SKY Solar Inc.
1129 Northern Blvd, Suite 404
Manhasset, NY, 11030.

July 9, 2024

Sent Electronically to rlbplans@gmail.com

Mr. Edward Hemminger, Chairperson
Town of Farmington Planning Board
1000 County Road 8
Farmington, New York 14425

Dear Mr. Hemminger,

As requested by town staff, Sky Solar is responding to a series of concerns raised by one of the residents in an email dated July 5, 2024. A number of these concerns and safety issues have been previously addressed by Sky Solar through our written submissions to the Planning Board, during the Planning Board meeting on June 19th along with responses from the Fire Chief and our 3rd party fire safety consultant. We are including a summary of those responses again for the convenience of the Planning Board.

1. NY Governor recommendations

   There are over 5000 energy storage systems installed in NY State (tracked by NYSERDA) ranging from residential size to commercial to utility scale. Even though incidents are rare, fire safety is of the utmost importance.

   On July 28, 2023, Governor Kathy Hochul announced the establishment of an Inter-Agency Fire Safety Working Group to address safety concerns related to energy storage systems in New York State. On February 6, 2024, the Working Group released a draft recommendation for Battery Energy Storage Systems (BESS) updates in the Fire Code of New York State (FCNYS).

   The proposed recommendations focus on enhancing existing regulations and improving coordination with local Authorities Having Jurisdiction (AHJs) and emergency responders. Key recommendations include:

   - Qualified fire mitigation personnel should be available for dispatch within 15 minutes and arrive on the scene within four hours during a BESS fire.
   - Enhanced safety signage should extend beyond the BESS unit to include perimeter fences, displaying 24-hour emergency contact information and relevant hazard warnings.
   - Continuous monitoring of Battery Management System (BMS) data by a staffed Network Operations Center (NOC), including the use of closed-circuit television (CCTV), ensuring immediate communication of critical notifications.

   Specific to the Commercial Drive Solar Project, Sky Solar has engaged with industry leading fire safety consultants ESRG and Farmington Fire Department Chief to review the design and installation which will result in an Emergency Response Plan and training for all emergency responders. Furthermore the project will be continuously monitored by the industry's leading asset management company, STEM Energy, to provide immediate notification of any critical events.

2. Leaching and Disposal

Modern solar photovoltaic (PV) technology aims to minimize environmental impact throughout its lifecycle, including production, operation, and disposal. Sky Solar plans to use silicon-based solar panels, which are the most widely used types globally. These panels, made from abundant and non-toxic silicon, contain minor amounts of heavy metals, primarily in the solder and electrical components. The metals are encapsulated within the panel structure using materials like ethylene-vinyl acetate (EVA) and tempered glass, reducing exposure risk during the panel's operational life.

We would like to clarify that after the useful life of the system, Sky Solar intends to restore the land to its original condition. This is described in a decommissioning plan submitted as part of our application. None of the equipment used in this project will be disposed of on-site and proper decommissioning includes dismantling solar arrays and associated infrastructure, recycling materials wherever possible, and safely disposing of any non-recyclable components. This comprehensive approach helps to minimize waste and promotes the sustainable use of resources.

As the solar industry expands, so does the infrastructure for recycling and safely disposing of solar panels and batteries. Since solar panels contain valuable materials like silicon, aluminum, and glass, recycling helps recover these resources instead of disposing of them in landfills. When a solar field reaches the end of its lifespan, the panels are carefully disassembled, and their components are sorted for recycling. This not only reduces waste but also minimizes the environmental impact of solar energy production.

3. Electromagnetic Fields (EMFs)

Scientific consensus, including assessments by organizations such as the World Health Organization (WHO), indicates that extremely low frequency (ELF) EMFs, like those produced by solar farms, are unlikely to cause significant health effects at typical environmental exposure levels. Studies into the health effects of EMFs from sources such as power lines and electrical infrastructure associated with solar farms generally indicate low risks when exposure levels are within established safety guidelines.

Measurements conducted around solar farms typically show low levels of magnetic flux density (measured in μT) and electric field strength (measured in V/m), which are well below international guidelines for public exposure to ELF EMFs. For example, magnetic field levels near solar installations commonly measure a few microtesla (μT) or less, significantly below the reference level of 200 μT averaged over a 24-hour period recommended by organizations like the International Commission on Non-Ionizing Radiation Protection (ICNIRP) for public exposure to ELF magnetic fields.

4. Property Values:

Large-scale studies, such as the Laboratory Berkeley National Laboratory study conducted in 2023, have found that solar facilities had no effect on home values in half of the states studied. However, in cases where a small decrease in surrounding home value was noted, it was observed that the solar arrays were located on land previously used for agriculture, in rural areas, or for projects larger than 7MW with over 12 acres of solar panels. Notably, Sky Solar’s Commercial Drive Solar projects do not meet any of these conditions.

We would like to emphasize the value of green energy solutions. Solar energy systems serve as zero-carbon generation systems, contributing to environmental sustainability. Additionally, solar and energy storage solutions enhance the resiliency of the grid that

supplies energy to all residents and businesses of Farmington. Moreover, residents and businesses can participate in direct cost savings on their utility bills by subscribing to the energy output of the solar project. Furthermore, the implementation of solar projects has a positive economic impact, including job creation and direct and indirect benefits to supporting and service industries located in the Town of Farmington.

5. Electromagnetic Hypersensitivity

   Common household items, such as microwave ovens, refrigerators, and washing machines generate electromagnetic fields during operation. These EMFs typically decrease sharply with distance away from the appliance. For instance, at a distance of about 1 foot, the magnetic field around most household appliances is much lower than the guideline of 100 µT at 60 Hz for the general public, and at a distance of about 3 feet, the field becomes negligible. Microwaves, for instance, can emit EMFs up to 100 µT at 1 foot. TVs generate EMFs that are generally low, around 0.2-2 µT at 1 foot. Cell phones emit EMFs of up to 1-2 µT during calls.

   In a solar farm the electrical devices such as solar panels and inverters produce comparable EMFs as home appliances and typically measure 0.1 to 1 uT at the fence line enclosure of the facility. A fence can be 20- 30 feet away from any device and setbacks can be 80 to 100 feet or more from property lines. In the case of the Commercial Drive Solar project the nearest residence is approximately 200ft from any electrical device.

   The other source of EMFs in a solar farm are the transformers and utility lines. These are the same devices and lines that run along our roadways and service the residences and businesses in the town. According to guidelines, transformers stepping down from 10-30 kV to 220-400 V should maintain a distance of 20 to 30 feet and typically safe distances from utility distribution lines range from 10-60 feet (depending on voltage).

   The Commercial Drive Solar project utility lines are over 375 feet away from the nearest resident.

   In addition, the concerned resident is 3175 feet away from the nearest substation and 2650 feet away from the proposed project site. As a comparison, the nearest substation is over 3 times larger than the proposed project.

We are happy to address any questions or concerns and look forward to building a successful project in the Town of Farmington.

Sincerely,

DocuSigned by:
Frank Ruffolo
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Frank Ruffolo
EVP of Operations

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