
WIND ENERGY INTEGRATION

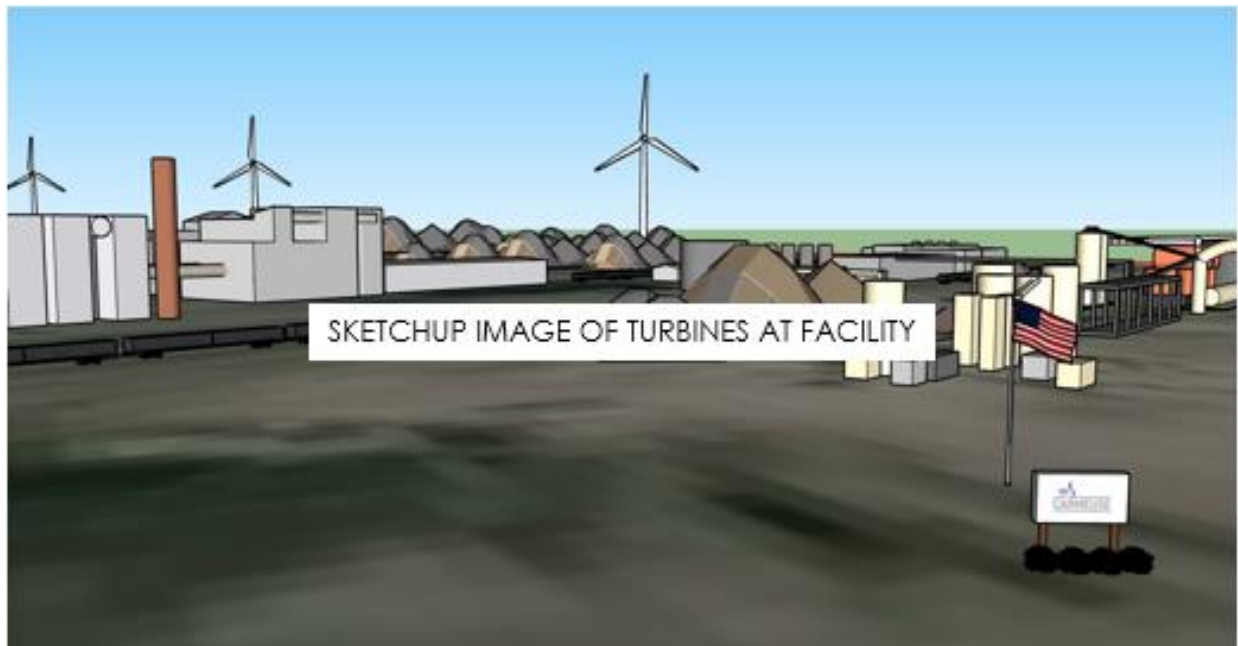
DETAILED EVALUATION PACKAGE

EXECUTIVE SUMMARY

CUSTOMER NAME

CITY, STATE

MONTH 2019



YOUR ONE ENERGY TEAM MEMBERS

The primary team members associated with this evaluation are listed below. Please do not hesitate to contact any of us with additional questions, concerns, or for clarification.

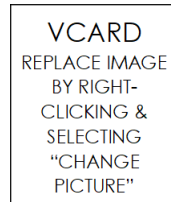
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OUR PROMISE TO OUR CUSTOMERS

- ❏ Safety and quality are always first
- ❏ Be professors, not salesmen
- ❏ Make our customers smarter than the competition's experts
- ❏ Work with manufacturers to give our customers the best products possible
- ❏ Make wind hassle-free
- ❏ Be available and be honest
- ❏ Charge a fair price and get paid for our work
- ❏ Make decisions for the long term
- ❏ Never settle for the industry standard
- ❏ Challenge everything

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[DOESN'T AUTO UPDATE; MAINTAIN CENT. GOTHIC, SIZE 9, CAPS]

OVERVIEW

One Energy completed a comprehensive Detailed Evaluation Package for the **Customer Name** facility located in **City, State**. The project consists of **number** 1.5-megawatt (MW) wind turbines, for a total of **#. #** MW. This Executive Summary reviews the findings of those preconstruction tasks performed, including project siting and performance, customer cost analysis, project pricing and financial returns, project land information, permitting and zoning, the construction plan, and site drawings.

Collectively, these studies and reports create a shovel-ready *Wind for Industry* project. Complete details of each section can be found in the attached Appendices.

All studies and analyses use the **Goldwind 87-1500 (1.5 MW, 87-meter rotor diameter, and 80-meter hub height)** wind turbine.

1. WIND RESOURCE ASSESSMENT

The Wind Resource Assessment (WRA) was completed using Method **#: Name of Method**. The datasets used include: **list datasets including MET towers, MERRA2 nodes, LiDAR deployment, and/or airport data.**

The results of the WRA, including the Gross and Net Annual Energy Production (AEP) and the Gross and Net Capacity Factor can be found in the table below.

	Gross AEP (kWh)	Gross Capacity Factor	Net AEP (kWh)	Net Capacity Factor
TURBINE CODE 1	#,###,000	##.##%	#,###,000	##.##%
TURBINE CODE 2	#,###,000	##.##%	#,###,000	##.##%
TURBINE CODE 3	#,###,000	##.##%	#,###,000	##.##%
Plant Total	##,###,000	##.##%	##,###,000	##.##%

The site wind rose and monthly wind speed distribution can be seen in the following images.



GRAPH: MONTHLY WIND SPEED DISTRIBUTION

2. PROJECT PERFORMANCE REPORT

One Energy completed a Project Performance Report (PPR) to determine the P50 energy production values and exceedance table for the project. A total of 19 Performance Factors were used. The following tables detail the results of the PPR, including Annual Energy Production and Capacity Factor Exceedance, and Monthly P50 Energy Production Values.

ANNUAL ENERGY PRODUCTION AND CAPACITY FACTOR EXCEEDANCE TABLE								
	BY TURBINE						Plant Total (kWh)	
	T-CODE 1		T-CODE 2		T-CODE 3			
P1	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%
P10	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%
P50	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%
P75	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%
P90	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%
P95	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%
P99	###,###,000 kWh	##.##%	###,###,000 kWh	##.##%	###,###,000	##.##%	###,###,000	##.##%

MONTHLY P50 ENERGY PRODUCTION VALUES					
Month	Monthly Ratios	BY TURBINE (KWH)			Plant Total (kWh)
		T-CODE 1	T-CODE 2	T-CODE 3	
January	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
February	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
March	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
April	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
May	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
June	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
July	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
August	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
September	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
October	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
November	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
December	##.##%	###,###,000	###,###,000	###,###,000	###,###,000
Annual	##.##%	###,###,000	###,###,000	###,###,000	###,###,000

The P-Table for the project can be found below.

P_VALUE	1-YR TOTAL PF	1-YR AEP
P1	#.###	#,###,000
P2	#.###	#,###,000
P3	#.###	#,###,000
P4	#.###	#,###,000
P5	#.###	#,###,000
P6	#.###	#,###,000
P7	#.###	#,###,000
P8	#.###	#,###,000
P9	#.###	#,###,000
P10	#.###	#,###,000
P11	#.###	#,###,000
P12	#.###	#,###,000
P13	#.###	#,###,000
P14	#.###	#,###,000
P15	#.###	#,###,000
P16	#.###	#,###,000
P17	#.###	#,###,000
P18	#.###	#,###,000
P19	#.###	#,###,000
P20	#.###	#,###,000
P21	#.###	#,###,000
P22	#.###	#,###,000
P23	#.###	#,###,000
P24	#.###	#,###,000
P25	#.###	#,###,000
P26	#.###	#,###,000
P27	#.###	#,###,000
P28	#.###	#,###,000
P29	#.###	#,###,000
P30	#.###	#,###,000
P31	#.###	#,###,000
P32	#.###	#,###,000
P33	#.###	#,###,000
P34	#.###	#,###,000
P35	#.###	#,###,000
P36	#.###	#,###,000
P37	#.###	#,###,000
P38	#.###	#,###,000
P39	#.###	#,###,000
P40	#.###	#,###,000
P41	#.###	#,###,000
P42	#.###	#,###,000
P43	#.###	#,###,000
P44	#.###	#,###,000
P45	#.###	#,###,000
P46	#.###	#,###,000
P47	#.###	#,###,000
P48	#.###	#,###,000
P49	#.###	#,###,000
P50	#.###	#,###,000
P51	#.###	#,###,000
P52	#.###	#,###,000
P53	#.###	#,###,000

P54	#.###	#,###,000
P55	#.###	#,###,000
P56	#.###	#,###,000
P57	#.###	#,###,000
P58	#.###	#,###,000
P59	#.###	#,###,000
P60	#.###	#,###,000
P61	#.###	#,###,000
P62	#.###	#,###,000
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P79	#.###	#,###,000
P80	#.###	#,###,000
P81	#.###	#,###,000
P82	#.###	#,###,000
P83	#.###	#,###,000
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P85	#.###	#,###,000
P86	#.###	#,###,000
P87	#.###	#,###,000
P88	#.###	#,###,000
P89	#.###	#,###,000
P90	#.###	#,###,000
P91	#.###	#,###,000
P92	#.###	#,###,000
P93	#.###	#,###,000
P94	#.###	#,###,000
P95	#.###	#,###,000
P96	#.###	#,###,000
P97	#.###	#,###,000
P98	#.###	#,###,000
P99	#.###	#,###,000

3. SITING

The turbine(s) was/were sited with consideration to existing infrastructure, such as residences, businesses, pipelines, powerlines, and microwave paths and environmental factors, such as the local flood plain and potential wetlands. Local zoning, discussed in detail in Appendix 5, was also considered. The following is the information about the site layout and turbine location(s).



Turbine	LOCATION (NAD 83)		Elevation (m)	Distance to Nearest Zone (m)
	Latitude	Longitude		
TURBINE CODE 1	##.#####° N	##.#####° W	###	###
TURBINE CODE 2	##.#####° N	##.#####° W	###	###
TURBINE CODE 3	##.#####° N	##.#####° W	###	###

One Energy identified ## Zones of Interest around the project area. These Zones were used throughout the feasibility studies to determine the project’s potential impact on the surrounding community. The closest residence to the project is ### feet from turbine WTG##. If the results of any feasibility study are abnormal, discuss.

4. CUSTOMER COST ANALYSIS

The Customer Name facility in City is serviced by Utility. Net metering is/is not available for this project. If net metering unavailable, use the following language: Instead, the project will interconnect under PURPA. The current Marginal Cost of Energy (MCOE) at this facility is \$0.0###/kWh. The project was sized to offset approximately ##% of the facility’s current annual energy consumption.

Insert information on project sizing analysis that was performed, including if the project will send energy back to the grid.

The Renewable Energy Agreement (REA) rate offered for this project is \$0.0###/kWh, flat for 20 years. [Or insert pricing structure.]

5. PERMITTING ANALYSIS

Consult Head of Regulatory for content.

6. COMMERCIAL

The REA negotiated for this project follows the standard One Energy REA, apart from list anything outside of the typical REA (e.g. facility closure clause, Customer will keep the RECs, etc.).

7. ENGINEERING AND CONSTRUCTION PLAN

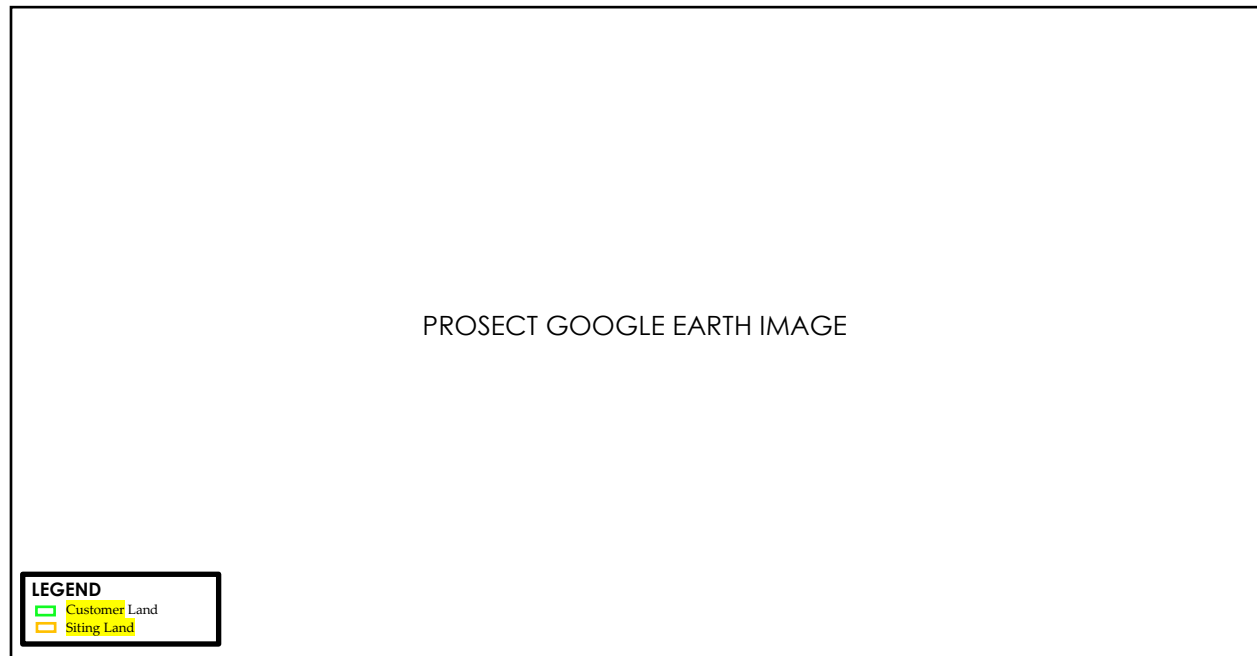
Consult Project Manager for content.

8. PROJECT DRAWINGS

Project drawings including the 1-line diagram, site layout, and conceptual renderings can be found in Appendix 8.

9. LAND

The turbines are sited on Customer-owned land/an adjacent parcel. One Energy will lease/purchase the land necessary for the project. The land owned by Customer Name is outlined in green in the figure below, while the project parcel is outlined in orange. The project parcel is approximately ### acres.



A Phase 1 Environmental Site Assessment (ESA) was completed at the parcel(s) where the turbines are sited. The third-party Phase 1 ESA concluded [insert relevant conclusions from the ESA]. If Phase 2 was performed, use the following language: Following the results of the Phase 1 ESA, Phase 2 ESA was completed on Parcel #. Insert relevant conclusions of the Phase 2.

A site survey took place on Month ##, 20##. This survey found [insert conclusions of survey].

See Appendix 9 for the title search and legal description of leased land.

10. PROJECT FINANCIAL MODEL

See Appendix 10 for the Project Name financial model.