

Birch Solar 1, LLC
Case No. 20-1605-EL-BGN

Exhibit V
Visual Impact Mitigation and Lighting Plan

February 11, 2021

Birch Solar Project
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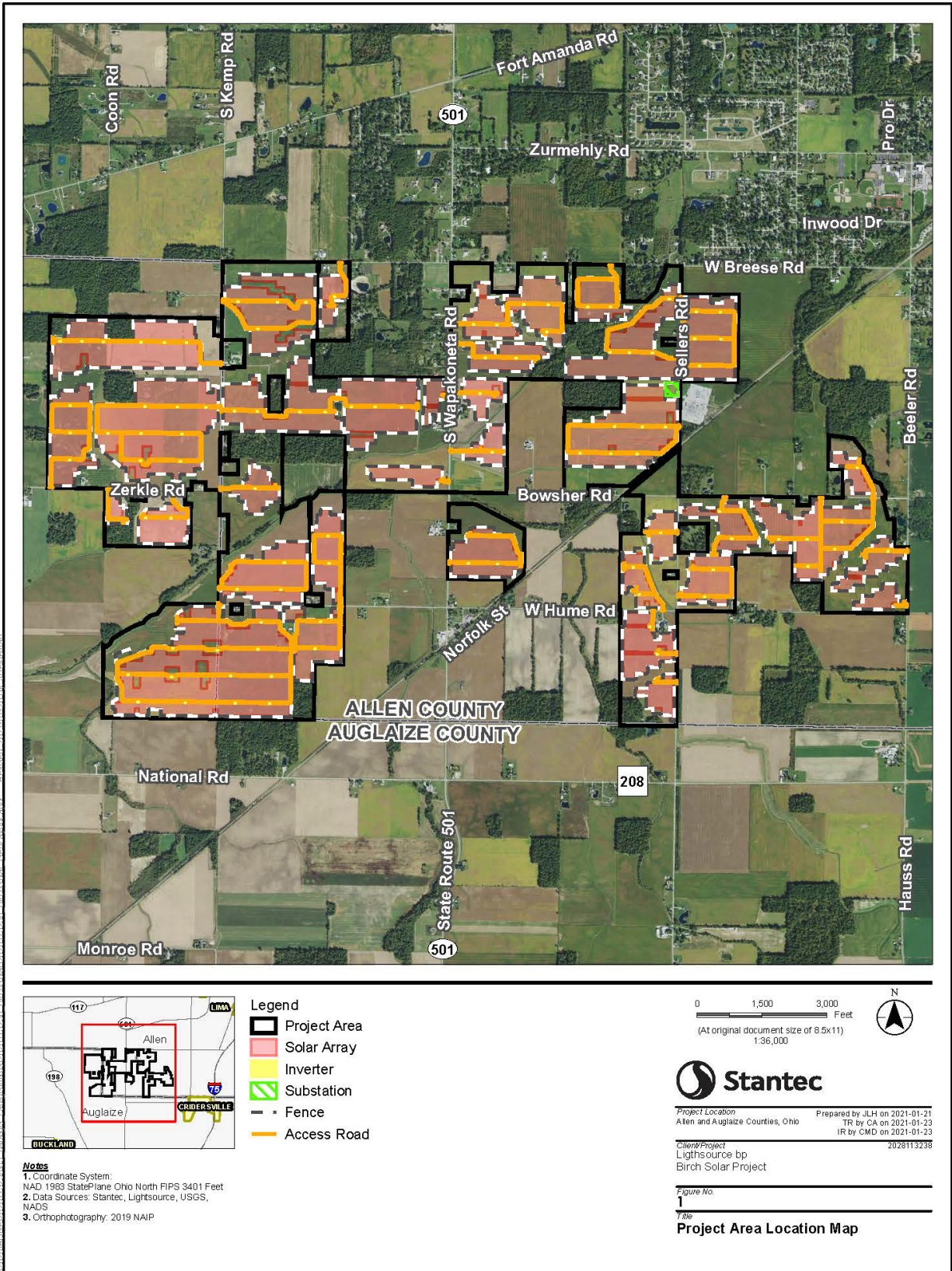
Birch Solar, LLC (Birch Solar) has actively worked throughout the development process to incorporate feedback from landowners and the community to proactively develop siting and mitigation measures to address viewshed concerns resulting from the Birch Solar Project, located in Allen and Auglaize Counties, Ohio (Project). The steps taken by Birch Solar are contained within this Visual Impact Mitigation and Lighting Plan (Plan). The current Project Area encompasses approximately 2,345 acres of private land (see Figure 1). Based on the current Project design, the Facility, which is composed of all components and infrastructure necessary for solar energy generation, will occupy approximately 1,410 acres of the Project Area.

Siting Measures to Avoid Impacts

The first step taken by Birch Solar to mitigate the visual impact of the Project was through the Project siting effort. The initial boundary of the Project included land north of Breese Road, west of Bowsher Road, and south of National Road. The Project boundary depicted during initial public meetings reflected this initial larger boundary, however based on public feedback and ongoing conversations with landowners, Birch Solar adjusted the Project boundary to reflect a smaller and more condensed Project site design. This new Project Area, represented within this Plan removed parcels north of Breese Road and includes a 300-foot setback from Breese Road, reducing proximity to homes and also limiting the boundary to the area east of Bowsher Road and north of National Road. By minimizing the size of the Project Area and increasing setbacks from homes and heavily traveled public roadways, like Breese Road, views of the Project by landowners and the public will be minimized. Further, because of the setbacks from Breese Road, the landowners can continue to farm that land, further reducing views of the Project during the growing season when crops are present. To visualize this mitigation effort, Photosimulation 1 is a photo taken from W. Breese Road between Sellers and Wapakoneta Road that depicts the setback, vegetative screening, and potential location for landowners to continue to farm the area in between the Project and the road.

Project Design to Minimize Impacts

Following the effort to minimize the visual impact through siting of the Project, Birch Solar incorporated community and landowner feedback to identify ways to better integrate the Facility into the landscape. As a result of this effort, the Project design includes cedar post farm fencing around the external facing areas of the Project rather than the originally proposed chain link fencing. This farm fencing will better blend into the existing agricultural landscape as shown in Photosimulation 2. The fence location in the photosimulation is approximate and the actual location will be determined through coordination with the community.



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Photosimulation 1. Simulated view of Project with vegetative screening implemented along W. Breese Road between Sellers and Wapakoneta Roads with 300-foot setback and agricultural land buffer.



Photosimulation 2. Simulated view of Project with approximate location of cedar post farm fence implemented along W. Breese Road between Wapakoneta Road and S. Kemp Rd.



Visual Impact Mitigation

In addition to incorporation of cedar post and farm fencing to help minimize the visual impact of the Project, Birch Solar proposes to implement vegetative screening in strategic locations along the perimeter of the Project to partially screen the Project in views from the nearby residences and roadways. Birch Solar proposes to plant arborvitae trees (*Thuja spp.*) or a similar evergreen tree species to provide screening of the Project from roadways and residences. The trees will be 6 feet tall at the time of planting and are anticipated to grow to a full height of approximately 8 feet. The trees will be spaced 6 feet on center. A visual of what the plantings could look like, as modeled along W. Hume Road, is provided in Photosimulations 3.

Photosimulation 3. Simulated view of the vegetative screening at full height and cedar post farm fencing at a viewpoint along W. Hume Road near the southeastern edge of the Project



The final step in the visual impact mitigation process, after the Project Area and Facility layout were refined, Birch Solar completed an analysis of all homes within 500 feet of the Facility and developed an Adjacent Landowner Financial Benefit Package. The Neighborhood Financial Benefit Package provides compensation ranging from \$10,000 to \$50,000 depending on the proximity to the Project. Birch Solar is currently in the process of presenting those adjacent landowner packages and will work with individual landowners to execute the agreements and incorporate any additional mitigation measures that might be mutually agreeable.

Lighting plan

To further minimize the potential for construction or operation of the Project to affect nearby residents, Birch Solar proposes to adopt the following lighting practices.

During construction of the Project, working hours will be limited to between 7 a.m. and 7 p.m. or until dusk when sunset is later. Because work will be done during daylight hours, there is little need for supplemental lighting to pose light pollution issues for nearby residences. However, during dawn and dusk additional lighting may be needed. In those instances, portable lighting will be utilized and limited to the active work areas. If possible, the portable lighting will be pointed away from roads and residences and will be pointed downward to minimize impacts. Lighting may be necessary for security surrounding the temporary construction trailer, as well as at staging areas and laydown yards. For those locations floodlights will be utilized. As possible, the lights will be pointed downward and away from nearby residences or roadways.

The need for lighting during operation of the Project is limited as most maintenance activities will occur during daylight hours and will not need supplemental lighting. The Project substation will require lighting for safety and security, as well as entrance gates and the inverter locations. The final locations of these features and the corresponding detail on the lighting will be determined as part of the final Facility layout. Around the site entrances and at each inverter, it is anticipated that the lighting will be pole-mounted and down lit with motion-activated sensors as well as switches. Lighting at the substation will be developed in compliance with applicable federal and state requirements for substations and will be on throughout the nighttime hours. The installed lights will be downlit to reduce the impact on nearby residences and drivers on the adjacent roadway.

Complaints related Project lighting during construction or operation can be reported via the complaint resolution plan and Birch Solar will work with the individual reporting the issue to resolve the problem, if possible.

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Summary: Application - 29 of 31 (Exhibit V - Visual Impact Mitigation and Lighting Plan)
electronically filed by Christine M.T. Pirik on behalf of Birch Solar 1, LLC