Solar Project Update

April 9, 2021

Email from Shane Gibson – Project Manager:

Good Morning!

Although, not much has shown for progress on site, there's been much happening behind the scenes.

Mark met with the Buffalo Ridge from Marshall about our cement source and Flatrate, a cement pumping company a few weeks ago. It was concluded it was too soft, too far, and too steep to access with their equipment. They encourage the use of cement 1/2 yard buggies to deliver the cement. We've since purchased 1.5 yard cement buckets to put on track skid-steer loaders. Everyone is standing ready to get this done as soon as it's possible.

Just last Tuesday we met with our Master Electricians and crew to make a plan of attack, as soon as it dries we can get started, trenching, horizontal boring to place conduits, install inverters and panels then get started pulling wire.

Since, we are putting a larger load of panels than we have in the past on Dual-Axis Trackers we are investing and just finishing up a second Finite Element Analysis(FEA) done by Applied Engineering on our existing design and verifying if there are changes needed for the larger array. They are verifying the design to a wind load of 115mph which meets industry standard and code requires. We have a large manufacturer who has CNC plasma cut and formed all of our parts in the past, along with our shop we will have them weld all the assemblies. From there it is a two day process to have them galvanized in Winstead at AZZ Galvanizing and delivered to the site.

Since we said we will provide Dual-Axis Trackers at no additional cost. We have all the hydraulic cylinders, pumps etc on hand and the final controller is being completed which is pretty exciting, one of the trackers will have a Verizon Cell chip on a M2M Verizon plan which we've had so it will be connected to the Internet. We will get a notice of any faults so we can get it corrected in short order. The other 9 will be connected via a mesh-network to communicate with the master which has the M2M(Machine to Machine) Internet connection.

Keep in mind that, if there is ever a fault with the dual-axis tracker system it is still producing power just not at the 40% increase in energy production. This should over produce energy, the school should see payments for the excess energy.

Over the course of the winter we created the tools, trailers, jibs and process to pre-assemble and install the PV panels in groups of 12 on their 40' long purlins. We can stack all of them for one on tracker on two trailers towed behind pickups to deliver to the site and set in place with our Rotating-Telehandler/Crane. I'm not sure if Dave or I mentioned but the PV Panels we purchased last year for this project are upgrade 435 watt Bi-Facial which can pickup extra energy from it's backside.

Lakeview School is top on our list to get done. I remember your board commented that they consider themselves progressive, I'm here to tell you, "this will be cutting edge"

If you have other questions to hesitate to ask.

Thank You so much for your patience and confidence in us!

Shane