

## Industrial Solar Consulting reduced irrigation pumping electric utility charges to near zero with LightEdison.

**LightEdison provided a scalable, design-build solar plus energy storage management solution to reduce demand exposure caused by irrigation.**

### Challenge

An Arizona landowner was facing enormous electric utility bills to provide necessary irrigation pumping. The landowner required a solution to decrease the ever-increasing electricity tariffs and usage demand charges.

### Solution

A year-long feasibility study was conducted to ensure optimal engineering and design performance. LightEdison installed 28 kilowatts of Canadian Solar 350 watt solar modules, a SolarEdge 30 kilowatt 3-phase inverter including P700 optimizers. The storage solution included a 130 kilowatt hour NMC battery bank to allow for peak demand shaving. LightEdison's solution also included swapping existing pumping to variable frequency drives to further reduce demand spikes and control utility bill exposure. The implementation method was designed to provide nearly 100% of the needed demand loading and usage generation for the pumping system.

### Results

LightEdison's solution is expected to reduce the customer utility cost from the irrigation system to near zero by providing demand coverage and savings via the storage system, and reduce the kilowatt hour usage to near zero via the solar PV generation system.



The design-build LightEdison implemented is expected to provide a low maintenance and easy to operate system over the next 10-15 years, while also creating a replicable and scalable model that the client can use to expand in the future. Brilliance delivered!

### Testimonial

*"Industrial Solar Consulting (ISC) has had a stellar relationship with LightEdison Director of Construction Shawn Stutzman for over 3 years now. There isn't a solar installer ISC would prefer working with more. Shawn and the LightEdison team provided a first-class electrical installation, which met the high standards we set forth as an organization. Our sites are often unique and unconventional, and LightEdison has been up to the challenge time and time again."*

– Fernando Vigil, Owner Industrial Solar Consulting

