

SunEast Manchester Solar, LLC

Cost-Benefit Analysis

Prepared by:



Prepared for:
Ontario County IDA

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Executive Summary

The Ontario County Industrial Development Agency (the “Agency”) received an application for financial assistance from SunEast Manchester Solar, LLC (the “Applicant”) related to a proposed project located at 3169 County Road 13 in the Town of Manchester (the “Site”). The proposed project includes the development of approximately 174 acres of vacant land into a 20-megawatt utility-scale solar farm (the “Project”). The Agency requested a cost-benefit analysis from MRB Group to enumerate the economic benefits and costs of the Project on the County and the Region,¹ as part of the Agency’s deliberations.

MRB Group conducted a thorough assessment of the economic and fiscal impacts of the Project, for both one-time construction impacts and ongoing impacts of operations. The economic impacts considered in this analysis include direct and indirect changes to jobs, wages, and sales. The fiscal impacts of the Project include one-time and ongoing new tax revenue as well as the presumed costs of the financial assistance being considered by the Agency.

Using estimates provided by the Agency of the percentage of locally-sourced labor and materials to be used in the construction phase of the Project, we were able to assess the one-time economic impact.² We estimate that the construction phase of the Project will produce 80 direct, on-site construction jobs and 59 indirect jobs. Therefore, in total, the construction phase of the Project will create 139 jobs generating \$9.7 million in wages in the Region. Upon completion of construction, the Applicant will employ one full-time and one part-time worker. We estimate that the operation of the Project will produce an additional 3 indirect full-time jobs. Therefore, in total, the Project will create approximately 4.5 full-time equivalent jobs earning \$281,259 in wages.

Summary of Economic Impacts

	Direct	Indirect	Total
Construction Jobs	80	59	139
Construction Wages	\$6,657,730	\$3,079,855	\$9,737,585
Ongoing Jobs	1.5	3.0	4.5
Ongoing Wages	\$108,000	\$173,259	\$281,259

¹ The IDA defines to regions in its policies: a 6-county area including Ontario, Monroe, Livingston, Wayne, Seneca, and Yates Counties and 9-county labor region of Ontario, Monroe, Livingston, Wayne, Seneca, Yates, Steuben, Schuyler, and Chemung Counties. For ease of reference, we refer to both as simply the “Region.”

² The direct and indirect “Ongoing Jobs” and “Ongoing Wages” shown are with respect to just Ontario County.

In terms of fiscal benefits, the Project will increase tax revenues for the State, County, Town, and Phelps-Clifton Springs Central School District. The one-time sales tax benefits associated with the construction of the project are estimated to be \$104,679. The sales tax generated from the operation of the facility is estimated to be \$75,038 over a 15-year period. Under the terms of the requested PILOT, property tax revenue will increase by \$1.6 million over 15 years. Therefore, the total fiscal benefits of the Project will be \$1.8 million to all jurisdictions.

Summary of Fiscal Benefits

	State	County	Town	School	Total
Sales Tax, One-Time	\$87,638	\$17,041			\$104,679
Sales Tax, Operations*	\$44,651	\$30,387			\$75,038
Increase in Property Tax, Total**		\$335,126	\$110,562	\$1,155,573	\$1,601,262
Total Fiscal Benefits	\$132,289	\$382,554	\$110,562	\$1,155,573	\$1,780,979

*Total increase in sales tax over the term of the PILOT.

**Difference between property taxes without project and PILOT payments with project over term of PILOT.

As shown in the table below, the exemptions include \$1.4 million in foregone sales tax revenue and \$15 million in foregone property tax revenue. The value of the property tax abatement shows the difference between the hypothetical “full-value” tax revenue and the revenue to be collected under the requested PILOT. However, the Applicant has noted that without a PILOT abatement, the Project will not move forward. Therefore, this value is theoretical, rather than a true cost to the taxing jurisdictions.

Summary of Exemptions

	State	County	Town	School	Total
Cost of Sales Tax Exemption, One-Time	\$751,400	\$657,475			\$1,408,875
Value of Property Tax Abatement, Total*		\$3,139,650	\$1,035,810	\$10,826,053	\$15,001,514

*Difference between hypothetical full-value taxes and PILOT payments over term of PILOT.

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Introduction

The Ontario County Industrial Development Agency received an application for financial assistance from SunEast Manchester Solar, LLC related to a proposed project located at 3169 County Road 13 in the Town of Manchester. The proposed project includes the development of approximately 174 acres of vacant land into a 20-megawatt utility-scale solar farm. The Agency requested a cost-benefit analysis from MRB Group to enumerate the economic benefits and costs of the Project on the County and region, as part of the Agency's deliberations.

MRB Group conducted a thorough assessment of the economic and fiscal impacts of the Project, for both one-time construction impacts and ongoing impacts of operations. The economic impacts considered in this analysis include direct and indirect changes to jobs, wages, and sales in the region. The fiscal impacts of the Project include one-time and ongoing new tax revenue as well as the presumed costs of the financial assistance being considered by the Agency.

Economic Impact Analysis

The Project would have economic impacts on the County and Region in a number of ways. These include one-time impacts to jobs, earnings, and sales during the construction phase of the Project, which we estimate for the entire Region. They also include ongoing impacts related to the operations of the Project, which we estimate for the County.³

Methodology

Both one-time, construction-phase impacts and ongoing, operation-phase impacts have “direct” and “indirect” components. For the construction phase:

- Direct jobs, wages, and sales are those that occur on-site related to labor and materials used in the construction of the Project.
- Indirect jobs, wages, and sales are those caused by the direct impacts, and result from business-to-business purchases (e.g. a contractor buying a piece of equipment from a dealer) and from employees spending a portion of their wages locally.

For the operation phase:

- Direct jobs, wages, and sales are those jobs created from the operations of the Project (e.g. on-site employment of a maintenance person).
- Indirect jobs, wages, and sales are those caused by the direct impact, such as business-to-business purchases (e.g. a grocery store serving the new employees buying goods from a distributor) and from employees of such businesses spending a portion of their wages locally.

To estimate the direct and indirect impacts, MRB Group employed the Emsi⁴ economic modeling system. We used data from the Applicant, from the Agency, and from publicly-available and proprietary data sources as inputs to the Emsi modeling system. Where needed, we adjusted the Emsi model to best match the Project specifics. We then reported the results of the modeling.

³ By their nature, construction-related impacts tend to be somewhat more diffuse, which is why we report them as regional impacts.

⁴ Emsi, formerly “Economic Modeling Systems, Intl.,” uses data from the US Bureau of Labor Statistics, the US Bureau of Economic Analysis, the US Census, and other data sources to model out economic impacts.

Construction Phase

The Applicant provided estimates of the total cost of construction of the Project, which is \$31.4 million. The Agency's Uniform Tax Exemption Policy's (UTEP) requires that 80% of materials be sourced for a 6 County Region (Ontario, Monroe, Livingston, Wayne, Seneca, and Yates) Counties and that 80% of labor will be source from a 9 County region (Ontario, Monroe, Livingston, Wayne, Seneca, Yates, Steuben, Schuyler, and Chemung Counties). For the purposes of our analysis, we have therefore assumed 80% of labor and materials will be sourced within the Region, with the exception of the solar modules themselves.⁵ Therefore, in total, the construction phase of the Project will result in \$15.9 million of in-region construction spending.

In-region construction spending of \$15.9 million (direct "sales" in the table) was used as an input into the Emsi economic modeling system. According to the model, this level of spending will result in the creation of 80 direct jobs and direct earnings of approximately \$6.7 million. Indirect impacts resulting from direct spending were also modeled, with 59 new jobs, \$3.1 million in new earnings, and \$8.4 million in new sales. Therefore, the total, one-time, construction-phase impacts of the Project would be 139 jobs, \$9.7 million in wages, and \$24.3 million in sales.

Construction Spending In Finger Lakes Region

	NAICS	\$ Total	% Region	\$ Region
Materials & Equipment				
Mounting	238210	\$2,167,500	80%	\$1,734,000
Modules	237130	\$11,560,000	0%	\$0
Electrical Wire	238210	\$2,167,500	80%	\$1,734,000
Inverter	237130	\$2,890,000	80%	\$2,312,000
Labor (EPC)	237130	\$2,000,000	80%	\$1,600,000
Other EPC	237130	\$3,780,000	80%	\$3,024,000
Other Costs			80%	
Permitting	237130	\$289,000	80%	\$231,200
Other Costs	237130	\$6,589,200	80%	\$5,271,360
Total		\$31,443,200		\$15,906,560

Source: Applicant, MRB

Economic Impact of Construction Phase, One-Time

	Direct	Indirect	Total
Jobs	80	59	139
Earnings	\$6,657,730	\$3,079,855	\$9,737,585
Sales	\$15,906,560	\$8,420,211	\$24,326,771

Source: Emsi, MRB

⁵ The Agency's UTEP allows for the Applicant to request a waiver for materials that cannot be sourced locally.

Operation Phase

An important distinction between construction and operation phase impacts is the geographical level at which impacts were measured. Because the operational impact will be significantly more localized relative to the Region-level construction impacts, the economic impact of the operation phase was considered at the County level. Therefore, the projected impacts of operations shown are relative to Ontario County.

The Applicant stated that the Project would employ one full-time person at the Site for management, and one part-time employee for maintenance. The wages paid to the full-time employee have been stated as ranging between \$66,000 - \$72,000 annually. Using the midpoint of this range, we estimate the wages paid to the full- and part-time employee to be \$108,000 in total. Indirect impacts include 3 additional jobs earning \$173,259 in wages, and \$243,407 in indirect sales. In total, the operation-phase impacts of the Project are 4.5 jobs, \$281,259 in earnings, and \$921,577 in sales, annually.

Economic Impact, Operations and Maintenance of Project

	Direct	Indirect	Total
Jobs	1.5	3.0	4.5
Earnings	\$108,000	\$173,259	\$281,259
Sales	\$678,171	\$243,407	\$921,577

Source: Emsi, MRB

Fiscal Impact Analysis

The Project would also have fiscal impacts in terms of new tax revenues and the cost of tax exemptions, described below.

Assumptions

To accurately assess the fiscal impacts of the Project, the following assumptions were made:

- The future assessed value (AV) of the project is the total Project cost of \$31,443,200 multiplied by the current equalization rate of 88%.
- An annual escalation factor of 2% was applied to the current tax rates of the County, Town, and School District.
- Yearly PILOT payment distributions were calculated using the portion of each taxing jurisdiction’s tax rate relative to total tax rate paid.
- The current assessed value on the property is \$369,000 and the current taxable value (TV) is \$211,823.

Future Assessed Value

Line	Value
Current AV	\$369,000
Current TV	\$211,823
Construction Cost	\$31,443,200
Equalization Rate	88%
Future AV	\$27,670,016

Estimated Tax Rates - 2% Escalation

Year	Escalation Factor	County Tax Rate	Town General Fund Tax Rate	School Tax Rate
Current	1.0000	\$7.174208	\$2.366862	\$24.7379
1	1.0200	\$7.317692	\$2.414199	\$25.2327
2	1.0404	\$7.464046	\$2.462483	\$25.7373
3	1.0612	\$7.613327	\$2.511733	\$26.2521
4	1.0824	\$7.765593	\$2.561968	\$26.7771
5	1.1041	\$7.920905	\$2.613207	\$27.3126
6	1.1262	\$8.079323	\$2.665471	\$27.8589
7	1.1487	\$8.240910	\$2.718780	\$28.4161
8	1.1717	\$8.405728	\$2.773156	\$28.9844
9	1.1951	\$8.573843	\$2.828619	\$29.5641
10	1.2190	\$8.745320	\$2.885192	\$30.1554
11	1.2434	\$8.920226	\$2.942895	\$30.7585
12	1.2682	\$9.098630	\$3.001753	\$31.3736
13	1.2936	\$9.280603	\$3.061788	\$32.0011
14	1.3195	\$9.466215	\$3.123024	\$32.6411
15	1.3459	\$9.655539	\$3.185485	\$33.2940

Property Tax Revenue

The Applicant has requested a 15-year PILOT that would allow for the payment of \$5,000 per megawatt per year, escalated at 2% per year. The 20-megawatt facility proposed would therefore pay a total of \$100,000 in PILOT payments in the first year. Assuming an escalation factor of 2% per year, over the life of the 15-year agreement, PILOT payments would total approximately \$1,729,342.

Property Tax Revenue – County

The estimated tax revenue for Ontario County under the proposed PILOT is \$361,932 over the 15-year term. Compared to anticipated property tax revenue generated if the Project does not move forward, this represents an increase of \$335,126.

Property Tax or PILOT Revenue - County

Year	Tax Rate	Taxable Value	Taxes w/o Project	Future AV	Taxes w/o PILOT	PILOT Payment w/ Project	Increase in Revenue
1	7.3177	\$211,823	\$1,550	\$27,670,016	\$202,481	\$20,929	\$19,379
2	7.4640	\$211,823	\$1,581	\$27,670,016	\$206,530	\$21,347	\$19,766
3	7.6133	\$211,823	\$1,613	\$27,670,016	\$210,661	\$21,774	\$20,162
4	7.7656	\$211,823	\$1,645	\$27,670,016	\$214,874	\$22,210	\$20,565
5	7.9209	\$211,823	\$1,678	\$27,670,016	\$219,172	\$22,654	\$20,976
6	8.0793	\$211,823	\$1,711	\$27,670,016	\$223,555	\$23,107	\$21,396
7	8.2409	\$211,823	\$1,746	\$27,670,016	\$228,026	\$23,569	\$21,824
8	8.4057	\$211,823	\$1,781	\$27,670,016	\$232,587	\$24,041	\$22,260
9	8.5738	\$211,823	\$1,816	\$27,670,016	\$237,238	\$24,522	\$22,705
10	8.7453	\$211,823	\$1,852	\$27,670,016	\$241,983	\$25,012	\$23,160
11	8.9202	\$211,823	\$1,890	\$27,670,016	\$246,823	\$25,512	\$23,623
12	9.0986	\$211,823	\$1,927	\$27,670,016	\$251,759	\$26,022	\$24,095
13	9.2806	\$211,823	\$1,966	\$27,670,016	\$256,794	\$26,543	\$24,577
14	9.4662	\$211,823	\$2,005	\$27,670,016	\$261,930	\$27,074	\$25,069
15	9.6555	\$211,823	\$2,045	\$27,670,016	\$267,169	\$27,615	\$25,570
TOTAL			\$26,806		\$3,501,582	\$361,932	\$335,126

Property Tax Revenue – Town

The estimated tax revenue for the Town under the proposed PILOT is \$119,406 over the 15-year term. Compared to anticipated revenue generated if the Project does not move forward, this represents an increase of \$110,562.

Property Tax or PILOT Revenue - Town General Fund

Year	Tax Rate	Current AV	Taxes w/o Project	Future AV	Taxes w/o PILOT	PILOT Payment w/ Project	Increase in Revenue
1	2.4142	\$211,823	\$511.38	\$27,670,016	\$66,801	\$6,905	\$6,393
2	2.4625	\$211,823	\$521.61	\$27,670,016	\$68,137	\$7,043	\$6,521
3	2.5117	\$211,823	\$532.04	\$27,670,016	\$69,500	\$7,184	\$6,652
4	2.5620	\$211,823	\$542.68	\$27,670,016	\$70,890	\$7,327	\$6,785
5	2.6132	\$211,823	\$553.54	\$27,670,016	\$72,307	\$7,474	\$6,920
6	2.6655	\$211,823	\$564.61	\$27,670,016	\$73,754	\$7,623	\$7,059
7	2.7188	\$211,823	\$575.90	\$27,670,016	\$75,229	\$7,776	\$7,200
8	2.7732	\$211,823	\$587.42	\$27,670,016	\$76,733	\$7,931	\$7,344
9	2.8286	\$211,823	\$599.17	\$27,670,016	\$78,268	\$8,090	\$7,491
10	2.8852	\$211,823	\$611.15	\$27,670,016	\$79,833	\$8,252	\$7,641
11	2.9429	\$211,823	\$623.37	\$27,670,016	\$81,430	\$8,417	\$7,793
12	3.0018	\$211,823	\$635.84	\$27,670,016	\$83,059	\$8,585	\$7,949
13	3.0618	\$211,823	\$648.56	\$27,670,016	\$84,720	\$8,757	\$8,108
14	3.1230	\$211,823	\$661.53	\$27,670,016	\$86,414	\$8,932	\$8,270
15	3.1855	\$211,823	\$674.76	\$27,670,016	\$88,142	\$9,111	\$8,436
TOTAL			\$8,844		\$1,155,216	\$119,406	\$110,562

Property Tax Revenue – School

The estimated tax revenue for the Phelps-Clifton Springs Central School District under the proposed PILOT is \$1.25 million over the 15-year term. Compared to anticipated revenue generated if the Project does not move forward, this represents an increase of \$1.16 million.

Property Tax or PILOT Revenue - School District

Year	Tax Rate	Current AV	Taxes w/o Project	Future AV	Taxes w/o PILOT	PILOT Payment w/ Project	Increase in Revenue
1	25.2327	\$211,823	\$5,344.86	\$27,670,016	\$698,188	\$72,166	\$66,822
2	25.7373	\$211,823	\$5,451.75	\$27,670,016	\$712,152	\$73,610	\$68,158
3	26.2521	\$211,823	\$5,560.79	\$27,670,016	\$726,395	\$75,082	\$69,521
4	26.7771	\$211,823	\$5,672.01	\$27,670,016	\$740,923	\$76,584	\$70,912
5	27.3126	\$211,823	\$5,785.45	\$27,670,016	\$755,741	\$78,115	\$72,330
6	27.8589	\$211,823	\$5,901.15	\$27,670,016	\$770,856	\$79,678	\$73,776
7	28.4161	\$211,823	\$6,019.18	\$27,670,016	\$786,273	\$81,271	\$75,252
8	28.9844	\$211,823	\$6,139.56	\$27,670,016	\$801,999	\$82,897	\$76,757
9	29.5641	\$211,823	\$6,262.35	\$27,670,016	\$818,039	\$84,554	\$78,292
10	30.1554	\$211,823	\$6,387.60	\$27,670,016	\$834,399	\$86,246	\$79,858
11	30.7585	\$211,823	\$6,515.35	\$27,670,016	\$851,087	\$87,970	\$81,455
12	31.3736	\$211,823	\$6,645.66	\$27,670,016	\$868,109	\$89,730	\$83,084
13	32.0011	\$211,823	\$6,778.57	\$27,670,016	\$885,471	\$91,524	\$84,746
14	32.6411	\$211,823	\$6,914.14	\$27,670,016	\$903,181	\$93,355	\$86,441
15	33.2940	\$211,823	\$7,052.43	\$27,670,016	\$921,244	\$95,222	\$88,170
TOTAL			\$92,431		\$12,074,057	\$1,248,004	\$1,155,573

Sales Tax Revenue, Construction Phase

As our economic impact analysis states, we anticipated approximately \$9.7 million in total new earnings during the construction phase of the project. We assume 90% of this newly generated construction phase spending will be spent in New York State, and at least 20% will be spent in Ontario County. From there, we conservatively estimate that 25% of that spending amount will be subject to sales tax. Applying the County's sales tax rate of 3.5% and the State's sales tax rate of 4.0%, we conclude that the construction phase earnings will lead to approximately \$17,041 in sales tax revenue for the County, and approximately \$87,638 for the State.

County Sales Tax Revenue - Construction Phase		State Sales Tax Revenue - Construction Phase	
Line	Value	Line	Value
Total New Earnings	\$9,737,585	Total New Earnings	\$9,737,585
% Spent in County	20%	% Spent in State	90%
\$ Spent in County	\$1,947,517	\$ Spent in State	\$8,763,827
% Taxable	25%	% Taxable	25%
\$ Taxable	\$486,879	\$ Taxable	\$2,190,957
County Sales Tax Rate	3.50%	State Sales Tax Rate	4.00%
\$ County Sales Tax Revenue	\$17,041	\$ State Sales Tax Revenue	\$87,638

Source: Applicant, MRB

Source: Applicant, MRB

Sales Tax Revenue, Operation Phase

In the previous economic impact section, we estimated \$281,259 in total new earnings per year for the jobs associated with the operation phase of the Project. In this case, we assume a greater percentage of earnings will be spent in the County (70%), compared to the construction phase (20%). Using the same methodology as above, we estimate the Project will result in \$1,723 and \$2,531 in annual sales tax revenue to the County and State, respectively.

County Sales Tax Revenue - Operation Phase

Line	Value
Total New Earnings	\$281,259
% Spent in County	70%
\$ Spent in County	\$196,882
% Taxable	25%
\$ Taxable	\$49,220
County Sales Tax Rate	3.50%
\$ County Sales Tax Revenue	\$1,723

Source: MRB

State Sales Tax Revenue - Operation Phase

Line	Value
Total New Earnings	\$281,259
% Spent in State	90%
\$ Spent in State	\$253,133
% Taxable	25%
\$ Taxable	\$63,283
State Sales Tax Rate	4.00%
\$ State Sales Tax Revenue	\$2,531

Source: MRB