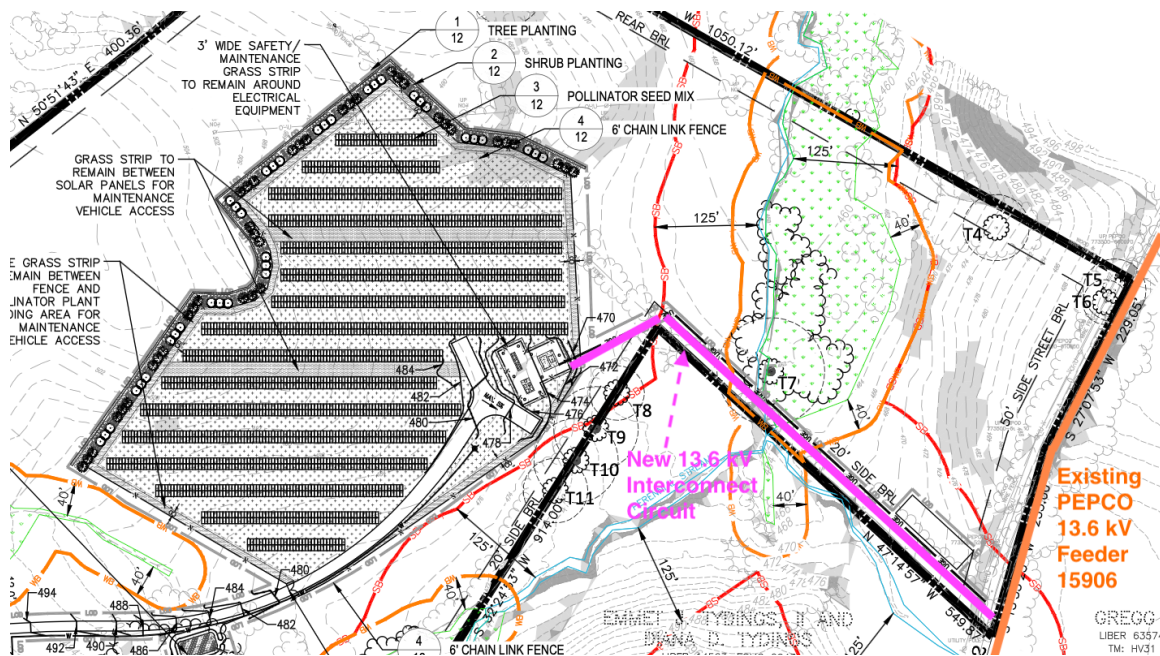


Description of Electrical Interconnect Facilities and Options

Free Rein Solar Farm LLC (“FR Solar”) is the developer and owner of a 1.46 MW ground-mounted solar photovoltaic system (the “Solar Project”) planned to be located on an interior portion of the property operated by Free Rein Farm, LLC (the “Farm”) in Montgomery County, MD. FR Solar has submitted a Conditional Use application to the Montgomery County Office of Zoning and Administrative Hearings (OZAH) along with other permitting documentation to develop the Solar Project. The project has received approval from the Maryland Public Service Commission and PEPCO to participate in Maryland’s Community Solar Electric Generating System (“CSEGS”) Pilot Program. When planned construction is complete in 2023, the project will generate clean renewable electricity that will be delivered into the PEPCO local electric distribution system. The power generated will serve the electric needs of the Farm and also be made available for sale to subscribers under a Community Solar model, which gives people access to solar power without needing to install panels on their rooftops. Importantly, FR Solar has committed to dedicating a substantial portion of the project’s output to serve the low- and moderate-income community in the region.

The Solar Project will be interconnected with the existing local PEPCO distribution network. PEPCO has studied the electrical impacts of the Solar Project and approved the interconnection of 1 MWac of power generating capacity on Feeder 15906—an existing three-phase 13.6 kV circuit mounted on wood poles that run along the west side of Zion Road adjacent to the Farm property (see Figure 1).

Figure 1. Location of New Interconnect and Existing PEPCO Feeder 15906



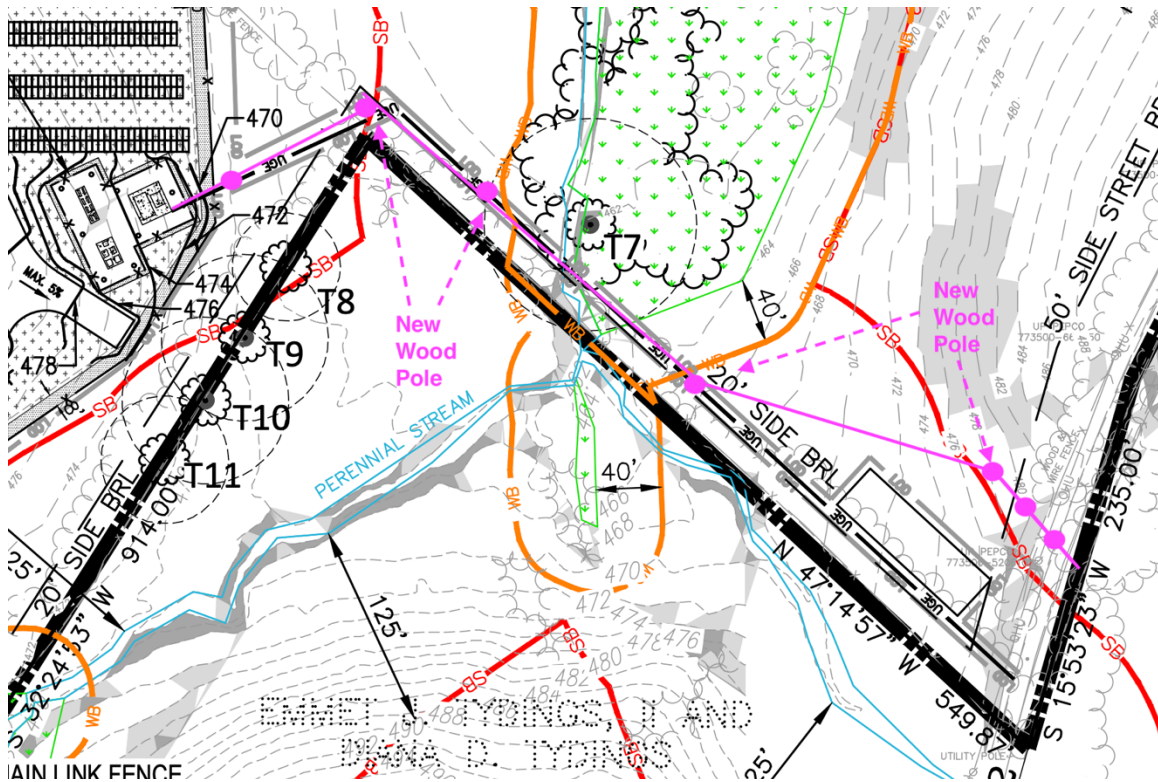
Description of Interconnect Facilities

The electrical interconnect will be accomplished by locating a new 3-phase 13.6-kV alternating-current conductor circuit between the existing PEPCO Feeder 15906 and the Solar Project electrical switchgear cabinet. The new conductor can be located either: (a) overhead on wood poles; or (b) underground in plastic conduit. Regardless of whether the conductor is located overhead or underground, PEPCO will install 2 or 3 wood poles on Farm property immediately adjacent to its existing pole on Zion Road. These poles will carry the conductors from the existing 15906 circuit a short distance onto Farm property and will also hold PEPCO metering, disconnect switches and communications equipment. The distance from the existing PEPCO Feeder 15906 to the Solar Project termination point at the Project switchgear cabinet is approximately 600 feet. The site assessment identified a stream and wetland area that runs between the point of interconnect with PEPCO at Zion and the solar array and electrical switchgear termination point. The interconnect plan and facilities must be designed to minimize any impacts on the stream and wetland area.

Design Option A – Overhead Circuit

The preferred design for the interconnecting circuit is to mount the conductors overhead on new wood poles to be located on the Farm property (see Figure 2). The overhead design is the standard practice in rural areas and allows for ease of installation and maintenance. The overhead circuit envisioned for the Solar Project would require seven wood poles (type 50-2) each of about 18-inch diameter to be placed roughly in locations shown on Figure 2. All

Figure 2. Overhead Circuit Conceptual Plan

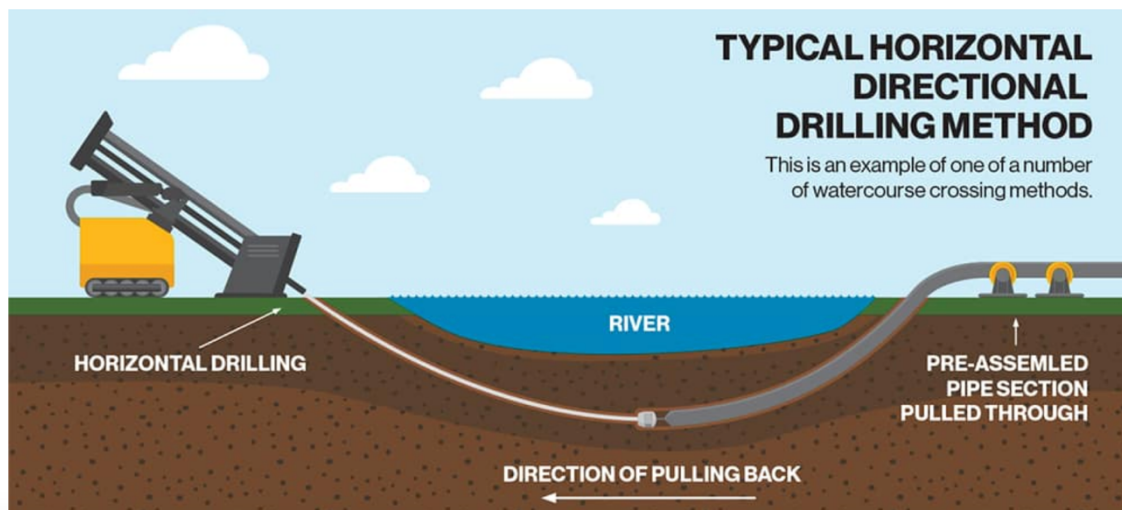


of the poles can be located outside the actual wetland area (green cross hatch area on Figure 2) and wetland buffer, and only two poles need to be located within the wider stream buffer perimeter. FR Solar would minimize the impacts to wetland and stream buffer areas during installation. The poles would be installed in holes drilled by an auger-type drilling rig at a depth of 8 to 12 feet depending on pole height and soil type. Once the poles are raised, workers will install the aluminum conductors via man lifts or ladder. The pole installation process will require approximately 1-2 weeks of onsite work. FR Solar would require that the poles on the west side of the wetland would be accessed only from the west and the drilling rig, man lifts or any other heavy equipment would not be allowed to cross the wetland area.

Design Option B – Underground Circuit

The alternative design for the interconnecting circuit is to bore under the wetland area using a directional drilling technique. Directional boring of this type is being used increasingly as a convenient and safe method for installing utilities and fiber-optic cable under roadways, wetlands, rivers and other obstacles. Horizontal directional drilling (“HDD”) utilizes a controlled articulating drillhead to create a borehole at a precise location and depth. The directional bore would be used to install a sturdy durable watertight plastic conduit pipe (cross-linked polyethylene or similar). An insulated aluminum conductor would be pulled through the conduit from one “daylight” end to the other (see Figure 3).

Figure 3. Horizontal Directional Drilling Illustration




The drilling rig sits at one end of the route and drills underground toward the target endpoint. The direction and depth of the drilling head is controlled using various electronic guidance methods. Once the initial bore is complete to the endpoint, a larger-diameter reaming bit is attached and pulled back through the initial bore hole back to the starting location. Usually this reaming bit is also pulling back through the hole the conduit segments which are pre-assembled and fused together to create a long underground continuous conduit. A “drilling mud” is usually used to provide lubrication for the drilling head and structural support for the borehole. The “mud” is a water/clay (bentonite) slurry that

although non-toxic is carefully controlled at each “daylight” termination point. The conduit for this application would be approximately 8 inches in diameter, subject to final electrical design requirements. The electrical conductor, which has each electrical phase wrapped in an insulating sheath, is pulled through the conduit.

The depth of the bore can vary with requirements. For the Solar Project at this location, we expect a 10- to 20-foot depth would be sufficient to drill all the way underneath the stream and wetland areas without creating any impact beyond the drilling end and the termination point. FR Solar would ensure that the drilling contractor is capable and experienced, and would locate the drilling machine and the conduit assembly operation outside of the critical areas. The conduit installation process will require approximately 2-3 weeks of onsite work.

Interconnect Route

The electrical interconnect would follow a similar route whether located overhead on poles or underground. See Figure 2 above and photos below of electrical interconnect route.

Description	Photo
<p>1. Point of stream crossing, looking east toward Zion.</p> <p>Tree center left is T7 specimen tree</p> <p>See PEPCO power pole in distance</p>	

2. Point of stream crossing, close up showing old bridge, looking east toward Zion

See PEPCO power pole in distance



3. Route of electric interconnect

From Zion looking west toward stream and solar site

