

MISEC Choice Solar Farm

A clean, renewable energy opportunity for our Electric Choice program members

About MISEC

- Formed in 1997 by MASA, MAISA, MASB, MSBO, and the Michigan Alliance for Student Opportunity (formerly Middle Cities Education Association).
- Designed to manage the electric and natural gas procurement of Michigan's educational community.
- MISEC is the largest program of its type; managing in excess of \$100M annually of energy on behalf of Michigan's public education community.
- MISEC is a recognized entity that represents the energy interests of the educational community in Michigan.
- Managed by an Executive Committee of Superintendents, Business and Facility Manager from various districts and community colleges.

MISEC Clean Energy Goals

- The Executive Committee set out to expand the energy supply portfolio to include clean, renewable energy options.
- Michigan's Electric Customer Choice Program allows our members to purchase their energy from any generating source. To that end, the Executive Committee set the following criteria:
 - A Michigan-based solar facility, whose output would be dedicated to MISEC members.
 - A facility directly connected to the Midcontinent Independent System Operator (MISO) grid and capable of delivering energy to our members through their current distribution provider.
 - Supply would need to be cost competitive with current portfolio long-term energy costs.
 - Members could choose what percentage of solar they would include in their supply on an annual basis.
 - A facility that met the "Local Clearing Requirement," (the amount of capacity that must be located within a local area to meet federal reliability standards) as required by the Electric Choice law.

The Approach

- MISEC investigated and spoke to many interested developers, narrowing the options down to two (2), invited to make presentations to the MISEC Executive Committee.
- NorthStar Clean Energy's proposal aligned best with the MISEC energy goal and criteria:
 - Delivering a competitively priced, long-term, Michigan-based and MISEC-branded solar generating asset.
 - No capital outlay required by MISEC or participating members.
 - Support for STEM and vocational curricula
 - Support for public events highlighting MISEC's clean and renewable energy leadership.

The Project

MI

Julio Morales, Executive Director Customer Relations – NorthStar Clean Energy

Todd Mortimer, Executive Director Structured Transactions – NorthStar Clean Energy

The MISEC Choice Solar Farm

- Located on 380 acres in Genesee County, at US-475 and Carpenter Road.
- A 50-megawatt (MW) single-axis solar asset, providing ~93 million kilowatt-hours (kWh) annually of green power and renewable energy credits exclusively to Michigan Schools.
- Construction will begin in fall 2023, with commercial operation expected in June 2025.



Under Our New Partnership

- MISEC will receive its future electric supply via NorthStar Clean Energy, a registered, Michiganbased alternative energy supplier.
- MISEC will continue to implement its "layered/market-based approach" to supply management.
- Beginning June 2025, the output of MISEC Choice Solar Farm will be an additional component of this strategy.
- As NorthStar Clean Energy's supply is Michigan-based, the Electric Choice local capacity requirements are met.

MISEC - 100% FULL REQUIREMENTS - ILLUSTRATION ON FLEXIBLE SUPPLY OPTIONS

ENERGY: MISEC Annual Load (MWhs)



Looking at Rates

- MISEC currently enters into shorter-term pricing agreements. MISEC's current commodity rate ~ 7.6 cents/kWh
- Current market projections (for "brown power") indicate that if MISEC were to do a 15-year contract beginning in 2025, the commodity rate would be ~ 8.1 cents/kWh
- However, the MISEC Solar Farm pricing compares favorably to both the current rate and the 15-year "brown power" rate, therefore making clean renewable energy a competitive product for a portion of a districts' overall supply portfolio.

COMPARING PEAK POWER PRODUCTS

	(202	23-2024)	(2025-2040)		(2025-2040) Market		
<u>\$/KWh</u>		CURRENT		MISEC Solar		Projections	
Peak Energy	\$	0.067	\$	0.062	\$	0.071	
Capacity	\$	0.009	\$	0.010	\$	0.010	
Renewable Energy Credits		n/a	\$	0.003		n/a	
TOTAL COMMODITY	\$	0.076	\$	0.075	\$	0.081	

COST SAVINGS EXAMPLE

- The NorthStar Clean Energy solar price to MISEC is \$0.075/kWh – fixed for 15 years.
- This price is inclusive of Energy, Capacity, and Renewable Energy Credits.
- The chart to the right shows the projected peak price of energy in Michigan and how that compares to the solar energy rate.
- Forward peak power over the next 15 years averages \$0.071/kWh vs. the MISEC Choice Solar Farm renewable peak energy averaging \$0.062 kWh.
- Therefore, the fixed solar rate savings are estimated at ~ \$140,000, over the next 15 years, when compared to the annual estimated forward energy price increases.

<u>Planning Year</u>	<u>On Peak</u> Energy	<u>NorthStar</u> <u>On Peak</u> <u>Energy</u>	Savings	<u>25% of</u> annual usage (KWh)	Estimated Savings	
PY 2025	\$ 0.060	\$ 0.062	\$ (0.002)	950,000	\$	(1,805)
PY 2026	\$ 0.063	\$ 0.062	\$ 0.001	950,000	\$	570
PY 2027	\$ 0.063	\$ 0.062	\$ 0.001	950,000	\$	570
PY 2028	\$ 0.064	\$ 0.062	\$ 0.002	950,000	\$	1,425
PY 2029	\$ 0.065	\$ 0.062	\$ 0.003	950,000	\$	2,375
PY 2030	\$ 0.065	\$ 0.062	\$ 0.003	950,000	\$	2,850
PY 2031	\$ 0.066	\$ 0.062	\$ 0.004	950,000	\$	3,420
PY 2032	\$ 0.067	\$ 0.062	\$ 0.005	950,000	\$	4,560
PY 2033	\$ 0.067	\$ 0.062	\$ 0.005	950,000	\$	4,560
PY 2034	\$ 0.071	\$ 0.062	\$ 0.009	950,000	\$	8,930
PY 2035	\$ 0.074	\$ 0.062	\$ 0.012	950,000	\$	11,590
PY 2036	\$ 0.077	\$ 0.062	\$ 0.015	950,000	\$	14,630
PY 2037	\$ 0.080	\$ 0.062	\$ 0.018	950,000	\$	17,480
PY 2038	\$ 0.084	\$ 0.062	\$ 0.022	950,000	\$	20,995
PY 2039	\$ 0.086	\$ 0.062	\$ 0.024	950,000	\$	22,515
PY 2040	\$ 0.088	\$ 0.062	\$ 0.026	950,000	\$	24,890
Average:	\$ 0.071	\$ 0.062			\$	139,555

Next Steps/Questions

Appendix

NorthStar Clean Energy Company

• At-a-Glance

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- Corporate Structure
- Dearborn Industrial Generation

Corporate Structure





NorthStar Clean Energy Company

Fully owned subsidiary of CMS Energy

Annual revenue of over \$445 million with the financial strength of CMS Energy

Current fleet of over 2,300 MW across solar, wind, biomass, and natural gas

- Able to access energy products for our customers anywhere in the United States

• Able to fund project costs as a financially strong developer



dearborn industrial generation

A natural gas and waste gas cogeneration plant

- Located in Dearborn, Mich.
- A 770-MW Clean Corporate Citizen (C3) plant
- Reuses waste gas from an adjacent steel mill to efficiently produce electricity
- Baseload plant will provide reliable in-state energy and capacity to MISEC 24/7