Flushing Community Schools

Flushing Community Schools wanted to demonstrate leadership in energy efficiency while reducing the overall size of a recent millage request. To achieve both, the District chose to undertake an Energy Savings Performance Contract (ESPC) combined with a solar Power Purchase Agreement (PPA).



This unique approach enabled the District to maximize the impact of their efficiency efforts. The ESPC ensured minimum energy consumption by permanently eliminating over 35% of overall electrical consumption. With electric power requirements minimized, seven new solar arrays (approx. 1 MW total) were installed at no cost to the District through the PPA. The new arrays are converting clean renewable solar energy to power another 45% of district needs.

Combining the ESPC and PPA, while also planning for new Air Conditioning (A/C) to be installed in the near future, required a significant engineering effort by the District. An understanding of how net metering rules would impact actual utility costs, as well as how new A/C loads would impact electrical consumption, was critical to creating the optimal combined ESPC / PPA.

Through the combined ESPC and PPA, the District <u>reduced conventional</u> <u>power needs by 80%</u>. These energy savings were used to fund \$3.2 Million in facility improvement at zero net cost to the District. At the same time, the student learning environment was enhanced while reducing CO_2 emissions by over 1,859 tons annually.

Facility improvements include over 4000 new LED lighting fixtures, new stadium LED lighting, a new web-based building automation system, air cleaner systems, steam trap upgrades, and water efficiency improvements.



"This project is a win for both the community and the district."

Timothy Z. Stein, Superintendent



SUSTAINABLE ENERGY SEE ENGINEERING

Project Size

- ESPC Facility
 Improvements \$3.2M
- Completely paid by savings
- Includes professional support

Impact

•	Energy Cost Savings	\$ 218,298/Yr.
•	Solar Savings (addl.)	\$ 40,000/yr.
•	Operational Savings	\$ 11,978/yr.
•	Rebates	\$ 216,000

Energy Savings

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Electric (Efficiency)	924,590	KWh/Yr.
Solar	959	KW
	1,159,510	KWh/Yr.
Natural Gas	1,436	MMBTU/Yr.
Water/Sewer.	1,174	KGals/Yr.
CO2 Reduction	1,859	Tons./yr.

Flushing Community Schools
Annual District Electric Consumption
KWH/Yr





