ ; No X . If yes, please explain:

_____

_____.

9. Will the completion of the Project result in the abandonment of one or more plants or facilities of the Company located in the State of New York? Yes _ ; No **X** . If yes, please provide detail:

_____

_____

_____

_____.

10. If the answer to either question 8 or question 9 is yes, indicate whether any of the following apply to the Project:

a. Is the Project reasonably necessary to preserve the competitive position of the Company on such Project Occupant in its industry? Yes ____ ; No ____ . If yes, please provide detail: _____

_____

_____

_____.

b. Is the Project reasonably necessary to discourage the Company or such Project Occupant from removing such other plant or facility to a location outside the State of New York? Yes____ ; No ____ . If yes, please provide detail: _____

_____

_____

_____

11. Will the Project be owned by a not-for-profit corporation? Yes_____; No **X**___. If yes, please provide detail: _____

_____

_____

_____.

12. If the answer to question 11 is yes, indicate whether any of the following apply to the Project:

a. Is the Project a housing facility primarily designed to be occupied by individuals 60 years of age or older? Yes ___ ; No ___ . If yes, please explain: _____

_____

_____

_____.

b. Is the Project a dormitory for an educational institution? Yes ____; No ____. If yes, please explain:

_____

_____

_____.

c. Is the Project a facility as defined in Article 28 of the Public Health Law? Yes____; No____. If yes, please explain: _____

13. If the answer to any of the questions contained in question 12 is yes, indicate whether the cost of the Project will exceed $15 million. Yes ____; No____. If yes, please provide detail: n/a

14. Will the Project be sold or leased to a municipality? Yes____; No **X**. If yes, please provide detail: _____

F. Construction Status:

1. Has construction work on this project begun?__ Yes; **X** No. If yes, please discuss in detail the approximate extent of construction and the extent of completion. Indicate in your answer whether such specific steps have been completed as site clearance and preparation; completion of foundations; installation of footings; etc.: _____

2. Please indicate amount of funds expended on this project by the Company in the past three (3) years and the purposes of such expenditures: **The Company has spent many years and millions of dollars developing the Project.**

3. Please indicate the date the applicant estimates the Project will be completed: **4th quarter 2021 or 1st quarter 2022** .

G. Method of Construction after Agency Approval:

1. If the Agency approves the project which is the subject of this application, there are two methods that may be used to construct the project. The applicant can construct the project privately and sell the project to the Agency upon completion. Alternatively, the applicant can request to be appointed as "agent" of the Agency, in which case certain laws applicable

to public construction may apply to the project. Does the applicant wish to be designated as "agent" of the Agency for purposes of constructing the project? X Yes; No.

H. Other Involved Agencies:

1. Please indicate all other local agencies, boards, authorities, districts, commissions or governing bodies (including any city, county and other political subdivision of the State of New York and all state departments, agencies, boards, public benefit corporations, public authorities or commissions) involved in approving or funding or directly undertaking action with respect to the Project. For example, do you need a municipal building permit to undertake the Project? Do you need a zoning approval to undertake the Project? If so, you would list the appropriate municipal building department or planning or zoning commission which would give said approvals. **The Company requires a building permit from the Town of Coeymans.**

2. Describe the nature of the involvement of the federal, state, or local agencies described above: **The Company received a Certificate of Environmental Compatibility and Public Need Pursuant to Article 10 of the Public Service Law from the New York State Board on Electric Generation Siting and the Environment for the Project.**

IV. Employment Impact

A. Indicate the number of people presently employed at the Project site and the **additional** number that will be employed at the Project site at the end of the first and second years after the Project has been completed, using the tables below for (1) employees of the Applicant, (2) independent contractors, and (3) employees of independent contractors. (Do not include construction workers). Also indicate below the number of workers employed at the Project site representing newly created positions as opposed to positions relocated from other project sites of the applicant. Such information regarding relocated positions should also indicate whether such positions are relocated from other project sites financed by obligations previously issued by the Agency.

See Project Supplement. For questions IV (A-D), please find attached documents entitled "Coeymans Solar Farm - Economic Impact Assessment" and "Exhibit 27 Socioeconomic Effects"

TYPE OF EMPLOYMENT Employees of Applicant					
	Professional or Managerial	Skilled	Semi-Skilled	Un-Skilled	Totals
Present Full Time					
Present Part Time					
Present Seasonal					
First Year Full Time					
First Year Part Time					
First Year Seasonal					
Second Year Full Time					
Second Year Part Time					
Second Year Seasonal					

TYPE OF EMPLOYMENT **Independent Contractors**					
	Professional or Managerial	Skilled	Semi-Skilled	Un-Skilled	Totals
Present Full Time					
Present Part Time					
Present Seasonal					
First Year Full Time					
First Year Part Time					
First Year Seasonal					
Second Year Full Time					
Second Year Part Time					
Second Year Seasonal					

TYPE OF EMPLOYMENT **Employees of Independent Contractors**					
	Professional or Managerial	Skilled	Semi-Skilled	Un-Skilled	Totals
Present Full Time					
Present Part Time					

Present Seasonal					
First Year Full Time					
First Year Part Time					
First Year Seasonal					
Second Year Full Time					
Second Year Part Time					
Second Year Seasonal					

B. Indicate below (1) the estimated salary and fringe benefit averages or ranges and (2) the estimated number of employees residing in the Capital Region Economic Development Region for all the jobs at the Project site, both retained and created, listed in the tables described in subsection A above for each of the categories of positions listed in the chart below.

See Project Supplement.

RELATED EMPLOYMENT INFORMATION				
	Professional or Managerial	Skilled	Semi-Skilled	Un-Skilled
Estimated Salary and Fringe Benefit Averages or Ranges				
Estimated Number of Employees Residing in the Capital Region Economic Development Region[1]				

C. Please describe the projected timeframe for the creation of any new jobs with respect to the undertaking of the Project:

See Project Supplement.

[1] The Capital Region Economic Development Region consists of the following counties: Albany, Schenectady,

Rensselaer, Greene, Columbia, Saratoga, Warren, and Washington.

D. Please prepare a separate attachment describing in detail the types of employment at the Project site. Such attachment should describe the activities or work performed for each type of employment.

See Project Supplement.

V. Project Cost

A. Anticipated Project Costs. State the costs reasonably necessary for the acquisition of the Project site, the construction of the proposed buildings and the acquisition and installation of any machinery and equipment necessary or convenient in connection therewith, and including any utilities, access roads or appurtenant facilities, using the following categories:

Description of Cost	**Amount**
Land	$ _____
Buildings	$ _____
Machinery and equipment costs	$ _____
Utilities, roads and appurtenant costs	$ _____
Architects and engineering fees	$ _____
Costs of Bond Issue (legal, financial and printing)	$ _____
Construction loan fees and interest (if applicable)	$ _____
Other (specify)	
_____	$ _____
_____	$ _____
_____	$ _____
TOTAL PROJECT COSTS	$ **See Project Supplement**

B. Anticipated Project Financing Sources. State the sources reasonably necessary for the financing of the Project site, the construction of the proposed buildings and the acquisition and installation of any machinery and equipment necessary or convenient in connection therewith, and including any utilities, access roads

or appurtenant facilities, using the following categories:

Description of Sources	Amount
Private Sector Financing	$ 100%
Public Sector	
Federal Programs	$
State Programs	$
Local Programs	$
Applicant Equity	$
Other (specify, e.g., tax credits)	
	$
	$
	$
TOTAL AMOUNT OF PROJECT FINANCING SOURCES	$

C. Have any of the above expenditures already been made by the applicant? Yes X ; No_____. If yes, indicate particulars.

See response to Section III.F.2 above.

D. Amount of loan requested: $_____;

Maturity requested:_____years.

Financing terms for the Project have not yet been reached.

E. Has a commitment for financing been received as of this application date, and if so, from whom?

Yes_____; No_____. Institution Name: _____

Provide name and telephone number of the person we may contact.

Name:_____Phone: _____

F. The percentage of Project costs to be financed from public sector sources is estimated to equal the following:_____%

G. The total amount estimated to be borrowed to finance the Project is equal to the following: $ _____

VI. Benefits expected from the Agency

A. Is the applicant requesting that the Agency issue bonds to assist in financing the project? Yes No. **X**

B. Is the interest on such bonds intended to be exempt from federal income taxation? _____Yes_No.

C. Is the applicant requesting any real property tax exemption that would not be available to a project that did not involve the Agency?____ Yes __**X**__ No. If yes, is the real property tax exemption being sought consistent with the Agency's Uniform Tax Exemption Policy? Yes ; No .

D. Is the applicant expecting that the financing of the Project will be secured by one or more mortgages?__**X**__ Yes ____ No. If yes, what is the approximate amount of financing to be secured by mortgages? $ **See Project Supplement** .

E. Is the applicant expecting to be appointed agent of the Agency for purposes of avoiding payment of N.Y.S. Sales Tax or Compensating Use Tax? Yes ___X ;__No. If yes, what is the approximate amount of purchases which the applicant expects to be exempt from the N.Y.S. Sales and Compensating Use Taxes? $ **See Project Supplement** .

F. What is the estimated value of each type of tax-exemption being sought in connection with the Project? Please detail the type of tax-exemption and value of the exemption.

1. N.Y.S. Sales and Compensating Use Taxes: **See Project Supplement**
2. Mortgage Recording Taxes: **See Project Supplement**
3. Real Property Tax Exemptions: **See Project Supplement**
4. Other (please specify):_____

G. Please list the affected taxing jurisdictions for the Project.

1. Village (if any):_____
2. Town: **Coeymans**
3. City (if any):_____
4. School District: **Ravena-Coeymans-Selkirk Central School District**

H. Are any of the tax-exemptions being sought in connection with the Project inconsistent with the Agency's Uniform Tax Exemption Policy?
__X__ Yes ____No. If yes, please explain. **The PILOT terms sought are not consistent with the UTEP but have been approved by the Town of Coeymans.**

I. Project Benefit Information. Complete the attached Cost/Benefit Analysis so that the Agency can perform a cost/benefit analysis of undertaking the Project. Such information should consist of a list and detailed description of the benefits of the Agency undertaking the Project (e.g., number of jobs created, types of jobs created, economic development in the area, etc.). Such information should also consist of a list and detailed description of the costs of the Agency undertaking the Project (e.g., tax revenues lost, buildings abandoned, etc.).

VII. Agreements by Applicant: The applicant understands and agrees with the Agency as follows:

A. Job Listings. In accordance with Section 858-b(2) of the New York General Municipal Law, the applicant understands and agrees that, if the Project receives any Financial Assistance from the Agency, except as otherwise provided by collective bargaining agreements, new employment opportunities created as a result of the Project will be listed with the New York State Department of Labor Community Services Division (the "DOC") and with the administrative entity (collectively with the DOC, the "JTPA Entities") of the service delivery area created by the federal job training partnership act (Public Law 97-300) ("JTPA"), as replaced by the Workforce Investment Act of 1998 (Public Law 105-220), in which the Project is located.

B. First Consideration for Employment. In accordance with Section 858-b(2) of the New York General Municipal Law, the applicant understands and agrees that, if the Project receives any Financial Assistance from the Agency, except as otherwise provided by collective bargaining agreements, where practicable, the applicant will first consider persons eligible to participate in JTPA programs who shall be referred by the JTPA Entities for new employment opportunities created as a result of the Project.

C. Annual Sales Tax Filings. In accordance with Section 874(8) of the New York General Municipal Law, the applicant understands and agrees that, if the Project receives any sales tax exemptions as part of the Financial Assistance from the Agency, in accordance with Section 874(8) of the General Municipal Law, the applicant agrees to file, or cause to be filed, with the New York State Department of Taxation and Finance, the annual form prescribed by the Department of Taxation and Finance, describing the value of all sales tax exemptions claimed by the applicant and all consultants or subcontractors retained by the applicant.

D. Annual Employment Reports. The applicant understands and agrees that, if the

Project receives any Financial Assistance from the Agency, the applicant agrees to file, or cause to be filed, with the Agency, on an annual basis, reports regarding the number of people employed at the Project site, including (1) the NYS-45 – Quarterly Combined Withholding, Wage Reporting and Unemployment Insurance Return – for the quarter ending December 31 (the "NYS-45"), and (2) the US Dept. of Labor BLS 3020 Multiple Worksite report if applicable.

E. Uniform Agency Project Agreement. The applicant agrees to enter into a project benefits agreement with the Agency where the applicant agrees that (1) the amount of Financial Assistance to be received shall be contingent upon, and shall bear a direct relationship to the success or lack of success of such project in delivering certain described public benefits (the "Public Benefits") and (2) the Agency will be entitled to recapture some or all of the Financial Assistance granted to the applicant if the project is unsuccessful in whole or in part in delivering the promised Public Benefits.

F. Representation of Financial Information. Neither this Application nor any other agreement, document, certificate, project financials, or written statement furnished to the Agency or by or on behalf of the applicant in connection with the project contemplated by this Application contains any untrue statement of a material fact or omits to state a material fact necessary in order to make the statements contained herein or therein not misleading. There is no fact within the special knowledge of any of the officers of the applicant which has not been disclosed herein or in writing by them to the Agency and which materially adversely affects or in the future in their opinion may, insofar as they can now reasonably foresee, materially adversely affect the business, properties, assets or condition, financial or otherwise, of the applicant.

G. Agency Financial Assistance Required for Project. The Project would not be undertaken but for the Financial Assistance provided by the Agency or, if the Project could be undertaken without the Financial Assistance provided by the Agency, then the Project should be undertaken by the Agency for the following reasons:

H. Compliance with Article 18-A of the General Municipal Law: The Project, as of the date of this Application, is in substantial compliance with all provisions of article 18-A of the General Municipal including, but not limited to, the provisions of Section 859-a and subdivision one of Section 862; and the provisions of subdivision one of Section 862 of the General Municipal Law will not be violated if Financial Assistance is provided for the Project.

I. Compliance with Federal, State, and Local Laws. The applicant is in substantial compliance with applicable local, state, and federal tax, worker protection, and environmental laws, rules, and regulations.

J. False or Misleading Information. The applicant understands that the submission of any knowingly false or knowingly misleading information may lead to the immediate termination of any Financial Assistance and the reimbursement of an amount equal to all or part of any tax exemptions claimed by reason of Agency involvement in the Project.

K. Absence of Conflicts of Interest. The applicant acknowledges that the members, officers, and employees of the Agency are listed on the Agency's website. No member, officer or employee of the Agency has an interest, whether direct or indirect, in any transaction contemplated by this Application, except as hereinafter described:

L. Additional Information. Additional information regarding the requirements noted in this Application and other requirements of the Agency are included in the Agency's Additional Documents which can be accessed at: http://www.albanycounty.com/Businesses/ACIDA/ACIDA-Documents.aspx .

I affirm under penalty of perjury that all statements made on this application are true, accurate, and complete to the best of my knowledge.

Applicant

By: Chris Bullinger

Title: ~~CEO~~ AUTHORIZED SIGNATORY OF HECATE ENERGY ALBANY 1 LLC HECATE ENERGY ALBANY 2 LLC

NOTE: APPLICANT MUST COMPLETE THE APPROPRIATE VERIFICATION APPEARING ON PAGES 26 THROUGH 29 HEREOF BEFORE A NOTARY PUBLIC AND MUST SIGN AND ACKNOWLEDGE THE HOLD HARMLESS AGREEMENT APPEARING ON PAGE 30.

VERIFICATION

(If applicant is a limited liability company)

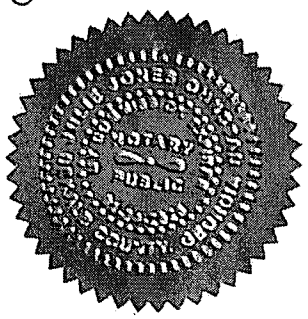
STATE OF Georgia)
)SS.:
COUNTY OF DeKalb)

Chris Bullinger, deposes and says (Name of Individual) AUTHORIZED SIGNATORY that he is the ~~Chief Executive Officer~~ of one of the members of the firm of Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC, (Limited Liability Company) the limited liability company named in the attached application; that he has read the foregoing application and knows the contents thereof; and that the same is true and complete and accurate to the best of his knowledge. The grounds of deponent's belief relative to all matters in the said application which are not stated upon his own personal knowledge are investigations which deponent has caused to be made concerning the subject matter of this application as well as information acquired by deponent in the course of his duties as a member of and from the books and papers of said limited liability company.

Chris Bullinger

Sworn to before me this
17 day of March 2021

Julie Jones Ohmstad
(Notary Public



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HOLD HARMLESS AGREEMENT

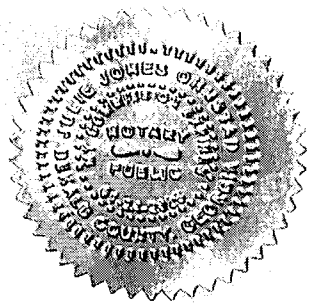
Applicant hereby releases Albany County Industrial Development Agency and the members, officers, servants, agents and employees thereof (hereinafter collectively referred to as the "Agency") from, agrees that the Agency shall not be liable for and agrees to indemnify, defend and hold the Agency harmless from and against any and all liability arising from or expense incurred by (i) the Agency's examination and processing of, and action pursuant to or upon, the attached Application, regardless of whether or not the application or the project described therein or the issuance of bonds requested therein are favorably acted upon by the Agency, (ii) the Agency's financing of the Project described therein; and (iii) any further action taken by the Agency with respect to the Project, including without limiting the generality of the foregoing, all causes of action and attorneys' fees and any other expenses incurred in defending any suits or actions which may arise as a result of any of the foregoing.. If, for any reason, the Applicant fails to conclude or consummate necessary negotiations, or fails, within a reasonable or specified period of time, to take reasonable, proper or requested action, or withdraws, abandons, cancels or neglects the Application, or if the Agency or the Applicant are unable to find buyers willing to purchase the total bond issue requested, then, and in that event, upon presentation of an invoice itemizing the same, the Applicant shall pay to the Agency, its agents or assigns, all actual costs incurred by the Agency in the processing of the Application, including attorneys' fees, if any.

HECATE ENERGY ALBANY 1 LLC
HECATE ENERGY ALBANY 2 LLC
(Applicant)

BY: _____
AUTHORIZED SIGNATORY

Sworn to before me this
17 day of March, 2021

_____
(Notary Public)



TO: Project Applicants
FROM: Albany County Industrial Development Agency
RE: Cost/Benefit Analysis

In order for the Albany County Industrial Development Agency (the "Agency") to prepare a Cost/Benefit Analysis for a proposed project (the "Project"), the Applicant must answer the questions contained in this Project Questionnaire (the "Questionnaire") and complete the attached Schedules. This Questionnaire and the attached Schedule will provide information regarding various aspects of the Project, and the costs and benefits associated therewith.

This Questionnaire must be completed before we can finalize the Cost/Benefit Analysis, please complete this Questionnaire and forward it to us at your earliest convenience.

PROJECT QUESTIONNAIRE

1. Name of Project Beneficiary ("Company"):	**Hecate Energy Albany 1 LLC, Hecate Energy Albany 2 LLC, or their designee(s)**
2. Brief Identification of the Project:	**40 MW solar-powered electric generating facility. See Project Supplement for more detail.**
3. Estimated Amount of Project Benefits Sought:	**See Project Supplement**
A. Amount of Bonds Sought:	$ **n/a**
B. Value of Sales Tax Exemption Sought	$ **See Project Supplement**
C. Value of Real Property Tax Exemption Sought	$ **See Project Supplement**
D. Value of Mortgage Recording Tax Exemption Sought	$ **See Project Supplement**
4. Likelihood of accomplishing the Project in a timely fashion:	**See Project Supplement**

PROJECTED PROJECT INVESTMENT

A.	Land-Related Costs	
1.	Land acquisition	$_____
2.	Site preparation	$_____
3.	Landscaping	$_____
4.	Utilities and infrastructure development	$_____
5.	Access roads and parking development	$_____
6.	Other land-related costs (describe)	$_____
B.	Building-Related Costs	
1.	Acquisition of existing structures	$_____
2.	Renovation of existing structures	$_____

3.	New construction costs	$_____

4.	Electrical systems	$_____
5.	Heating, ventilation and air conditioning	$_____
6.	Plumbing	$_____
7.	Other building-related costs (describe)	$_____
C.	Machinery and Equipment Costs	
1.	Production and process equipment	$_____
2.	Packaging equipment	$_____
3.	Warehousing equipment	$_____
4.	Installation costs for various equipment	$_____
5.	Other equipment-related costs (describe)	$_____
D.	Furniture and Fixture Costs	
1.	Office furniture	$_____
2.	Office equipment	$_____
3.	Computers	$_____
4.	Other furniture-related costs (describe)	$_____
E.	Working Capital Costs	
1.	Operation costs	$_____
2.	Production costs	$_____
3.	Raw materials	$_____
4.	Debt service	$_____
5.	Relocation costs	$_____
6.	Skills training	$_____
7.	Other working capital-related costs (describe)	$_____
F.	Professional Service Costs	
1.	Architecture and engineering	$_____
2.	Accounting/legal	$_____
3.	Other service-related costs (describe)	$_____
G.	Other Costs	
1.		$_____
2.	_____	$_____
H.	Summary of Expenditures	
1.	Total Land-Related Costs	$_____
2.	Total Building-Related Costs	$_____
3.	Total Machinery and Equipment Costs	$_____
4.	Total Furniture and Fixture Costs	$_____
5.	Total Working Capital Costs	$_____
6.	Total Professional Service Costs	$_____
7.	Total Other Costs	$_____

PROJECTED CONSTRUCTION EMPLOYMENT IMPACT

I. Please provide estimates of total construction jobs and the total annual wages and benefits of construction jobs at the Project:

Year	Number of Construction Jobs	Total Annual Wages and Benefits	Estimated Additional NYS Income Tax
Current Year	0	$_____	$_____
Year 1	96	$ 7,400,000	$ TBD
Year 2		$_____	$_____
Year 3		$_____	$_____
Year 4		$_____	$_____
Year 5		$_____	$_____

PROJECTED PERMANENT EMPLOYMENT IMPACT

I. Estimates of the total number of existing permanent jobs to be preserved or retained as a result of the Project are described in the tables in Section IV of the Application. **0**

II. Estimates of the total new permanent jobs to be created at the Project are described in the tables in Section IV of the Application. **Up to 2**

III. Please provide estimates for the following:

A. Creation of New Job Skills relating to permanent jobs. Please complete Schedule A.

IV. Provide the projected percentage of employment that would be filled by Albany County residents: _____

A. Provide a brief description of how the project expects to meet this percentage:

PROJECTED OPERATING IMPACT

I. Please provide estimates for the impact of Project operating purchases and sales: **n/a**

Additional Purchases (1st year following project completion)	$_____
Additional Sales Tax Paid on Additional Purchases	$_____
Estimated Additional Sales (1st full year following project completion)	$_____
Estimated Additional Sales Tax to be collected on additional sales (1st full year following project completion)	$_____

II. Please provide estimates for the impact of Project on existing real property taxes and new payments in lieu of taxes ("Pilot Payments"):

See Project Supplement.

Year	Existing Real Property Taxes (Without IDA involvement)	New Pilot Payments (With IDA)	Total (Difference)
Current Year			
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			
Year 6			
Year 7			
Year 8			
Year 9			
Year 10			

III. Please provide a detailed description for the impact of other economic benefits and all anticipated community benefits expected to be produced as a result of the Project (attach additional pages as needed for a complete and detailed response):

CERTIFICATION

I certify that I have prepared the responses provided in this Questionnaire and that, to the best of my knowledge; such responses are true, correct, and complete.

I understand that the foregoing information and attached documentation will be relied upon, and constitute inducement for, the Agency in providing financial assistance to the Project. I certify that I am familiar with the Project and am authorized by the Company to provide the foregoing information, and such information is true and complete to the best of my knowledge. I further agree that I will advise the Agency of any changes in such information, and will answer any further questions regarding the Project prior to the closing.

I affirm under penalty of perjury that all statements made on this application are true, accurate, and complete to the best of my knowledge.

Date Signed: March 16, 2021.	**Name of Person Completing Project Questionnaire on behalf of the Company.** Name: Alex Campbell Title: Project Developer Address: Garrison, NY Phone Number: 570-640-5877 **Signature:**

SCHEDULE A

CREATION OF NEW JOB SKILLS

Please list the projected new job skills for the new permanent jobs to be created at the Project as a result of the undertaking of the Project by the Company.

New Job Skills	Number of Positions Created	Range of Salary and Benefits

Should you need additional space, please attach a separate sheet.

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (together, the "*Company*")
Project Supplement to Application for Financial Assistance to
Albany County Industrial Development Agency (the "*Agency*")

SUMMARY OF PROJECT

Description of Project:

The project covered by this Application (the "*Project*") will consist of: (a)(1) the acquisition of an interest in the Company's leasehold and easement interests in certain parcels of land located in the Town of Coeymans, Albany County, New York (collectively, the "*Land*"), (2) the acquisition, construction, installation and equipping on or under the Land of: (i) a buried and overhead collection line system, (ii) an interconnection substation facility, (iii) operations and maintenance structure(s), and (iv) a system of gravel access roads, security fencing and gates, parking, landscaping and related improvements to the Land (collectively, the "*Improvements*"), and (3) the acquisition, installation and equipping therein and thereon of certain equipment, including photovoltaic panels producing direct current ("*DC*") electricity with a planned total rated alternating current ("*AC*") output capacity of up to 40 megawatts ("*MW*") to be mounted on fixed-tilt or tracking panel racks, inverters to convert DC electricity to AC electricity, and furniture, fixtures, machinery and equipment (collectively, the "*Equipment*"), all of the foregoing for use by the Company as a solar-powered electric generating facility (collectively, the "*Project Facility*"), and (b) the granting of certain "financial assistance" (within the meaning of Section 854(14) of the General Municipal Law) with respect to the foregoing, including exemptions from sales and use taxes, mortgage recording taxes, and real property taxes for the Project Facility (but not including special district taxes) (collectively, the "*Financial Assistance*"); and (c) the lease of the Project Facility by the Company to the Agency and a lease of the Project Facility by the Agency back to the Company; all as contemplated by and in furtherance of the purposes of the General Municipal Law.

Estimated Value of Tax Exemptions:

See below.

Section III(A). Data regarding Proposed Project. Summary:

See Description of Project above.

Section III(C)(1). Project Site:

See Exhibit A for Project map.

Section III(C)(5). Present legal owner of project site:

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (together, the "*Company*")
Project Supplement to Application for Financial Assistance to
Albany County Industrial Development Agency (the "*Agency*")

The Company has option agreements with underlying property owners Mark Flach and George LaMountain for entry into long-term land leases. Upon execution of the options, the Company will have site control for the construction period through the end of the useful life of the Project Facility. The terms of the options and leases are confidential but a memorandum of lease will be recorded with the County Clerk for each of the leases following exercise of the options.

Section IV(A-D). Employment Impact.

Current Jobs

The Company does not currently employ workers in Albany County.

Construction Jobs

The Company estimates that construction of the Project will create approximately 140 construction jobs at the peak of the construction period, translating to an annualized full-time equivalent (FTE) headcount of 96 based on 2,080 hours per FTE work-year. It is anticipated that total compensation (including salary and benefits) for the 96 FTE construction jobs will be approximately $7,400,000. Anticipated types of construction jobs are provided in the Coeymans Solar Farm, Case No. 17-F-0617, 1001.27 Exhibit 27, Socioeconomic Effects, of the Company's Public Service Law Article 10 Application (the "*Socioeconomics Effects Exhibit*"), a copy of which is attached hereto as Exhibit B. Estimated FTE construction jobs and compensation are also provided in the Coeymans Solar Farm dated May 2019 (the "*Economic Impact Assessment*"), a copy of which is attached hereto as Exhibit C. Details regarding the types of construction jobs on site, compensation for each type, and salary and benefits for each type would be determined by the Engineering, Procurement and Construction (EPC) contractor for the Project. However, an EPC contractor has not yet been engaged for the Project.

Permanent Jobs

The Company estimates that that operation and maintenance of the Project would create the equivalent of up to 2 FTE permanent jobs (when part-time and seasonal worker hours are annualized) through direct employment by the Project or through operations and maintenance contractors. Those positions would be created following commencement of commercial operations and would persist for the 2-year reference period. Anticipated types of positions are provided in the Socioeconomic Effects Exhibit. It is anticipated that total annual compensation (including salary and benefits) for operation and maintenance positions will be approximately $116,000. Details regarding the types of permanent jobs on site, compensation for each type, and salary and benefits for each type have not yet been developed by the Company.

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (together, the "*Company*")
Project Supplement to Application for Financial Assistance to
Albany County Industrial Development Agency (the "*Agency*")

Section V(A). Project Cost. Anticipated Project Costs.

The Company anticipates the total cost of the Project will be $50,000,000. The Project has not yet been designed and its construction has not yet been put out to bid so a more detailed breakdown of the estimated cost is not available.

Section VI. Benefits expected from the Agency

D. Mortgage Recording Tax Exemption

The Project may be financed with debt that may be secured by a mortgage. Based on an estimated total Project cost of approximately $50,000,000 and a mortgage recording tax rate of 1.25%, the estimated mortgage recording tax exemption would be up to $625,000 (if 100% of the Project cost was financed with debt).

E. Sales Tax Exemption

Based on an estimated total Project cost of approximately $50,000,000 and a sales tax rate of 8.0%, the total potential sales tax exemption would be up to $4,000,000. However, it is anticipated that certain elements of the Project Facility would also qualify for the production exemption from sales tax under New York Tax Law Sections 1115(a)(12) and 1105-B or for other exemptions, such as for professional services.

F. Real Property Tax Exemption

Because real property taxation of solar-powered electric generating facilities is unsettled, the Company has negotiated the terms of a PILOT agreement for the Project (along with a Host Community Agreement ("*HCA*") with the Town of Coeymans), which will create a significant revenue opportunity for the involved tax jurisdictions through PILOT, HCA, and change-in-use real property tax payments. The Town of Coeymans engaged a financial and real property tax expert to negotiate and validate the payment amounts. Accordingly, the terms of the PILOT as part of the revenue package agreed to for the Project represent a settled/compromised payment level for the Project Facility and therefore do not represent an abated level of tax. In addition, the Financial Assistance would be of value to the Company and the involved tax jurisdictions because it would: (a) secure necessary operating cost certainty for the Project over its useful life (and thereby facilitate Project financing), (b) create budgeting and revenue certainty for the host tax jurisdictions, and (c) create those respective certainties over a longer term than is available for solar projects under Real Property Tax Law Section 487.

Cost/Benefit Analysis. Project Questionnaire:

1. Brief Identification of the Project:

See Description of Project above.

2. Estimated Amount of Project Benefits Sought:

See Section VI above.

3.B. Value of Sales Tax Exemption Sought:

See Section VI above.

3.C. Value of Real Property Tax Exemption Sought:

See Section VI above.

3.D. Value of Mortgage Recording Tax Exemption Sought:

See Section VI above.

4. Likelihood of accomplishing the Project in a timely fashion:

The Project is fully permitted under Public Service Law Article 10 and ready to proceed with construction. The Company anticipates commencing construction in 2021 and commencing commercial operation of the Project in late-2021/early-2022. That schedule depends on the Agency's granting of the Financial Assistance and closing the straight-lease transaction and on financing of the Project. The Project cannot be financed without the cost certainty created by the Financial Assistance. If the Agency grants the Financial Assistance and closes on the straight-lease transaction in the next several months, the Company believes it is highly likely the Project will be completed as anticipated (barring any unforeseen circumstances).

PROJECTED OPERATING IMPACT

II. Please provide estimates for the impact of Project on existing real property taxes and new payments in lieu of taxes ("Pilot Payments"):

The Financial Assistance would not have any impact on the existing real property taxes at the Project site. The real property tax exemption would not extend to the underlying land or improvements unrelated to the Project Facility. Rather, the real property tax exemption would extend to the Project's leasehold and easement interests in the underlying land and Project-related improvements constituting the Project Facility.

Anticipated PILOT payments from the Project Facility will be provided once the payment amounts under the PILOT and HCA are agreed upon by the Town of Coeymans, Albany County,

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (together, the "*Company*")
Project Supplement to Application for Financial Assistance to
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and the Ravena-Coeymans-Selkirk Central School District.

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (together, the "*Company*")
Project Supplement to Application for Financial Assistance to
Albany County Industrial Development Agency (the "*Agency*")

Exhibit A

Project Map

Exhibit B

Socioeconomic Effects Exhibit

Exhibit C

Economic Impact Assessment

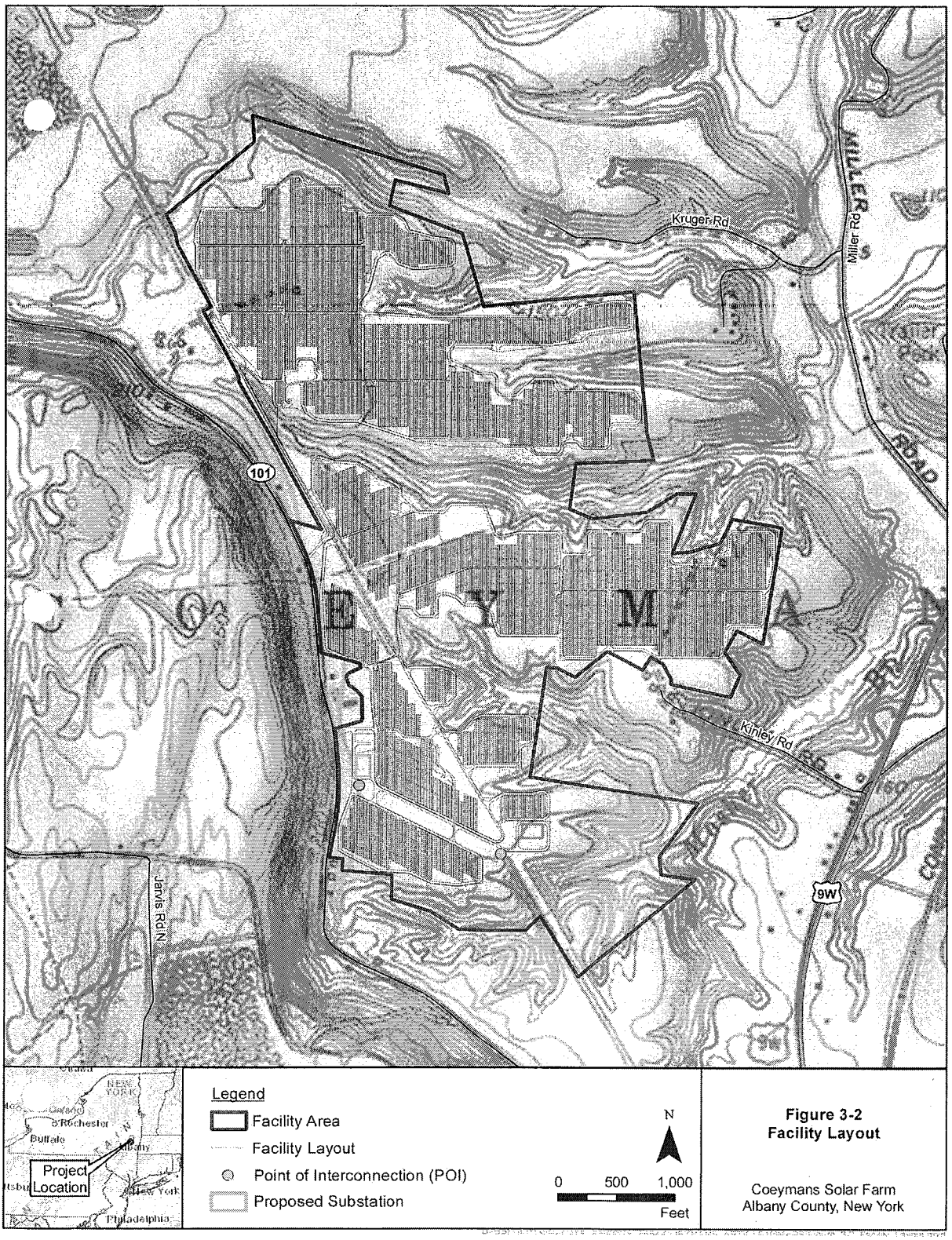


Figure 3-2
Facility Layout

Coeymans Solar Farm
Albany County, New York

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC

Coeymans Solar Farm

Case No. 17-F-0617

1001.27 Exhibit 27

Socioeconomic Effects

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF APPENDICES

EXHIBIT 27 Socioeconomic Effects

This Exhibit addresses the requirements specified in Stipulation 27. Each subsection of this Exhibit aligns with the subsections contained in Stipulation 27.

(a) Estimate of Construction Work Force

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (the Co-Applicants) have developed estimates of the workforce that would be required for construction of the Coeymans Solar Farm (the Facility). The estimated average construction workforce is presented by discipline for each quarter during construction in Table 27-1. Table 27-1 also provides a summary of total full-time equivalent (FTE) employment and includes an estimate of the peak construction level, which is expected to occur in the third quarter of construction. These estimates were developed by the Co-Applicants based on past experience with similar projects and consultations with contractors.

Table 27-1. Estimated Construction Workforce

Labor Discipline	Quarter				Total FTE Employment[1]	Peak Employment
	1	2	3	4		
Technicians	20	60	80	50	53	80
Laborers	20	35	40	20	29	40
Foremen	3	8	9	4	6	9
Equipment Operators	4	8	8	4	6	8
Construction Managers	1	3	3	2	2	3
Total	**48**	**114**	**140**	**80**	**96**	**140**

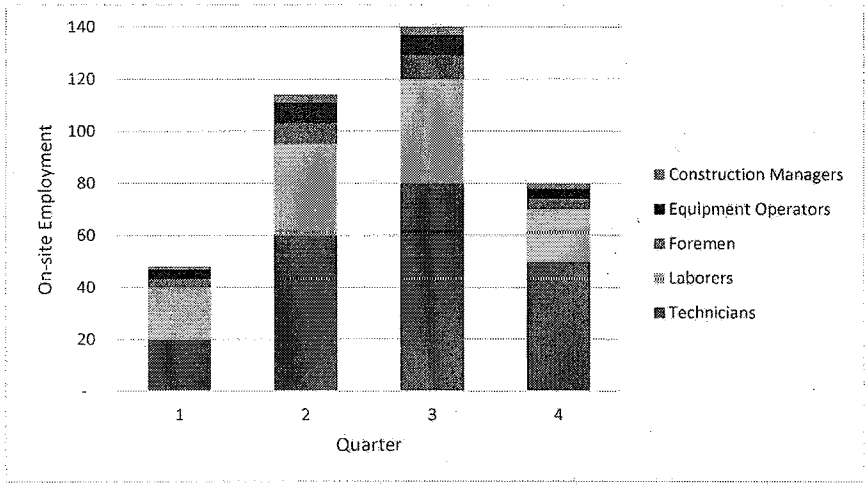
Notes:

FTE = full-time equivalent

[1] One FTE job equates to one full-time job for one year or 2,080-hour units of labor, with part-time or temporary jobs constituting a fraction of a job. Numbers are rounded to the nearest FTE.

Facility construction would provide on-site employment for an estimated total of 96 FTE jobs, with technicians accounting for more than half (55 percent [%]) of this total (Table 27-1). Viewed by quarter, estimated on-site employment would range from 48 workers in the first quarter and peak with 140 on-site workers during the third quarter (Table 27-1; Figure 27-1). Workers directly employed on-site during construction include technicians, laborers, foremen, equipment operators, and construction managers. These estimates do not include workers directly employed elsewhere in Albany County or New York State providing Facility-related technical services such as engineering design and permitting. Additional workers would also be employed to develop the interconnection facilities required to facilitate the transfer of electricity from the Facility.

Figure 27-1. Estimated Construction Workforce



The Co-Applicants anticipate that the majority of the on-site construction workforce would be hired locally to the extent workers are available, with an estimated 60% or more of the workforce expected to already reside in Albany County. In addition, the Co-Applicants anticipate that an additional 30% of the workforce would be hired from within New York State; therefore, total in-state hiring is expected to be approximately 90%. The shares of the workforce expected to be hired in Albany County and in-state would be equivalent to approximately 57 and 86 FTE jobs, respectively. Non-local workers would mainly be required for supervision and to supplement the local construction workforce.

An emphasis on local hiring has been noted elsewhere in the solar industry. The 2018 National Solar Jobs Census, for example, profiles a construction firm that provides Engineering, Procurement, and Construction (EPC) contracting services for utility-scale photovoltaic (PV) solar projects, noting that the firm typically performs about 1 million labor hours for solar projects, with direct hires from local communities accounting for over 60% of the total work performed (The Solar Foundation 2018). Another utility-scale EPC firm cited in the 2018 National Solar Jobs Census indicated that 90% of the construction workforce for an 80-megawatt project is typically hired from the local community (The Solar Foundation 2018).

Review of occupational data for the Capital Region labor market region indicates that the area has a large construction workforce pool. The Capital Region is one of 10 labor market regions defined by the New York State Department of Labor (NYSDOL) and consists of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington counties (NYSDOL 2019). Additional construction workforce resources are also available from elsewhere in the state. Occupational employment estimates for the disciplines required to construct the Facility are presented for the Capital Region and New York state as a whole in Table 27-2.

Table 27-2. Existing Construction Workforce

Labor Discipline	SOC Code	Capital Region[1]	New York State[2]
Construction Managers	11-9021	720	12,150
Foremen	47-4011	570	7,240
Technicians[3]	47-2111	2,320	41,920
Construction Equipment Operators	47-2073	1,430	12,520
Laborers	47-2061	3,990	60,780

Notes:

SOC = standard occupational classification

[1] The Capital Region labor market area consists of Albany, Columbia, Greene, Rensselaer, Saratoga, Schenectady, Warren, and Washington counties

[2] Statewide totals include the Capital Region, along with the other nine labor market regions defined by the NYSDOL.

[3] The SOC code for electricians is used to represent technicians.

Source: NYSDOL 2019.

(b) Estimate of Annual Construction Payroll and Direct Non-Payroll Expenditures

The Co-Applicants' annual construction payroll estimate is presented by discipline in Table 27-3. Construction would last for approximately one year. Total annual construction payroll is estimated to be approximately $8.3 million. These estimates are based on fully burdened hourly rates. An estimated 60% of the total payroll is expected to be paid to workers normally residing in Albany County, with an additional 30% (90% total) paid to workers from elsewhere in-state.

Table 27-3. Estimated Annual Construction Payroll

Labor Discipline	Total FTE Employment	Man-Hours[1, 2]	Hourly Rate ($)[2, 3]	Annual Payroll ($000)[2, 4]
Electricians	52.5	109,200	46	5,023
Laborers	28.8	59,800	30	1,794
Foremen	6.0	12,480	50	624
Equipment Operators	6.0	12,480	43	537
Construction Managers	2.3	4,680	61	285
Total	**95.5**	**198,640**	**N/A**	**8,263**
Estimated Share in Albany County	57.3	119,180	N/A	4,958
Estimated In-State Share	86.0	178,780	N/A	7,437

Notes:

FTE = full-time equivalent; N/A = not applicable

[1] Man-hours were estimated by multiplying total FTE employment by 2,080.

[2] Numbers may not sum due to rounding.

[3] Hourly rates are fully burdened.

[4] Annual payroll is presented in thousands of dollars.

Estimated direct non-payroll expenditures are presented in Table 27-4. These estimates do not include the cost of the solar modules and inverters that comprise a large share of the total Facility cost. The solar modules and inverters are assumed for the purposes of this evaluation to be purchased out-of-state and transported to the Facility Area for installation. Estimated direct non-payroll expenditures expected to occur

locally and in-state include structural and electrical balance of system materials, construction materials and supplies, equipment rentals, and construction services. Expenditures related to engineering and surveying, development and licensing, interconnection, and financing costs are also expected to occur in-state. Estimated expenditures for these items along with the shares expected to be procured in Albany County and New York State (including Albany County) are presented in Table 27-4. An estimated total of $3.6 million and $18.1 million in direct non-payroll expenditures are expected to occur in Albany County and in-state, respectively.

Table 27-4. Estimated Direct Non-Payroll Expenditures

Cost Category	Total Cost ($000)[1, 2]	Estimated Albany County Share		Estimated In-State Share	
		Percent	Cost ($000)[2]	Percent	Cost ($000)[2]
Balance of System Materials	13,182	0	0.0	50	6,591
Construction Materials and Equipment Rentals	2,563	50	1,282	100	2,563
Construction and Engineering Services	675	50	338	100	675
Development and Licensing	1,950	10	195	100	1,950
Interconnect Costs	3,550	50	1,775	100	3,550
Total	**21,920**	**16**	**3,589**	**70**	**15,329**

Notes:

[1] Total cost is only provided for items with an Albany County and/or in-state component. Solar modules and inverters are assumed to be purchased out-of-state and transported to the site for installation. Detailed total cost estimates are presented in Exhibit 14.

[2] Estimated costs are presented in thousands of dollars.

(c) Range of Estimates of Annual Secondary Employment and Economic Activity during Construction

Construction projects typically provide a stimulus to the local economy as project-related goods and services are purchased locally and local labor is used. Total estimated construction phase impacts for Albany County and New York are summarized in Table 27-5. These estimates include direct and secondary (indirect and induced) impacts and would be limited to the duration of the construction phase of the Facility, which is expected to take approximately one year. Total (direct, indirect, and induced) impacts are presented as a range to reflect the uncertainty associated with the direct input estimates and the share of these inputs expected to occur locally (in Albany County and/or New York State). For the purposes of this presentation, values are assumed to vary from 95% to 105% of the direct, indirect, and induced impact estimates developed for this project. Estimates for New York are for the entire state including Albany County.

Job estimates are presented in FTEs, with each identified job representing 12 months (2,080 hours) of employment. Earnings are expressed in millions of dollars and represent the sum of employee compensation (wages) and proprietary (business) income. Output, also expressed in millions of dollars, is a broad measure of economic activity that represents the total value of goods and services produced as a result of Facility construction.

Viewed as a range, construction of the Facility is expected to require 54 to 60 direct (on-site) jobs that would be filled by Albany County residents. Construction of the Facility would also support secondary (indirect

and induced) employment, income, and output elsewhere in the county, with indirect impacts expected to support 17 to 18 jobs in Albany County and induced impacts expected to support 19 to 21 jobs. Overall, construction of the Facility is expected to support approximately $7.3 million to $8.1 million in earnings in Albany County, with total output of approximately $11.0 million to $12.2 million (Table 27-5). In addition, the Co-Applicants anticipate that an additional 28 to 30 direct (on-site) jobs would be filled by workers from elsewhere in New York, for an in-state total of 82 to 90 direct jobs. Viewed at the state-level, Facility construction would support 70 to 77 indirect and 52 to 58 induced jobs, with total (direct, indirect, and induced) earnings of $17.0 million to $18.8 million and total output of approximately $33.3 million to $36.8 million (Table 27-5).

Table 27-5. Total Construction Phase Impacts in Albany County and New York

Impact Type/Measure[1]	Jobs[2, 3]	Earnings ($ million)[3, 4]	Output ($ million)[3, 4]
Albany County			
Direct Impacts[5]	54.4 to 60.2	4.71 to 5.21	4.71 to 5.21
Indirect Impacts	16.6 to 18.4	1.48 to 1.64	3.09 to 3.42
Induced Impacts	18.8 to 20.8	1.14 to 1.26	3.24 to 3.58
Total Impacts	**89.8 to 99.3**	**7.33 to 8.10**	**11.04 to 12.20**
New York State[6]			
Direct Impacts[5]	81.7 to 90.3	7.07 to 7.81	7.07 to 7.81
Indirect Impacts	69.5 to 76.8	6.31 to 6.97	16.46 to 18.19
Induced Impacts	52.3 to 57.9	3.63 to 4.02	9.74 to 10.76
Total Impacts	**203.5 to 224.9**	**17.01 to 18.80**	**33.26 to 36.76**

Notes:

[1] Estimated impacts are presented as a range to reflect uncertainty associated with the direct input estimates and the share of these expenditures expected to occur locally. Values are assumed to vary from 95% to 105% of the direct, indirect, and induced impact estimates developed for this project.

[2] Jobs are FTE for a period of one year (1 FTE = 2,080 hours). Direct jobs and earnings include only those positions that would be filled by residents of the affected regions (i.e., Albany County and New York State). Positions filled by out-of-region workers are not included in these estimates.

[3] Numbers may not sum due to rounding.

[4] Earnings and output are expressed in millions of dollars in 2019 dollars.

[5] The direct impact estimates presented here are the on-site employment and payroll estimates developed by the Co-Applicants (see Tables 27-1 and 27-3). Direct jobs include only those that would be filled by Albany County and New York residents, respectively. Values shown here are presented as a range as noted above.

[6] Estimates for New York are for the entire state including Albany County.

(1) Economic Multipliers and Assumptions

The preceding section presents the direct effects associated with Facility construction, as well as the secondary (indirect and induced) "multiplier" effects. Indirect and induced effects were estimated using the IMPLAN model and software. IMPLAN is a commercially available economic modeling package widely used to assess the economic impacts of energy and many other types of projects. Impacts for this analysis were assessed separately at the local and state level. Local impacts were assessed using a single county model for Albany County. State impacts were evaluated using a separate state-level model for the State of New York. Construction phase impacts are reported in the preceding section; operation-related impacts are presented in Exhibit 27(e). These analyses used 2017 IMPLAN data, which is the most recent data available.

The IMPLAN model compiles and aggregates national and regional economic and demographic data to calculate inter-industry linkages and estimate the multiplier effects of changes in demand for goods and services on the modeled economy. Linkages are modeled through input-output tables that account for all dollar flows between different sectors of the economy. IMPLAN models how spending in one sector of the economy is spent and re-spent in other sectors of the economy. By tracing these linkages, the model approximates the flows of initial Facility-related spending through the local economy based on the supply lines connecting the various economic sectors. These linkages vary by economic sector and also through regional differences in local employment, spending, and consumption patterns. The amount spent locally decreases with each successive transaction away from the initial expenditure due to the effects of savings, taxes, or other activities that happen outside the local economy, known as leakages.

The economic relationships modeled by IMPLAN allow the user to estimate the overall change in the economy that would result from construction and operation of a proposed project. The dollars spent on project construction and operation within the selected analysis area are analyzed to determine the total economic impact within that area. The direct investments in project construction and operation trigger successive rounds of spending that result in an overall increase in employment, labor income, and economic output in the local economy.

Economic multipliers derived from the model are used to estimate total economic impacts. Total economic impacts consist of three components: direct, indirect, and induced impacts. These three components may be described as follows:

- The *direct* impact component consists of expenditures made specifically for the proposed Facility, such as construction labor and materials. These direct impacts generate economic activity elsewhere in the local economy through the multiplier effect, as initial changes in demand "ripple" through the local economy and generate indirect and induced impacts.
- *Indirect* impacts are generated by the expenditures on goods and services by suppliers who provide goods and services to the construction project. Indirect effects are often referred to as "supply-chain" impacts because they involve interactions among businesses.
- *Induced* impacts are generated by the spending of households associated either directly or indirectly with the proposed Facility. Workers employed during construction, for example, will use their income to purchase groceries and other household goods and services. Workers at businesses that supply the facility during construction or operation will do the same. Induced effects are sometimes referred to as "consumption-driven" impacts.

The IMPLAN analysis prepared for this project employed what is known as an "analysis-by-parts" approach to clearly separate direct and secondary (indirect and induced) impacts. The direct effects were estimated outside the model by the Co-Applicants based on past project experience and consultation with contractors (see Tables 27-1, 27-3, and 27-4). Construction-related indirect and induced impacts were estimated by matching the local payroll and estimated direct non-payroll expenditures identified in Tables 27-3 and 27-4 with the corresponding IMPLAN sectors identified in Table 27-6.

Table 27-6. Modeled Construction Expenditures by Sector

Cost Category[1]	IMPLAN Sector Number	IMPLAN Sector Name
Construction-Related Payroll	5001	Employee compensation
Balance of System Materials	3238	Fabricated structural metal products
	3339	Other communication and energy wires

Cost Category[1]	IMPLAN Sector Number	IMPLAN Sector Name
Construction Materials and Equipment Rentals	3395	Wholesale trade distribution services
	3445	Commercial and industrial machinery and equipment rental and leasing
Construction and Engineering Services	3449	Architectural, engineering and related services
Development and Licensing	3449	Architectural, engineering and related services
Interconnection Costs	3054	Construction of new power and communication structures

(2) Study Limitations

The economic impact estimates presented in this report are indicative, preliminary estimates based on a certain set of assumptions and estimated model inputs. These assumptions and inputs are based on the best data and information available at this stage in the Facility development process. Direct Facility inputs including workforce estimates and Facility-related expenditures are preliminary estimates based on the Co-Applicants past project experience and consultation with contractors. Other key modeling inputs include the share of expenditures expected to occur in the analysis area for each model, as well as the share of workers expected to be hired locally. An EPC contractor has not yet been selected and the final actual costs and estimated local shares could, therefore, vary from those used in this analysis. The Co-Applicants will seek the most competitive price before executing the construction agreements. Recognizing the uncertainty regarding these inputs total (direct, indirect, and induced) impacts are, as noted above, presented as a range, with values assumed to vary from 95% to 105% of the direct, indirect, and induced impact estimates developed for the Facility.

Economic impact analysis typically assesses changes in regional economic indicators, such as employment, income, and economic output, that are anticipated to result from implementation of a project compared to current conditions. This type of analysis does not quantify net economic benefits or economic value, which are typically estimated using social benefit-cost analysis. This is the case with the economic impact analyses reported in this Exhibit, which, in accordance with standard practice, limit the analysis to total or gross jobs that would be supported by construction and operation of the Facility.

As a result, the estimates of secondary employment and economic activity presented in this Exhibit do not assess the long-term impacts of potential changes in electricity rates resulting from investment in the Facility[1], the economic development losses associated with the possible displacement of other local energy sources, or the displacement of other types of economic activity due to investment in this Facility. Similarly, the analyses reported in this Exhibit do not estimate or report other types of impacts, such as improvements in transmission or grid reliability, reductions in air or water emissions, reductions in water use from power generation or improvements to the stability of electricity prices that might result from the reduced fuel price risk of renewable sources of electricity. Nor do they account for job creation that derive from other state policies such as community solar, distributed generation, Reforming the Energy Vision (REV), and energy storage and replacement of aging peaking plants.

Economic impact estimates are also gross (as opposed to net) in that they do not account for the fact that workers employed on this Facility could alternatively be employed elsewhere and may turn down other

[1] Although they are not part of this economic impacts analysis, the results of price modeling prepared for the Facility are presented in Exhibit 8.

opportunities to work on the Facility. Similarly, jobs supported elsewhere in the economy (i.e., indirect and induced jobs), identified as FTEs, are not necessarily additional jobs. Secondary impacts may support workers in their existing positions, helping them retain their jobs or expand their hours.

(d) Estimate of Annual Operation Jobs, Payroll, and Non-Payroll Expenditures

The Co-Applicants' estimate of the number of jobs and on-site payroll for a typical year once the Facility is in operation is presented by discipline in Table 27-7. Facility operation would provide direct employment for the equivalent of 2 or more FTE jobs, with a corresponding annual payroll of approximately $116,000. Estimated payroll is based on fully burdened hourly rates, with the total amount expected to be paid to workers in Albany County.

Table 27-7. Estimated Annual Operation Employment and Payroll by Discipline

Labor Discipline	Total FTE Employment	Man-Hours[1, 2]	Hourly Rate ($)[2, 3]	Annual Payroll ($000)[2]
Field Technicians	1.0	2,080	33	68
Administrative	0.5	1,040	26	27
Site Management	0.4	832	20	16
Ops monitor/control	0.1	208	26	5
Total	**2.0**	**4,160**	**N/A**	**116**

Notes:

FTE = full-time equivalent; N/A = not applicable

[1] Man-hours were estimated by multiplying total FTE employment by 2,080.

[2] Numbers may not sum due to rounding.

[3] Hourly rates are fully burdened.

Estimated non-payroll expenditures for a typical year once the Facility is in operation are presented in Table 27-8, along with the estimated Albany County and in-state shares of these expenditures. Total annual expenditures are estimated to be about $895,000, with much of this expected to occur in Albany County.

Table 27-8. Estimated Annual Operation Non-Payroll Expenditures

Cost Category	Total Cost ($000)[1]	Estimated Albany County Share		Estimated In-State Share	
		Percent	Cost ($000)[1]	Percent	Cost ($000)[1]
Equipment Repair and Maintenance	110	20	22	60	66
Landscaping and Site Management	80	100	80	100	80
Utilities	5	100	5	100	5
Vehicle Repair and Maintenance	15	100	15	100	15
Vehicle Fuel	5	100	5	100	5
Security	20	100	20	100	20
Operation Monitoring	30	0	0	0	0
Land Acquisition, Conservation Management, and Taxes and Fees	580	99	575	100	580
Insurance, Management Fees	50	0	0	100	50
Total	**895**	**81**	**722**	**92**	**821**

[1] Estimated costs are presented in thousands of dollars.

(e) Range of Estimates of Annual Secondary Employment and Economic Activity during Operation

Construction projects typically provide a stimulus to the local economy during the construction phase, as described in Exhibit 27(c). Once construction is completed, project operation provides extended economic impacts over the long-term through spending on labor, materials and equipment, services, payments to land owners, and tax revenues. Total (direct, indirect, and induced) impacts are presented as a range to reflect the uncertainty associated with the direct input estimates and the share of these inputs expected to occur locally (in Albany County and/or New York State). For the purposes of this presentation, values are assumed to vary from 95% to 105% of the direct, indirect, and induced impact estimates developed for this project. Estimates for New York are for the entire state including Albany County.

Viewed as a range, Facility operation is expected to involve direct employment for 1.9 to 2.1 FTE jobs for workers anticipated to reside in Albany County. Facility operation would also support secondary (indirect and induced) employment, income, and output elsewhere in the county, with indirect impacts expected to support 3.8 to 4.2 jobs in Albany County and induced impacts expected to support 1.2 to 1.4 jobs. Overall, operation of the Facility is expected to support approximately $370,000 to $410,000 in total earnings in Albany County, with total output of approximately $680,000 to $750,000. Viewed at the state-level, facility operation would support an estimated total (direct, indirect, and induced) of 7.4 to 8.1 jobs, total earnings of $480,000 to $540,000 and total output of approximately $0.9 million to $0.99 million (Table 27-9). These annual average impacts are expected to occur over the life of the Facility.

Table 27-9. Total Operation Phase Impacts in Albany County and New York

Impact Type/Measure	Jobs[1, 2]	Earnings ($ million)[2, 3]	Output ($ million)[2, 3]
Albany County			
Direct Impacts[4]	1.9 to 2.1	0.11 to 0.12	0.11 to 0.12
Indirect Impacts	3.8 to 4.2	0.18 to 0.20	0.35 to 0.39
Induced Impacts	1.2 to 1.4	0.08 to 0.08	0.21 to 0.24
Total Impacts	**7.0 to 7.7**	**0.37 to 0.41**	**0.68 to 0.75**
New York State[5]			
Direct Impacts[4]	1.9 to 2.1	0.11 to 0.12	0.11 to 0.12
Indirect Impacts	3.7 to 4.1	0.25 to 0.28	0.45 to 0.50
Induced Impacts	1.8 to 2.0	0.12 to 0.14	0.33 to 0.37
Total Impacts	**7.4 to 8.1**	**0.48 to 0.54**	**0.90 to 0.99**

Notes:

[1] Estimated impacts are presented as a range to reflect uncertainty associated with the direct input estimates and the share of these expenditures expected to occur locally. Values are assumed to vary from 95% to 105% of the direct, indirect, and induced impact estimates developed for this project.

[2] Jobs are FTE for a period of one year (1 FTE = 2,080 hours).

[3] Numbers may not sum due to rounding.

[4] Earnings and output are expressed in millions of dollars in 2019 dollars.

[5] Direct impact estimates were developed by the Co-Applicants (see Table 27-7). Direct jobs include only those that would be filled by Albany County and New York residents, respectively. Values shown here are presented as a range as noted above.

[6] Estimates for New York are for the entire state including Albany County.

(1) Economic Multipliers and Assumptions

The preceding section presents the direct effects associated with Facility operation, as well as the secondary (indirect and induced) "multiplier" effects. The direct effects were estimated by the Co-Applicants based on past project experience and consultations with contractors. The indirect and induced effects were estimated using the IMPLAN model and software. IMPLAN and its use in this analysis is discussed further in Exhibit 27(c). The IMPLAN analysis prepared for this project employed what is known as an "analysis-by-parts" approach to clearly separate direct and secondary (indirect and induced) impacts. The direct effects were estimated outside the model by the Co-Applicants based on past project experience and consultation with contractors (see Table 27-7). Operation-related indirect and induced impacts were estimated by matching the local payroll and estimated direct non-payroll expenditures identified in Tables 27-7 and 27-8 with the corresponding IMPLAN sectors identified in Table 27-10.

Table 27-10. Modeled Operation Expenditures by Sector

Cost Category[1]	IMPLAN Sector Number	IMPLAN Sector Name
Operation-Related Payroll	5001	Employee compensation
Equipment Repair and Maintenance	3507	Commercial and industrial machinery equipment repair
Landscaping Services (or grazing)	3469	Landscape and horticultural services
Utilities	3041	Electricity
Vehicle Repair and Maintenance	3504	Automotive repair and maintenance, except car washes
Vehicle Fuel	3402	Retail services - Gasoline stores
Security	3467	Investigation and security services
Land Acquisition[2]	NA	Savings, Investment, Banking, Real Estate
	1005	Households 50-70k
	3019	Support activities for agriculture and forestry
	3057	Newly constructed commercial structures, including farm structures
	3203	Farm machinery and equipment
Conservation management	3455	Environmental and other technical consulting services
Taxes and Fees	NA	State/Local Gov NonEducation

Notes:

NA – not applicable

[1] The estimated Insurance, Management Fees category identified in Table 27-8 was not modeled as part of this analysis.

[2] Land acquisition expenditures were modeled based on typical expenditures made by recipients of easement payments from the Agricultural Conservation Easement Program (U.S. Department of Agriculture 2014). The share of typical expenditures made to savings, investment, banking, and real estate was not included in the analysis.

(2) Study Limitations

The economic impact estimates presented in this report are indicative, preliminary estimates based on a certain set of assumptions and estimated model inputs. These and other study limitations are discussed in Exhibit(c)(2).

(f) Estimate of Incremental School District Operating and Infrastructure Costs

The Facility is located in the Ravena-Coeymans-Selkirk School District. The School District will likely benefit from the Facility with the Co-Applicants making annual payments (see Exhibit 27(h) and (i)). Construction and operation of the Facility is unlikely to cause an increase in enrollment.

Facility construction would take place over a 1-year period, with total estimated on-site employment equivalent to 96 FTE jobs (Table 27-1). On-site employment is expected to peak during the third quarter, with a total of approximately 140 workers employed on-site. The Co-Applicants estimate that 90% of this workforce would be hired from in-state, with approximately 70% of the total expected to reside within daily commuting distance. The remaining 30% of the workforce would be expected to temporarily relocate for the duration of their employment. Based on these estimates, the number of workers temporarily relocating would range from 14 during the first quarter to a peak of 42 workers during the third quarter, with total non-local construction employment expected to be equivalent to 29 FTE jobs. None of these workers are expected to permanently relocate to the area and very few, if any, are expected to be accompanied by family members. As a result, construction of the Facility is not expected to add any new students to the local school district.

This will also be the case during Facility operation, in which the equivalent of about 2 FTE jobs will be filled by New York State residents (Table 27-7). Therefore, Facility operation is not expected to noticeably affect local school enrollment.

The Co-Applicants consulted with the Ravena-Coeymans-Selkirk School District Superintendent and confirmed that the Facility is not expected lead to an increase in the school district's operating and infrastructure costs (Appendix 27-1).

(g) Estimate of Incremental Municipal, Public Authority, or Utility Operating and Infrastructure Costs

The Co-Applicants consulted with the following entities in order to appropriately estimate the incremental operating and infrastructure costs that could result from the Facility:

- Ravena-Coeymans-Selkirk School District
- Town of Coeymans Supervisor
- Town of Coeymans Police Department
- Town of Coeymans Highway Superintendent
- Coeymans Hollow Fire Department

A copy of the letter, sent on January 29, 2019, to each of these entities is provided in Appendix 27-1. Response was received from the Town of Coeymans Highway Superintendent on January 30, 2019 who concluded that no incremental operating or infrastructure costs would result from the Facility. To date, no other response has been received. As the Facility is not proposed to interconnect to any existing utility (i.e., water, sewer), these entities were not consulted.

Based on the size and type of the Facility, the Co-Applicants do not anticipate that any incremental operating or infrastructure costs will result from construction and operation of the Facility.

(h) Identification of Jurisdictions that Levy Real Property Taxes or Benefit Assessments or User Fees

The Facility falls within the following jurisdictions that are anticipated to receive a payment in lieu of taxes (PILOT) payments from the Co-Applicants:

- Albany County
- Town of Coeymans
- Ravena-Coeymans-Selkirk School District
- Ravena Fire District

(i) Fiscal Tax Benefit Increase for Jurisdiction

The Co-Applicants anticipate executing a PILOT agreement with the entities identified in Exhibit 27(h). The specific terms of the PILOT agreement have not yet been finalized, but these agreements are anticipated to increase the revenues of the affected jurisdictions. Total payments are estimated to be approximately $3.6 million over the 30-year life of the Facility.

(j) Fiscal Cost to Jurisdiction

The Co-Applicants do not anticipate any measurable increase in municipal costs to be incurred as a result of the Facility. Consultation with the affected municipalities, public authorities, and utilities did not identify additional costs that will be incurred as a result of construction and operation of the Facility (see Exhibit 27(g)). The estimated PILOT payments discussed in Exhibit 27(i) above would represent a net increase in local revenues.

(k) Contingency Plans for Fire or Hazardous Waste Substance Incident

A description of all contingency plans to be implemented in response to the occurrence of a fire emergency or a hazardous substance incident is provided in Exhibit 18. Consultations with the affected local emergency response organizations indicated that these plans can be fulfilled by existing emergency response capacity.

(l) Smart Growth Public Infrastructure Criteria

The Facility is a privately funded energy project and, as such, is not subject to New York Environmental Conservation Law (ECL) Article 6, Section 107 requiring the construction of new or expanded "public infrastructure" to meet certain Smart Growth Criteria. New York State's Smart Growth Public Infrastructure Policy Act outlines 11 criteria for evaluating public infrastructure. While not required, the Facility's consistency with Smart Growth Criteria is addressed below for illustrative purposes.

Criterion 1: To advance projects for the use, maintenance or improvement of existing infrastructure

The development of the Facility will improve the existing energy infrastructure by creating an economically viable, solar-powered electric generating facility that provides renewable energy to the New York State power grid. The Facility's solar panels will generate approximately 40 megawatts of renewable energy. The Facility will use the existing power grid for the distribution of electricity to end users. Transportation infrastructure will be used for the conveyance of equipment and construction materials. No long-term impacts to the transportation infrastructure are anticipated. Based on the contribution to the state power grid and the limited use of transportation infrastructure, the Facility is consistent with Smart Growth Criterion 1.

Criterion 2: To advance projects located in municipal centers

New York State's Smart Growth Public Infrastructure Policy Act defines "municipal centers" as:

> areas of concentrated and mixed land uses that serve as centers for various activities, including, but not limited to, central business districts, main streets, downtown areas, brownfield opportunity areas, downtown areas of local waterfront revitalization program areas, transit-oriented development, environmental justice areas, and hardship areas (ECL § 6-107), as well as areas adjacent to municipal centers, which have clearly defined borders, are designated for concentrated development in the future in a municipal or regional comprehensive plan, and exhibit strong land use, transportation, infrastructure and economic connections to a municipal center; and areas designated in a municipal or comprehensive plan, and appropriately zoned in a municipal zoning ordinance, as a future municipal center (ECL § 6-107).

The development of solar power projects requires a large land area. As such, solar projects, such as the Facility, are not typically located in municipal centers. The Facility is, however, located in eastern New York, near the city of Albany.

Criterion 3: To advance projects in developed areas or areas designated for concentrated infill development in a municipally approved comprehensive land use plan, local waterfront revitalization plan and/or brownfield opportunity area plan

Utility-scale solar projects are generally incompatible with infill development and waterfront revitalization. The Facility is not located in a designated brownfield area.

Criterion 4: To protect, preserve, and enhance the state's resources, including agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archeological resources

The Facility is consistent with Criterion 4. Exhibits 17, 20, 22, 23, and 24, and related studies, analyze the potential effects on agricultural land, forests, surface and groundwater, air quality, recreation and open space, scenic areas, and significant historic and archaeological resources. These analyses illustrate that the Facility has avoided and/or minimized impacts to the relevant resources to the maximum extent practicable. Although the Facility Area will be taken out of agricultural production for the operational life of the Facility, upon decommissioning the land may be returned to agricultural use. The Facility, therefore, is protecting the land from other development that would render it no longer useful for agricultural production. The majority of on-site trees will remain, with tree clearing minimized to the maximum extent practicable; additional vegetation will be planted to provide screening from surrounding properties. No significant effects to recreational and open spaces, scenic areas or cultural resources are anticipated from the Facility. Any remaining impacts are outweighed by the benefit provided by the Facility, including the reduction of annual statewide emissions by approximately 54,738 tons of carbon dioxide (CO_2). In addition, the landowner has indicated that they will use the lease revenue from the Facility to support their existing agricultural operations on adjacent lands and elsewhere.

Criterion 5: To foster mixed land uses and compact development, downtown revitalization, brownfield redevelopment, the enhancement of beauty in public spaces, the diversity and affordability of housing in proximity to places of employment, recreation, and commercial development and the integration of all income and age groups

The Facility is proposed in the Town of Coeymans. The area is not conducive to mixed land uses, compact development or the development of diverse and affordable housing in the proximity to places of employment, recreation and commercial development. Further, as mentioned previously, a utility-scale solar farm requires significant open space and, thus, is incompatible with downtown revitalization. The proposed location is not in a brownfield. Therefore, compliance with Criterion 5 is impracticable.

Criterion 6: To provide mobility through transportation choices including improved public transportation and reduced automobile dependency

The Facility will not impact transportation choices in the area and, therefore, Criterion 6 is not applicable.

Criterion 7: To coordinate between state and local government and intermunicipal and regional planning

The Co-Applicants have been involved in public outreach to local government and planning agencies throughout the development and review of the Facility, in accordance with the requirements of the Article 10 process and the Public Involvement Program (PIP) Plan prepared specifically for the Facility. The Master List of Stakeholders, provided as Appendix 2-A of this Application, provides a list of identified host community, adjacent community, county, and agency stakeholders. Appendix 2-B provides information on the public outreach efforts, including meetings with local community and governmental representatives. These coordination efforts are consistent with Criterion 7.

Criterion 8: To participate in community-based planning and collaboration

As described above, the Co-Applicants have conducted and will continue to conduct stakeholder outreach throughout the development and review of the Facility. These efforts have been conducted in accordance with the requirements of the PIP Plan, which includes stakeholder consultation and other forms of engagement, public education, public meetings, ample notification periods, and public comment periods at key milestones (see Exhibit 2 and the Meeting Log, provided as Appendix 2-B, for more information). Information is also available to the community via the Facility's website, www.coeymanssolarfarm.org. These outreach efforts satisfy Criterion 8.

Criterion 9: To ensure predictability in building and land use codes

The Facility will have no influence over building and land use codes in Albany County or in the Town of Coeymans and, as a result, Criterion 9 is not applicable.

Criterion 10: To promote sustainability by strengthening existing and creating new communities which reduce greenhouse gas emissions and do not compromise the needs of future generations, by among other means encouraging broad based public involvement in developing and implementing a community plan and ensuring the governance structure is adequate to sustain its implementation

Solar power, a renewable energy source, generates electricity without the by-product of greenhouse emissions and can reduce the dependence on conventional power plants, thereby reducing the emissions of conventional air pollutants. In fact, the Facility is expected to reduce nitrogen oxides (NO_x), sulfur dioxide (SO_2), and CO_2 emissions from the power sector in New York State. Upon commercial operation, the Facility is expected to reduce the annual statewide emissions by approximately 54,738 tons of CO_2, the equivalent

of taking over 10,500 cars off the road. The Facility will help the state achieve the goal established in New York's Green New Deal that New York's power be 100% carbon-free by 2040, with 70% provided by renewable electricity by 2030 (New York State Energy Research and Development Authority [NYSERDA] 2019). As this Facility will expand the state's clean, renewable energy infrastructure and reduce greenhouse gas emissions, the Facility is consistent with and will help the state achieve its goals in Criterion 10.

Criterion 11: To mitigate future physical climate risk due to sea level rise, and/or storm surges and/or flooding, based on available data predicting the likelihood of future extreme weather events, including hazard risk analysis data, if applicable

The Facility is consistent with New York's efforts to expand reliance on renewable energy sources and reduce greenhouse gas emission. As described in Climate Smart Communities Guide to Local Action: Taking Steps to Combat Climate Change, reducing greenhouse gas emissions "will help stabilize atmospheric GHGs (greenhouse gas) at manageable levels and avoid severe climatic changes." The State recognizes that this action will "minimize the risks of climate change and reduce its long-term costs" (New York State Department of Environmental Conservation [NYSDEC] 2017). Solar power, as a zero-emission, renewable energy source, not only expands available power generation capabilities without increasing greenhouse gas emissions, the addition of a solar power project will also result in a decrease in existing greenhouse gas emission levels as solar power displaces generation from fossil fuel facilities. Therefore, the Facility is expected to have a positive impact on the mitigation of future physical climate risk, thereby supporting Smart Growth Criterion 11.

(m) Feasibility of Local Access to Energy Generated by Facility

Local access to energy generation from the Facility could be feasible if the Town of Coeymans were to become a Community Choice Aggregation (CCA). Becoming a CCA is a method for procuring energy that provides local governments an alternative to the local utility as the default supplier of electricity and/or natural gas. Being a CCA allows local governments to work together through a shared purchasing model to seek proposals for the total amount of electricity being purchased within the boundaries of participating municipalities (NYSERDA 2016). Energy could be made available for sale from the Facility if the Town of Coeymans were to become a CCA. The Co-Applicants have informed the Town of this option. In addition, the Co-Applicants have discussed the Facility with an energy procurement consultant and broker that designs and operates community energy aggregations.

Economic Impact Assessment

for the

Coeymans Solar Farm

Coeymans, Albany County, New York

May 2019

Prepared for:

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TETRA TECH

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LIST OF ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AC	alternating current
CR	County Route
DC	direct current
EPC	Engineering, Procurement, and Construction
the Facility	Coeymans Solar Farm
the Facility Area	an approximately 436-acre area in the town of Coeymans, Albany County on which the Coeymans Solar Farm is proposed
FTE	full-time equivalent
Hecate Energy	Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC
MW	megawatt
MWh	megawatt-hour
O&M	operation and maintenance
PV	photovoltaic
United States	US

1.0 FACILITY OVERVIEW AND MAJOR FINDINGS

Hecate Energy Albany 1 LLC and Hecate Energy Albany 2 LLC (collectively Hecate Energy) propose to construct a solar photovoltaic (PV) electric generating facility in the town of Coeymans, Albany County, New York (the Facility). The Facility will have a nameplate capacity of approximately 40 megawatt (MW) (alternating current [AC]) and is expected to generate approximately 73,000 megawatt-hours (MWh) of energy annually. This will be enough electricity to meet the average annual consumption of over 10,000 households, based on average annual electric consumption of 6.9 MWh for New York State.[1] The Facility will require significant capital investment, with Facility construction expected to last for approximately one year. Operation is expected to commence at the conclusion of construction and continue for at least 30 years.

The Facility will be located on approximately 436 acres of private property located in the town of Coeymans, Albany County between United States (US) Route 9W and County Route (CR) 101 (the Facility Area) (Figures 1 and 2). The Facility will consist of solar arrays and associated infrastructure and occupy approximately 50 percent of the total Facility Area. The Facility will use the same type of PV solar modules that are installed on over one million homes in the US. The PV panels for the Facility will be ground-mounted on a low-profile racking system that will be supported by small I-beam posts driven into the ground; resulting in an extremely small ground disturbance footprint associated with the panels. The Facility will have two points of interconnection (POIs) with the electric grid on existing National Grid 115-kilovolt (kV) transmission lines, owned and operated by National Grid, that cross the Facility Area.

This report prepared on behalf of Hecate Energy assesses the economic impact of the Facility using the IMPLAN economic modeling package. Impacts are assessed separately at the local (Albany County) and state level and presented in terms of employment, income, and economic output. The report also includes a discussion of potential impacts to local operating and infrastructure costs.

1.1 One-Time Impacts Related to Facility Construction

Economic impacts related to Facility construction are considered one-time impacts because they are limited to the construction period. Facility construction would support temporary employment, income, and economic output in Albany County and elsewhere in New York State.

- Construction of the Facility is expected to involve approximately 96 onsite jobs. An estimated 57 of these jobs would be filled by workers who typically reside in Albany County, with an additional 29 jobs filled by workers from elsewhere in New York State. These jobs include technicians, laborers, foremen, equipment operators, and construction managers.
- Facility construction would also support employment, labor income, and economic output in other sectors of the New York State economy. Indirect impacts would support an estimated 73 jobs in the New York State, with induced impacts expected to support an additional 55 jobs. An estimated 18 indirect jobs and 20 induced jobs would be supported in Albany County.
- Overall, construction of the Facility is expected to support 214 total (direct, indirect, and induced) jobs in the New York State and approximately $17.9 million in labor income, with total economic output of approximately $35.0 million. In Albany County, Facility construction would support an estimated 97 total jobs and approximately $7.7 million in labor income, with total economic output of approximately $11.6 million.

[1] United States Energy Information Administration. 2019. 2017 Average Monthly Bill – Residential (By State). January 15. Available online at: https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf.

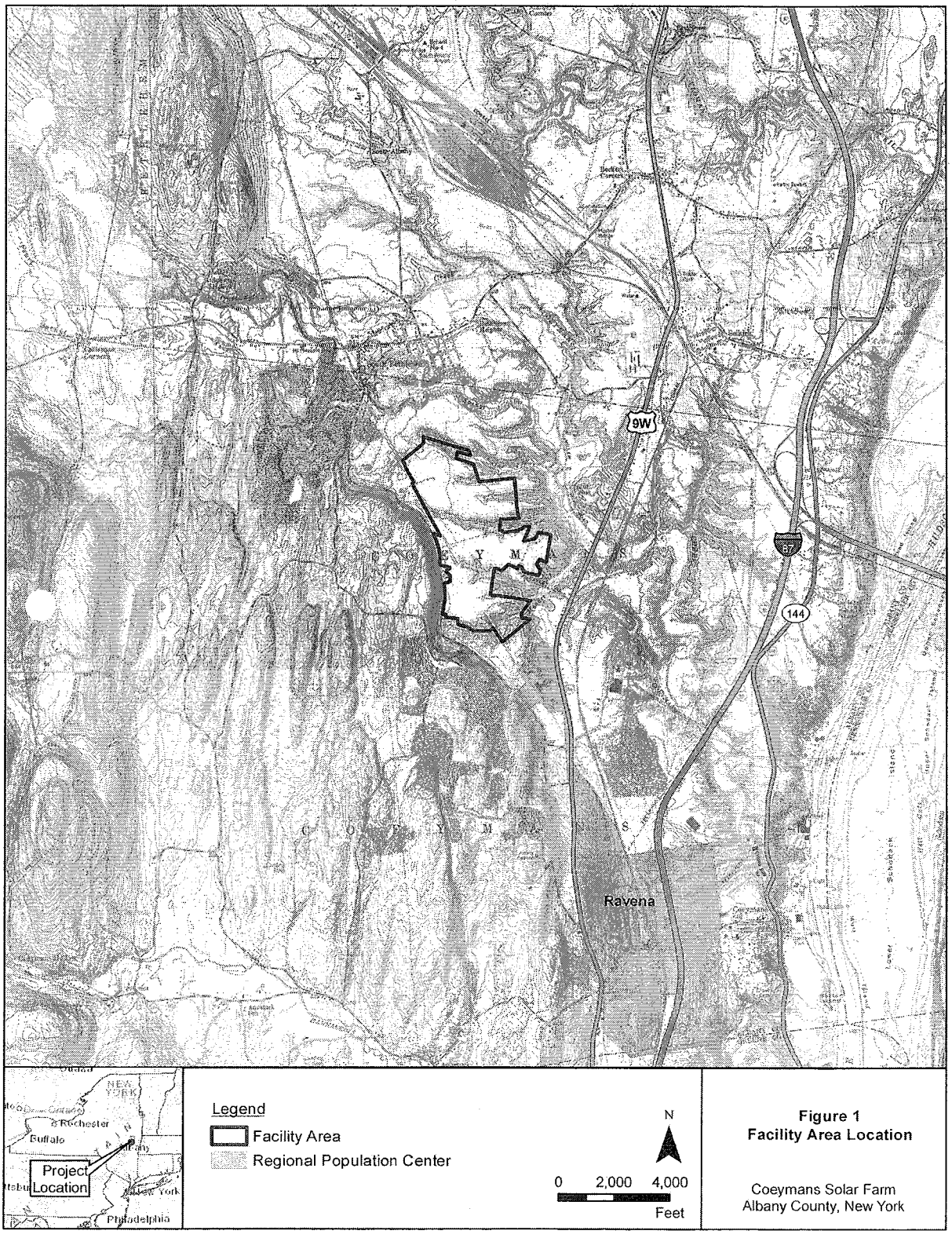


Figure 1
Facility Area Location

Coeymans Solar Farm
Albany County, New York

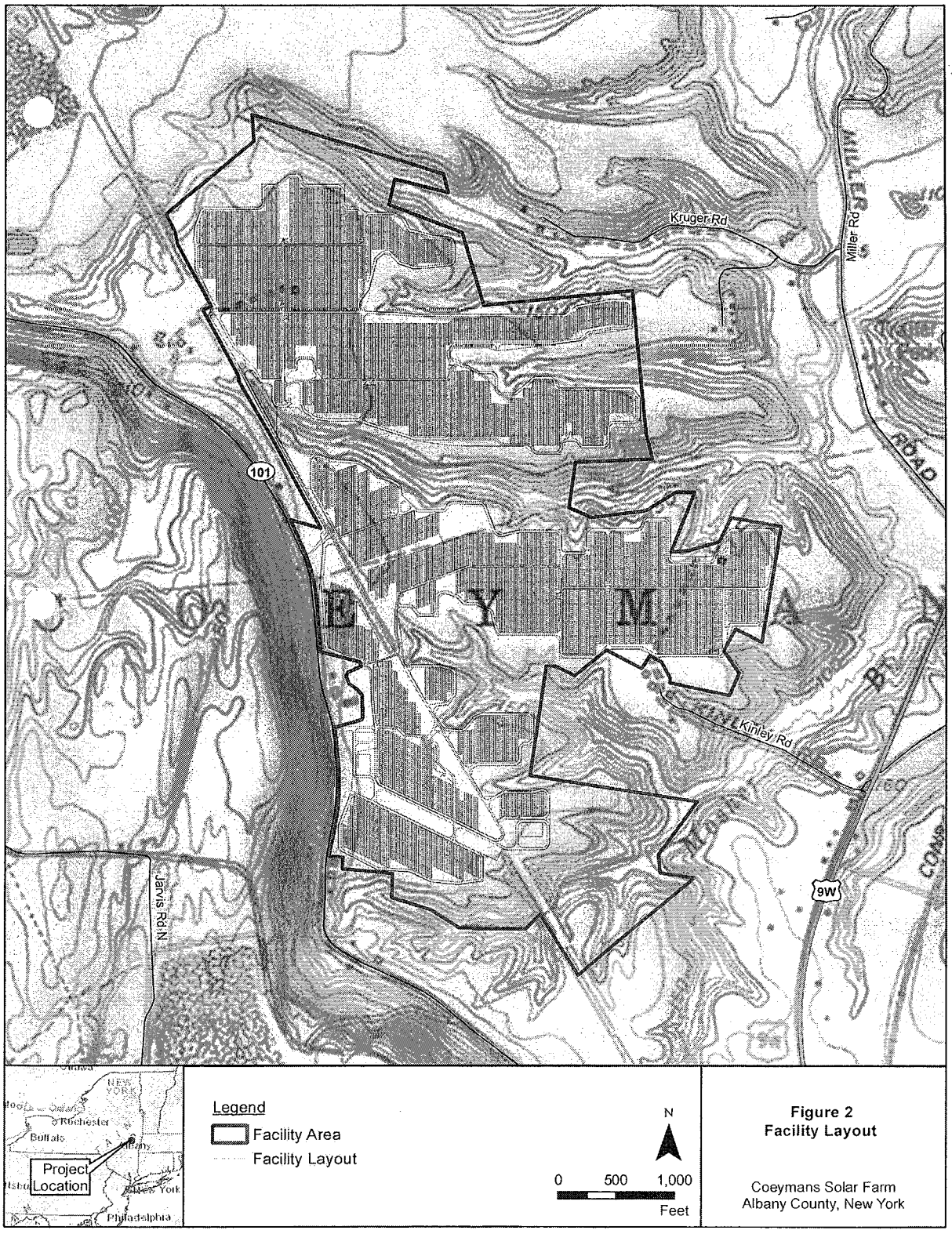


Figure 2
Facility Layout

Coeymans Solar Farm
Albany County, New York

1.2 Annual Impacts Related to Facility Operation

Once the construction phase is complete, operation and maintenance (O&M) of the Facility will continue to contribute to the New York State economy over the expected 30-year operating life of the Facility. These annual impacts are expected to occur each year the Facility is operational.

- Facility O&M is expected to support 8 total (direct, indirect, and induced) jobs in New York State and approximately $510,000 in labor income, with total economic output of approximately $943,000. In Albany County, Facility O&M would support 7 total jobs and approximately $389,000 in labor income, with total economic output of approximately $711,000.

1.3 Summary of Potential Economic Impacts

Tables 1 and 2 provide an overview of the potential economic impacts from Facility O&M expected to occur in New York State and Albany County, respectively.

Table 1. Potential Economic Impacts in New York State

Type of Effect	Employment	Labor Income ($000s)	Economic Output ($000s)
Construction			
Direct Effect	86.0	7,437	7,437
Indirect Effect	73.1	6,639	17,323
Induced Effect	55.1	3,826	10,250
Overall Total	**214.2**	**17,902**	**35,009**
O&M			
Direct Effect	2.0	116.3	116.3
Indirect Effect	3.9	264.2	478.3
Induced Effect	1.9	129.8	348.5
Overall Total	**7.8**	**510.3**	**943.1**

Note: The direct effect component consists of expenditures made specifically for the proposed Facility, such as construction labor and materials. Indirect effects, often referred to as "supply-chain" effects, are generated by the expenditures on goods and services by suppliers who provide goods and services to the construction project. Induced effects, sometimes referred to as "consumption-driven" effects are generated by the spending of households associated either directly or indirectly with the Facility.

Table 2. Potential Economic Impacts in Albany County

Type of Effect	Employment	Labor Income ($000s)	Economic Output ($000s)
Construction			
Direct Effect	57.3	4,958	4,958
Indirect Effect	17.5	1,557	3,253
Induced Effect	19.8	1,197	3,407
Overall Total	**94.6**	**7,713**	**11,618**
O&M			
Direct Effect	2.0	116.3	116.3
Indirect Effect	4.0	193.3	369.2
Induced Effect	1.3	79.1	225.3
Overall Total	**7.3**	**388.6**	**710.8**

Note: See the footnote to Table 1.

1.4 Local Operating and Infrastructure Costs

Based on the type and size of the Facility, Hecate Energy does not anticipate that Facility construction and operation will result in incremental operating or infrastructure costs for any local authorities or agencies, including school districts, municipal authorities, public service providers or local utilities. To date, coordination with these respective entities has not identified any anticipated incremental operation or infrastructure costs

2.0 STUDY METHODOLOGY

2.1 Economic Impact Analysis

The economic impact of the Facility will occur in two phases: 1) the initial construction phase; and 2) following construction, the O&M phase. This report assesses both phases using the IMPLAN model and software. Impacts are assessed separately at the local and state level, resulting in four separate analyses. Local impacts are assessed using a single county model for Albany County. State impacts are evaluated using a separate state-level model for New York State. These analyses used 2017 IMPLAN data, which is the most recent data available.

Construction and operation of the Facility will generate economic benefits in the local and state economies through direct expenditures for materials and services in the affected states, as well as new payroll income.

2.1.1 Economic Impact Model (IMPLAN)

IMPLAN is a commercially available economic modeling package widely used to assess the economic impacts of energy and many other types of projects. The IMPLAN model divides the economy into 536 sectors including government, households, farms, and various industries, and models the linkages between the various sectors. The linkages are modeled through input-output tables that account for all dollar flows between different sectors of the economy. Using national industry and county-level economic data derived from the US Bureau of Economic Analysis, US Census, and other government sources, IMPLAN models how spending in one sector of the economy is spent and re-spent in other sectors of the economy. By tracing these linkages, the model approximates the flows of initial Facility-related spending through the local economy based on the supply lines connecting the various economic sectors. These linkages vary by sector and also through regional differences in spending and employment patterns. The amount spent locally decreases with each successive transaction away from the initial expenditure due to the effects of savings, taxes, or other activities that happen outside the local economy, known as leakages.

The economic relationships modeled by IMPLAN allow the user to estimate the overall change in the economy that would result from construction and operation of a proposed project. The dollars spent on Facility construction and operation within the selected analysis area are analyzed to determine the total economic impact within that area. The direct investments in Facility construction and operation trigger successive rounds of spending that result in an overall increase in employment, labor income, and economic output in the local economy. Construction-related impacts are assessed as one-time impacts; O&M-related impacts are modeled as annual impacts.

2.1.2 Impact Types

Economic multipliers derived from the model are used to estimate total economic impacts. Total economic impacts consist of three components: direct, indirect, and induced impacts. These three components may be described as follows:

- The *direct* impact component consists of expenditures made specifically for the Facility, such as construction labor and materials. These direct impacts generate economic activity elsewhere in the local economy through the multiplier effect, as initial changes in demand "ripple" through the local economy and generate indirect and induced impacts.
- *Indirect* impacts are generated by the expenditures on goods and services by suppliers who provide goods and services to Facility construction. Indirect effects are often referred to as "supply-chain" impacts because they involve interactions among businesses.
- *Induced* impacts are generated by the spending of households associated either directly or indirectly with the Facility. Workers employed during construction, for example, will use their

income to purchase groceries and other household goods and services. Workers at businesses that supply the facility during construction or operation will do the same. Induced effects are sometimes referred to as "consumption-driven" impacts.

Spending associated with the Facility produces multiplier spending effects for other sectors of the state economy as businesses respond to supply-chain and consumption-driven demands for goods and services.

2.1.3 Impact Measures

Impacts are assessed using the following measures that are reported by the IMPLAN model:

- *Jobs* – measured as the average number of employees engaged in full- or part-time work. For this analysis, model outputs are subsequently adjusted to full-time equivalents (FTEs) using coefficients provided by IMPLAN. [2]
- *Personal income* (or labor income) – expressed as the sum of employee compensation and proprietary income.
    - Employee compensation (wages) includes workers' wages and salaries, as well as other benefits such as health, disability, and life insurance; retirement payments; and non-cash compensation.
    - Proprietary income (business income) represents the payments received by small-business owners or self-employed workers.
- *Economic output* – the value of goods and services produced, which serves as a broad measure of economic activity.

2.2 Impact Sources

2.2.1 Construction

Construction typically provides a stimulus to the local economy as project-related goods and services are purchased locally and local labor is used. The main source of construction-related impacts would directly result from the construction activity in Albany County and elsewhere in-state. Total construction costs for this analysis were developed by Hecate Energy based on industry standards, similar project experience, and consultation with contractors. The largest share of the overall construction cost consists of the purchase of the solar modules and inverters, which together accounts for more than 40 percent of the total estimated construction cost. For the purposes of this analysis, the solar modules and inverters are assumed to be purchased out-of-state and transported to the Facility Area for installation.

Installation labor costs account for approximately 13 percent of the total construction cost estimate. Based on similar project experience and consultation with contractors, Hecate Energy estimates that Facility construction would provide direct onsite employment for a total of 96 FTE jobs, with technicians accounting for more than half (55 percent) of this total (Table 3). Viewed by quarter, estimated onsite employment would range from 48 workers in the first quarter and peak with 140 onsite workers during the third quarter (Table 3; Figure 3).

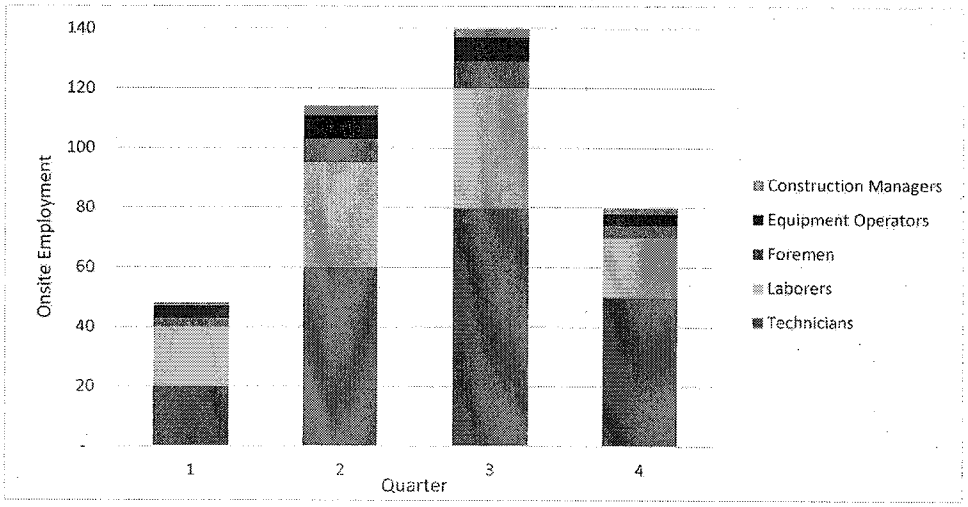
[2] One FTE job equates to one full-time job for one year or 2,080-hour units of labor. Part-time or temporary jobs constitute a fraction of a job. For example, if an engineer works just 3 months on a solar project, that would be considered one-quarter of an FTE job. FTEs are also sometimes referred to as job-years.

Table 3. Estimated Construction Workforce by Quarter

Labor Discipline	Quarter				Total FTE Employment[1]	Peak Employment
	1	2	3	4		
Technicians	20	60	80	50	53	80
Laborers	20	35	40	20	29	40
Foremen	3	8	9	4	6	9
Equipment Operators	4	8	8	4	6	8
Construction Managers	1	3	3	2	2	3
Total	**48**	**114**	**140**	**80**	**96**	**140**

Notes:
FTE = full-time equivalent
[1] One FTE job equates to one full-time job for one year or 2,080-hour units of labor, with part-time or temporary jobs constituting a fraction of a job. Numbers are rounded to the nearest FTE.

Figure 3. Estimated Construction Workforce by Quarter



Workers directly employed onsite during Facility construction include technicians, laborers, foremen, equipment operators, and construction managers. These estimates do not include workers directly employed elsewhere in Albany County or New York State providing Facility-related technical services, such as engineering design and permitting. Additional workers would also be employed to develop the interconnection facilities required to facilitate the transfer of electricity from the Facility.

Hecate Energy anticipates that the majority of the onsite construction workforce would be hired locally to the extent workers are available, with an estimated 60 percent or more of the workforce expected to already reside in Albany County. In addition, Hecate Energy anticipates that an additional 30 percent or more of the workforce would be hired from within New York State; therefore, total in-state hiring is expected to be approximately 90 percent. The shares of the workforce expected to be hired in Albany County and in-state would be equivalent to approximately 57 and 86 FTE jobs, respectively. Non-local workers would mainly be required for supervision and to supplement the local construction workforce.

Other estimated construction expenditures expected to occur locally and in-state include: structural and electrical balance of system materials; construction materials and supplies; equipment rentals; and

construction services. Expenditures related to engineering and surveying, development and licensing, interconnection, and financing costs are also expected to occur locally and in-state.

2.2.2 Operation

Once the construction phase is complete, O&M of the Facility will continue to contribute to the state economy. Hecate Energy anticipates that Facility-related O&M will directly employ the equivalent of 2 FTE workers. In addition, Facility-related O&M expenditures will generate economic benefits in the local and statewide economy. Local operations and maintenance-related expenditures will include: equipment repair and maintenance; landscaping services; vehicle-related expenditures, such as maintenance and fuel costs; and security. Land acquisition and payments to local governments will also generate local economic benefits. Facility-specific operations and maintenance costs developed by Hecate Energy were used for this analysis. Annual economic benefits will occur for the operating life of the Facility.

2.3 Study Limitations

The results presented in this report are indicative, preliminary estimates based on a certain set of assumptions and estimated model inputs. These assumptions and inputs are based on the best data and information available at this stage in the Facility development process. Direct Facility inputs, including workforce estimates and Facility-related expenditures, are preliminary estimates based on Hecate Energy's past project experience and consultation with contractors. Other key modeling inputs include the share of expenditures expected to occur in the analysis area for each model, as well as the share of workers expected to be hired locally. An Engineering, Procurement, and Construction (EPC) contractor has not yet been selected and the estimated local shares could, therefore, vary from those used in this analysis.

This analysis does not assess net jobs, rather it presents total or gross jobs that would be supported by Facility development. Economic impact estimates are gross (as opposed to net) in that they do not account for the fact that workers employed on this Facility could alternatively be employed elsewhere and may turn down other opportunities to work on the Facility. Similarly, jobs supported elsewhere in the economy (i.e., indirect and induced jobs), identified as FTEs, are not necessarily additional jobs. Secondary impacts may support workers in their existing positions, helping them retain their jobs or expand their hours.

3.0 ECONOMIC IMPACTS

3.1 Construction Phase Impacts in the State of New York

Estimated impacts from Facility construction for New York State, summarized in Table 4, are one-time impacts for the 12-month Facility construction period, developed using the IMPLAN model. Job estimates are presented in FTEs, with each identified job representing 12 months (2,080 hours) of employment. Facility construction is estimated to involve approximately 86 onsite FTE jobs that would be filled by in-state workers. Additional onsite positions, which would be filled by out-of-state workers, are not included.

Facility construction would also support employment, labor income, and economic output in other sectors of the state economy, with indirect impacts expected to support 73 jobs in New York State and induced impacts expected to support an additional 55 jobs (Table 4). Overall, Facility construction is expected to support a total of 214 jobs in New York State and approximately $17.9 million in labor income, with total economic output of approximately $35.0 million.

Table 4. Construction Phase Impacts in the State of New York

Impact Type/Measure[1]	Employment (Jobs)[2]	Labor Income ($000)[3]	Economic Output ($000)[3]
Direct Impacts	86.0	7,437	7,437
Indirect Impacts	73.1	6,639	17,323
Induced Impacts	55.1	3,826	10,250
Total Impacts	**214.2**	**17,902**	**35,009**

Notes:
[1] Estimates are for the entire 12-month construction period.
[2] Jobs are FTE for a period of one year (2,080 hours). Direct jobs include those directly employed onsite during construction. Onsite positions that may be filled by out-of-state workers are not included.
[3] Labor income and economic output are expressed in thousands of dollars in Year 2019 dollars.

3.2 Operation Phase Impacts in the State of New York

Estimated O&M phase impacts for New York State are summarized in Table 5. These estimates are annual impacts based on estimated O&M expenditures for the Facility's 30-year operational life. Hecate Energy has estimated that the equivalent of 2.0 full-time employees would be employed in-state to conduct Facility O&M, with approximately $116,000 in associated labor income.

O&M of the Facility would also support employment, labor income, and economic output in other sectors of the state economy. Indirect impacts would support and estimated 3.9 jobs, with induced impacts expected to support 1.9 jobs (Table 5). Overall, Facility O&M is expected to support the equivalent of 7.8 FTE jobs statewide and approximately $510,000 in labor income, with total economic output of approximately $943,000. These annual impacts are expected to occur each year that the Facility is operational.

Table 5. Annual Economic Impacts Associated with Facility Operation in New York State

Impact Type/Measure[1]	Employment (Jobs)[2]	Labor Income ($000)[3]	Economic Output ($000)[3]
Direct Impacts	2.0	116.3	116.3
Indirect Impacts	3.9	264.2	478.3
Induced Impacts	1.9	129.8	348.5
Total Impacts	**7.8**	**510.3**	**943.1**

Notes:
[1] Estimates are based on annual average operation-related expenditures.
[2] Jobs are full-time equivalent for a period of one year (1 FTE = 2,080 hours).
[3] Labor income and economic output are expressed in thousands of dollars in Year 2019 dollars.

3.3 Construction Phase Impacts in Albany County

Estimated construction phase impacts for Albany County are summarized in Table 6. These estimates are one-time impacts for the 12-month construction period developed using the IMPLAN model for Albany County. Facility construction, including transmission system upgrades, is expected to involve approximately 57 onsite FTE jobs that would be filled by local workers. Positions filled by workers from elsewhere in New York and out-of-state are not included in these estimates.

Construction of the Facility would also support employment, labor income, and economic output in other sectors of the local economy. Indirect impacts would support an estimated 18 jobs in Albany County with induced impacts expected to support 20 jobs (Table 6). Overall, construction of the Facility is expected to support 97 total jobs in Albany County and approximately $7.7 million in labor income, with total economic output of approximately $11.6 million.

Table 6. Construction Phase Impacts in Albany County

Impact Type/Measure[1]	Employment (Jobs)[2]	Labor Income ($000)[3]	Economic Output ($000)[3]
Direct Impacts	57.3	4,958	4,958
Indirect Impacts	17.5	1,557	3,253
Induced Impacts	19.8	1,197	3,407
Total Impacts	**94.6**	**7,713**	**11,618**

Notes:
[1] Estimates are for the entire 12-month construction period.
[2] Jobs are full-time equivalent for a period of one year (1 FTE = 2,080 hours). Direct jobs include those directly employed onsite during construction.
[3] Labor income and economic output are expressed in thousands of dollars in Year 2019 dollars.

3.4 Operation Phase Impacts in Albany County

Estimated operation phase impacts for Albany County are summarized in Table 7. These estimates are annual impacts based on estimated O&M expenditures for a 30-year period of operation. Hecate Energy has estimated that the equivalent of 2.0 full-time employees would be employed in Albany County to operate and maintain the proposed facility, with direct associated labor income of about $116,000.

Facility O&M would also support employment, labor income, and economic output in other sectors of the county economy. Indirect impacts would support an estimated 4.0 jobs, with induced impacts expected to support 1.3 jobs (Table 7). Overall, Facility O&M is expected to support the equivalent of 7.3 FTE jobs in Albany County and approximately $389,000 in labor income, with total output of approximately $711,000. These annual impacts are expected to occur each year that the Facility is operational.

Table 7. Annual Economic Impacts Associated with Facility Operation in Albany County

Impact Type/Measure[1]	Employment (Jobs)[2]	Labor Income ($000)[3]	Economic Output ($000)[3]
Direct Impacts	2.0	116.3	116.3
Indirect Impacts	4.0	193.3	369.2
Induced Impacts	1.3	79.1	225.3
Total Impacts	**7.3**	**388.6**	**710.8**

Notes:
[1] Estimates are based on annual average operation-related expenditures.
[2] Jobs are full-time equivalent (FTE) for a period of one year (1 FTE = 2,080 hours).
[3] Labor income and economic output are expressed in thousands of dollars in Year 2019 dollars.

4.0 LOCAL OPERATING AND INFRASTRUCTURE COSTS

The Facility is proposed within the Ravena-Coeymans-Selkirk School District. Construction and operation of the Facility is not expected to result in an increase in school enrollment. The majority of the construction workforce (70 percent) is expected to normally reside within daily commuting distance of the Facility Area. The number of construction workers temporarily relocating to the Facility Area for the duration of their employment is expected to peak at approximately 42 workers during the third quarter of construction. None of these workers are expected to permanently relocate to the area and very few, if any, are expected to be accompanied by family members. Facility O&M is expected to employ the equivalent of about 2 FTE jobs that would be filled by New York State residents. Hecate Energy consulted with the Ravena-Coeymans-Selkirk School District Superintendent who confirmed that the Facility is not expected lead to an increase in the school district's operating and infrastructure costs.

Based on the type and size of the Facility, Hecate Energy does not anticipate that any other incremental operating or infrastructure costs will result from construction or operation of the Facility. Hecate Energy consulted[3] with the following entities to confirm that this is the case:

- Town of Coeymans Supervisor
- Town of Coeymans Police Department
- Town of Coeymans Highway Superintendent
- Coeymans Hollow Fire Department

The Facility is not proposed to interconnect to any existing utility (i.e., water, sewer) and, therefore, these respective entities were not consulted. A response was received from the Town of Coeymans Highway Superintendent and the Ravena-Coeymans-Selkirk School District Superintendent, both of whom concluded that no incremental operating or infrastructure costs would result from the Facility. No other responses have been received to date.

[3] Hecate Energy initiated consultation by mailing letters to each identified entity on January 29, 2019. Subsequent consultation was made via telephone.

5.0 CONCLUSION

The preceding analysis estimates the economic impacts associated with construction and operation of the Facility at the local (Albany County) and state levels. Impacts were estimated for each geographic area using separate IMPLAN models. The results of this analysis indicate that construction of the Facility would provide direct employment for a substantial number of residents in Albany County and elsewhere in New York State, as well as support economic activity elsewhere in the local and state economies.

Overall, construction of the Facility is expected to support 214 total (direct, indirect, and induced) jobs in New York State and approximately $17.9 million in labor income, with total economic output of approximately $35.0 million. In Albany County, Facility construction would support an estimated 95 total jobs and approximately $7.7 million in labor income, with total economic output of approximately $11.6 million.

Operation of the Facility is expected to support 8 total (direct, indirect, and induced) jobs in the State of New York and approximately $510,000 in labor income, with total economic output of approximately $943,000. In Albany County, Facility operation would support 7 total jobs and approximately $389,000 in labor income, with total economic output of approximately $711,000. These are annual estimated impacts that would occur each year the Facility is in operation.

Based on the type and size of the Facility, Hecate Energy does not anticipate that construction and operation of the Facility will result in any incremental operating or infrastructure costs for any local authorities or agencies, including school districts, municipal authorities, public service providers or local utilities. Coordination with these respective entities has not identified any anticipated incremental operation or infrastructure costs