



The Vanguard Energy/Sunlight General Engineering, Procurement and Construction contract was executed on 21 May 2015. The current status of progress is as follows:

### **Alpine Elementary School**

Engineering: The initial EPC concept design for this site was 278.4 kW roof mount. A full structural analysis of the roof was completed and report was issued on 6/15/2015 by MPP Engineers. The structural report identified several areas where solar could be installed with a typical roof reserve capacity of 7PSF for solar. A large portion of the array (108.17 kW) was eliminated due to structural deficiencies. Ultimately, this site was removed from the scope of work and Hardyston Elementary was added as a replacement site.

### **Hardyston Elementary School**

Engineering: The initial EPC contract did not include this site. Hardyston Elementary School was selected as a replacement site at Vanguard's initial meeting with the Hardyston BoE. On 8/27/2015 the initial concept drawing was issued showing a 191.4 kW ground mount system. After conducting site surveys, final electrical and site civil drawings were issued on 11/11/15 and 10/30/15, respectively for a 186.76 kW ground mount.

Permitting and Land Use: The capital improvement review was heard by the planning board on December 21, 2015. Franklin planning board notified the construction department that permits could be accepted. Construction permits were submitted on 12/30/2015. Sussex County Soil Conservation District issued its certification on 12/9/2015.

Interconnection Application: Submitted to James Sekelsky on 12/22/2015. James returned the signed application to Vanguard on 1/7/2015 which was then submitted to JCP&L for review and approval.

Procurement: Racking material is on order. Pull tests are to be conducted on site on 1/18/2015. Inverters are being stored at the supplier's warehouse. Data monitoring is dependent on RFI.

Next Steps: Vanguard needs clarification on the data monitoring RFI so that a purchase order can be finalized. Hardyston Elementary School is to be formally added to the EPC via an amendment to the original EPC contract.

### **Hardyston Middle School**

Engineering: The initial EPC concept design for this site was 706.44 kW ground mount. When Alpine Elementary school was eliminated and while there were uncertainties with Sparta Board of Education, the design was changed several times to add more capacity. Once Sparta rejoined the project on a scaled back basis, the system was redesigned again. On 10/23/15 and 10/30/15 the electrical and site civil plans were completed, respectively. The system is currently an 870.59 kW ground mount system.

Permitting and Land Use: The capital improvement review was heard by the planning board on November 19, 2015. Construction permits were submitted on 12/30/2015. Sussex County Soil Conservation District issued its certification on 12/9/2015.

Interconnection Application: Submitted to James Sekelsky on 12/22/2015. Vanguard is still waiting for the signed application.

Procurement: Racking material is on order. Pull tests are to be conducted on site on 1/18/2015. Inverters are being stored at the supplier's warehouse. Data monitoring is dependent on RFI.



Next Steps: Vanguard needs clarification on the data monitoring RFI so that a purchase order can be finalized. James Sekelsky is to return signed interconnection application.

### **Sparta Middle School**

Engineering: The initial EPC concept design for this site was 800.94 kW roof and ground mount. Shortly after execution of the EPC contract, the Sparta Board of Education debated its participation in the project and several subsequent meetings occurred. During one such meeting Vanguard was informed that the roof would not be suitable for solar as Sparta usually removes snow from the roof with a snow blower. On July 21, 2015 Philip Crabb notified Sparta's Board of Education President Karen Scott of Sparta's obligations under the executed site access agreement. On 8/4/2015 the site was redesigned to a 484.11 kW ground mount only. On 10/20/15 and 10/30/15 the electrical and site civil plans were completed, respectively. The system is currently a 484.11 kW ground mount system.

Permitting and Land Use: The capital improvement review was heard by the planning board on December 16, 2015. The planning board must adopt a resolution before the construction department will accept the permits. Sussex County Soil Conservation District issued its certification on 12/9/2015.

Interconnection Application: Submitted to Barbara Decker on 10/1/2015. The application is currently being reviewed by Sparta BOE's attorney. Vanguard is still waiting for the signed application.

Procurement: Racking material is on order. Pull tests are to be conducted on site on 1/19/2015. Inverters are being stored at the supplier's warehouse. Data monitoring is dependent on RFI.

Next Steps: Vanguard needs clarification on the data monitoring RFI so that a purchase order can be finalized. Barbara Decker is to return signed interconnection application.

### **Sparta High School**

Engineering: The initial EPC concept design for this site was 586.24 kW roof mount. However, as stated above, throughout the summer of 2015, Sparta Board of Education debated its participation in the program but after the 7/21/2015 letter from Philip Crabb to Karen Scott and a meeting with Vanguard, Sussex County, and Sparta BOE on 8/3/15, Sparta agreed to participate in the project and another round of electrical/system design began. On 10/19/2015 the electrical plans were completed. The system is currently a 558.46 kW roof mount system.

Permitting and Land Use: The capital improvement review was heard by the planning board on December 16, 2015. The planning board must adopt a resolution before the construction department will accept the permits.

Interconnection Application: Submitted to Barbara Decker on 10/1/2015. The application is currently being reviewed by Sparta BOE's attorney. Vanguard is still waiting for the signed application.

Procurement: Racking material is being stored in Vanguard's warehouse. Inverters are being stored at the supplier's warehouse. Data monitoring is dependent on RFI.

Construction: On 11/2/2015 Vanguard went to Sparta High School for a pre-construction meeting with Sparta and the county. Upon walking the roof, many significant roof blisters were identified. Vanguard immediately contacted the roof warranty provider, Tremco to find some resolution. As the roof is only five years old, it is Vanguard's position that the existing blisters should be covered under the warranty. Tremco explained that because the roof was installed during the winter, against their recommendations, that the blisters would not be



repaired under the warranty. Vanguard hired Tremco to perform a solar pre-inspection to determine the cost of the required repairs. The inspection took place on 12/18/2015 and while onsite Tremco fixed several existing leaks. Vanguard has and will continue to follow up with Tremco for the official report. All parties agreed that the installation of a solar array on top of the blistered roof could exacerbate the existing roof deficiencies.

On 12/10/2015 Vanguard notified the Sparta BoE and the County Administrations that given the facts and circumstances of the situation here, Vanguard cannot be expected to be responsible for repairing an incorrectly installed roofing system simply because it installed a ballasted solar array on it. In order for the Sparta High School project to move forward, either the existing blisters must be repaired by others and the warranty re-affirmed by Tremco or Vanguard must be indemnified against the cost to repair in the future any leaks created during or after construction. If these are ultimately decided not to be viable options, the identification of a replacement roof site is to be undertaken by the County, per the terms of the EPC. During a freeholder meeting on 12/4/15 with Vanguard, Freeholder Jonathan Rose suggested going public to find additional sites to replace the lost capacity at Sparta High School. Vanguard agrees with that recommendation and also believes that is the best option to find boards of education that would like to participate in the project.

Next Steps: Vanguard needs a written indemnity for any future roof leaks that will occur or a replacement roof site is to be determined. Vanguard needs clarification on the data monitoring RFI so that a purchase order can be finalized. Barbara Decker is to return signed interconnection application.

### **Sussex County Tech School**

Engineering: The initial EPC concept design for this site was 632.7 kW canopy and ground mount. When Alpine Elementary school was eliminated and while there were uncertainties with Sparta Board of Education, the design was changed several times to add more capacity. Many different arrays were investigated including several roofs and ground mount areas. Once Sparta rejoined the project, the system was redesigned again. On 11/4/15 and 10/30/15 the electrical and site civil plans were completed, respectively. The system is currently a 902.99 kW ground mount and roof system.

Permitting and Land Use: The capital improvement review was heard by the planning board on December 16, 2015. The planning board must adopt a resolution before the construction department will accept the permits. Sussex County Soil Conservation District issued its certification on 12/9/2015.

Interconnection Application: Submitted to Augustus Modla on 12/22/2015. Vanguard is still waiting for the signed application.

Procurement: Roof racking material is being stored in Vanguard's warehouse. Ground mount racking material is on order. Pull tests are to be conducted on site on 1/19/2015. Inverters are being stored at the supplier's warehouse. Data monitoring is dependent on RFI.

Next Steps: Vanguard needs clarification on the data monitoring RFI so that a purchase order can be finalized. Gus Modla is to return signed interconnection application.



### **Kittatinny High School**

Engineering: The initial EPC concept design for this site was 397.65 kW roof mount and has remained a 397.65 kW roof mount system.

Permitting and Land Use: Construction permits were received from the township on 9/9/2015.

Interconnection Application: Submitted to Kathleen Kane on 9/11/2015. The application is currently being reviewed by Kittatinny BOE's attorney and JCP&L attorney. Vanguard is still waiting for the signed application. Construction can not begin until the interconnection agreement is approved.

Procurement: Racking material is being stored in Vanguard's warehouse. Inverters are being stored at the supplier's warehouse. Data monitoring is dependent on RFI.

Next Steps: Vanguard needs clarification on the data monitoring RFI so that a purchase order can be finalized. Kathleen Kane is to return signed interconnection application.