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October 28, 2020

To Whom It May Concern:

On February 15, 2018, in case number 17-1152-EL-BGN, the Ohio Power Siting Board (OPSB) issued an Opinion and Order, granting a Certificate to Hillcrest Solar I, LLC (Hillcrest) for the Hillcrest Solar Farm Project, stating that the stipulation filed in the case be approved and adopted. In its application, Hillcrest proposed to install underground collection lines using horizontal directional drilling (HDD) to cross certain surface water resources to minimize impacts. HDD is typically preferred to open-cut trenching techniques for installation of linear facilities when crossing surface water resources as impacts can be avoided in most cases. However, the HDD process includes the risk of a frac-out. A frac-out occurs when the drilling lubricant, typically water or a non-toxic, fine clay bentonite slurry, is forced through cracks in bedrock and/or surface soils. Hillcrest included in its application a frac-out contingency plan detailing prevention and response to a frac-out. The plan specifically outlined site supervisor responsibilities, containment equipment, training for site personnel, and procedures in the event of a frac-out. Frac-out procedures include drilling pressure and surface area monitoring, vacuum truck availability, field response, and closeout/remediation. By submitting this plan as part of the approved application, Hillcrest's certificate requires it to adhere to the terms of this plan. This requirement is further established through condition 1 of the certificate. Condition 1 states the following:

The facility shall be installed at the Applicant's proposed site as presented in the application and as modified and/or clarified by supplemental filings, replies to data requests, and the recommendations in the Staff Report of Investigation.

Hillcrest began construction of its facility in January 2020 and construction is currently ongoing. During a routine National Pollutant Discharge Elimination System inspection by the Environmental Monitor, Cardno, on September 24, 2020, a series of frac-outs were observed to have occurred during HDD operations to install underground collection lines. Staff was notified of this incident via email on September 25, 2020.

This notification informed Staff that frac-out materials consisting of water and subsoil sediments had reached the surface through fissures in the soil. The frac-outs occurred in nine separate locations and ranged in size from approximately 30 to 350 square feet. The frac-out material did not contain hazardous substances. Visually, the frac-out material appeared as light gray colored puddles of fine clay soils. Upon discovery of the frac-outs, HDD work was stopped in the area and erosion and additional sediment controls were installed to halt further discharge of sediment. Although frac-out release deposits contain only fresh water and native soil, these deposits have the potential to harm the environment through direct burial of flora and fauna, as well as introduction of sediment into nearby surface waters, which can adversely affect water quality and instream habitat.

No surface water resources were impacted by this incident. The frac-out material was observed to have entered a non-jurisdictional upland conveyance channel which drains into a perennial stream named Sterling Run. Within the conveyance channel, the frac-out material accumulated four to six

inches deep within the three to four-foot wide bed. Frac-out material discharge to Sterling Run was minimized by containment measures including straw bales and silt fencing. On October 1, 2020, Hillcrest deployed a vacuum truck to the site and removed the sediments from the conveyance channel.

Frac-outs were also observed within an archaeologically sensitive site documented in the cultural resource studies which Hillcrest conducted as part of the certificate (site 33-BR-208). Hillcrest's consultant, Environmental Design and Research (EDR), assigned a qualified archaeologist to inspect and assess potential impacts to the site. On September 30, 2020, a site inspection took place to document the impacts of the frac-out. During the site assessment, it was documented that there were three frac-out areas observed within the site that covered 32 square feet or less in each area and one frac-out area adjacent to the site. The depth of frac-out material did not exceed four inches and no artifacts or other cultural material was observed. EDR recommended that the four frac-out areas within and adjacent to site 33BR0208 remain undisturbed as their removal by hand or mechanical means may adversely impact the site. This information was documented in a memorandum which was sent to Ohio Historic Preservation Office (OHPO) on October 8, 2020. On October 19, OHPO submitted a letter to Hillcrest, in which OHPO concurred with EDR and requested the Ohio Archaeological Inventory form for site 33BR0208 be updated to reflect this deposit of drilling material and a map be included so this information can be readily available, should this site ever be investigated in the future.

Staff finds Hillcrest's response to the frac-out and planned actions for future HDD operations to be appropriate. However, Staff does note that Hillcrest failed to follow the procedures detailed in its frac-out plan submitted with its application. (See Application Exhibit H, Appendix F.) This includes but is not limited to the procedures which pertain to sufficient monitoring and timely vacuum truck deployment and cleanup. Following its failure to follow the specific requirements of its procedure though, Hillcrest filed a technical memorandum on October 19, 2020, which included recommendations to help minimize the risk of further frac-outs, bolster the original frac-out plan, and includes additional measures to help protect surface water resources in the even of further frac-outs. Therefore, although its initial response to the frac-out failed to meet the all the terms of the frac-out plan, the subsequent response and planned actions for future HDD operations are appropriate in Staff's opinion.

Hillcrest intends to resume HDD operations in the near future. Prior to restarting HDD operations, Hillcrest plans to review its contractor's HDD alignment submission for compliance with recommendations from EDR, Cardno and affiliated agencies, and submit alignment to OHPO and OPSB for review. Notice of Resumption will be issued and will include the realignment design, date of resumption, and mitigative measures that will be implemented to contain any potential frac-out release. There will be a five day commentary period for agencies to give any additional advice. Staff has no objection to the Applicant's current plans.

Sincerely,

A handwritten signature in black ink, appearing to read "Theresa White". The signature is fluid and cursive, with the first name "Theresa" being more prominent than the last name "White".

Theresa White  
Executive Director  
Ohio Power Siting Board

**This foregoing document was electronically filed with the Public Utilities**

**Commission of Ohio Docketing Information System on**

**10/28/2020 11:37:04 AM**

**in**

**Case No(s). 17-1152-EL-BGN**

Summary: Correspondence regarding frac-out response electronically filed by Mr. Matt Butler on behalf of Staff of OPSB