

**VIA HAND DELIVERY AND EMAIL TO *edhemminger@gmail.com*;
rlbplans@gmail.com; *john.robortella@gmail.com***

July 17, 2019

Planning Board
Town of Farmington
1000 County Road 8
Farmington, NY 14425

**Re: Application of Delaware River Solar to construct a 7 MW solar
facility at 466 Yellow Mills Road
SEQRA Determination of Significance
PB # 1003-18 Preliminary Four-Lot Subdivision Plat
PB # 1004-18 Preliminary Site Plan
PB # 1006-18 Special Use Permit**

Dear Planning Board Members:

We represent a group of landowners and residents with respect to the following applications by Delaware River Solar, LLC ("Delaware") to construct a 7 MW solar facility at 466 Yellow Mills Road (the "Project"):

**SEQRA Determination of Significance
PB # 1003-18 Preliminary Four-Lot Subdivision Plat
PB # 1004-18 Preliminary Site Plan
PB # 1006-18 Special Use Permit**

For the reasons set forth in this letter, we ask you to issue a Positive Declaration of Environmental Significance ("Pos Dec") for the Project, or, in the alternative, deny Delaware's applications for subdivision approval, site plan approval, and a special use permit.

THE PLANNING BOARD MUST MAKE A POSITIVE DECLARATION ("POS DEC") OF ENVIRONMENTAL SIGNIFICANCE

The Lead Agency must issue a Pos Dec if it determines that the proposed action "may have a significant adverse impact on the environment." 6 NYCRR 617.7(b)(3). "Because the operative word triggering the requirement of an EIS is 'may,' there is a relatively low threshold for the preparation of an EIS."¹ Type I actions, like the one proposed by Delaware River Solar, carry a presumption that they are likely to have a significant adverse impact on the environment requiring preparation of an EIS.² The EIS is the "heart of SEQRA" which should be viewed as "an environmental 'alarm bell'" to "alert responsible public officials to environmental changes before they have reached ecological points of no return."³ "In making this initial environmental analysis, the lead agencies must study the same areas of environmental impacts as would be contained in an EIS, including both the short-term and long-term effects ... as well as the primary and secondary effects ... of an action on the environment."⁴

SEQRA requires "literal compliance" with its procedural requirements because the Legislature directed that the policies of the State and its political subdivisions shall be administered "to the fullest extent possible" in accordance with SEQRA.⁵

The Town has already correctly identified six potentially significant environmental impacts at its May 15, 2019 meeting including: impacts to land; impacts to agricultural resources; impacts to aesthetic resources; impacts on open space; consistency with community plans; and consistency with community character. In addition to these areas requiring further study identified by the Town, we believe the Planning Board must also require a more robust traffic analysis and review of potential impacts that may be caused by the solar panels and driven steel pilings.

Project's Impacts on Traffic Require Further Study

SRF Associates' Trip Generation/Crash Analysis Letter dated May 31, 2019 is insufficient to establish that there will be no significant adverse impact on the environment as a result of the construction and operation of the solar panels.

¹ *Omni Partners, L.P. v. County of Nassau*, 237 A.D.2d 440, 442 (2d Dep't 1997) (citations omitted).

² 6 NYCRR 617.4(a)(1).

³ *Town of Henrietta v. Dep't of Environmental Conservation of State of New York*, 76 A.D.2d 215, 220 (4th Dep't 1980).

⁴ *Chinese Staff and Workers Association v. City of New York*, 68 N.Y.2d 359, 364 (1986).

⁵ ECL 8-103(6); *Matter of Rye Town/ King Civic Association v. Town of Rye*, 82 AD2d 474, 480 (2d Dept. 1981), app. dismd. 55 NY2d 747 ("Rye Town").

A. SRF Associates' Crash Analysis

The Town of Farmington hired SRF Associates to perform a traffic analysis based on concerns voiced at the Planning Board meetings. SRF Associates, in their letter dated May 31, 2019, provided a trip generation /crash letter analysis for the Yellow Mills Road/Fox Road intersection.⁶ This analysis was not a traffic study.

SRF Associates' analysis found that from January 2014 through April 2019, 7 crashes were documented at the Yellow Mills Road/Fox Road intersection.⁷ The traffic analysis explained that "there is a pattern of northbound and southbound drivers failing to yield the right of way to eastbound and westbound drivers."⁸ During the period studied, the intersection had a crash rate over ten times greater than the statewide average.⁹ The accident rate, calculated as accidents per million entering vehicles (Acc/MEV) is 1.52.¹⁰ The statewide average is 0.15.¹¹

Residents, through letters and comments to the Planning Board, have cited a number of safety concerns regarding the Yellow Mills Road/Fox Road intersection.¹² For example, accidents at the Yellow Mills Road/Fox Road intersection have yielded at least one fatality.¹³ Drivers regularly run the stop sign located at the Yellow Mills Road/Fox Road intersection.¹⁴ Residents also have concerns that the Yellow Mills Road/Fox Mills Road intersection will become more dangerous at morning and evening rush hour during the Project's construction period, which was not reviewed by SFR Associates. In fact, the site plan locates the main access road in close proximity to a crest in Fox Road, and reduced visibility could become a major safety concern.

While SRF Associates' analysis indicated that corrective action is not needed at this time, it states that Ontario County Department of Public Works (OCDPW) may "consider additional warning measures", if the number or severity of accidents increase at the intersection.¹⁵ SRF Associates cautioned that the proposed DRS Solar Farm should not have any equipment or plantings within

⁶ SRF Associates' Trip Generation/Crash Analysis Letter ("SRF Associates' Letter") letter dated May 31, 2019, attached hereto as **Exhibit A**.

⁷ SRF Associates' Letter, p. 2.

⁸ Id.

⁹ Id.

¹⁰ Id.

¹¹ Id.

¹² Letter from Jim Redmond to Planning Board, dated November 20, 2018. See Planning Board Meeting Minutes, November 7, 2018, (p. 17) and June 5, 2019 meeting minutes, (P. 7) attached hereto as **Exhibit B**.

¹³ Letter from Jim Redmond to Planning Board, dated November 20, 2018.

¹⁴ Id.

¹⁵ SRF Associates' Letter, pgs. 2-3.

sight lines of the intersection.¹⁶ It is not clear if SRF Associates reviewed the developer's latest landscaping plan as the letter did not discuss the Project site plan configuration and intersection site lines.

Further study of the Project's traffic impacts are needed. SRF Associates analysis does not indicate that this intersection is safe. The Yellow Mills Road/Fox Road intersection has an accident rate that is ten times higher than the statewide average.¹⁷ Additionally, the Project's potential impacts on traffic safety at the Yellow Mills Road/Fox Road intersection are unclear. In fact, its analysis indicates that additional warning measures **may** be needed if the number or severity of crashes increases at this intersection.¹⁸ This indicates that the Project **may** include the potential for at least one significant environmental impact, warranting an EIS.

B. SRF Associates' Trip Generation

SRF Associates found that a traffic impact study was not required.¹⁹ Two yearly maintenance days are anticipated which will allegedly generate only two full day trips to the site.²⁰ This low level of trip generation does not meet the threshold required for a traffic study.²¹ Traffic studies are typically required "if a proposed project is projected to add 100 site generated vehicles per hour (vph) on any one intersection approach."²²

However, SRF Associates' trip generation analysis does not evaluate traffic impacts during construction period.²³ This is problematic because construction will likely occur during warmer months, when potential driver/pedestrian conflicts are more likely to occur. Further study is required because the short term traffic impacts during construction will likely require mitigation.

However, any mitigating measures proposed by DRS cannot be incorporated into the FEAF and required by the lead agency as a condition precedent to issuing a negative declaration.²⁴ Consequently, the Planning Board, as lead agency, must issue a positive declaration and prepare an EIS.

¹⁶ Id. at 3.

¹⁷ Id. at 2.

¹⁸ Id. at 3.

¹⁹ Id. at 3.

²⁰ Id.

²¹ Id.

²² Id.

²³ Id.

²⁴ *Merson v McNally*, 90 N.Y.2d 742, 753 (1997).

C. Traffic Safety Mitigation at Intersection of County Road 28 and Shortsville Road

Similar traffic safety concerns are currently being addressed by Ontario County's proposed redesign of the intersection of County Road 28 and Shortsville Road.²⁵

The intersections of County Road 28/Shortsville Road and Yellow Mills Road/Fox Road share many similarities. Maximum speed limits through the County Road 28/Shortsville Road intersection and Yellow Mills Road/Fox Road intersections are both 55 MPH.²⁶

Failure to yield right of way is a major contributing factor to accidents at the County Road 28/ Shortsville Road intersection, like the cause of accidents at the Yellow Mills Road/Fox Road intersection.²⁷ In fact, the County Road 28 and Shortsville Road intersection "represents a substantial ongoing safety concern."²⁸

The calculated accident rate for the County Road 28/Shortsville Road intersection is 1.95 accidents per million entering vehicles (as compared to 1.52 accidents per million entering vehicles at the Yellow Mills Road/Fox Road intersection).²⁹ Additionally, both intersections have accident rates are well above the New York State average. The accident rate for the County Road 28/Shortsville Road intersection is 6 times higher than the statewide average accident rate while the Yellow Mills Road/Fox Road intersection has an accident rate is 10 times higher than the statewide average accident rate when both intersections are compared to similar intersections statewide.³⁰ Because the accident rates for the County Road 28/Shortsville Road and the Yellow Mills Road/Fox Road intersections are very similar, the Yellow Mills Road/Fox Road intersection requires further study.

The SRF Associates analysis does not indicate that Yellow Mills Road/Fox Road intersection is safe, and the comparable County Road 28/Shortsville Road intersection has been determined to present serious safety concerns. Not surprisingly, SRF Associates' crash analysis for the Yellow Mills

²⁵ See County Road 28 at Shortsville Road Intersection Improvement Draft Design Report, attached hereto as **Exhibit C**.

²⁶ P. 1 of SRF Associates' Letter indicates that the speed limit for the Yellow Mills Road/Fox Road intersection is unposted. County Road 28 at Shortsville Road Intersection Improvement Draft Design Report, p. 1-1

²⁷ SRF Associates' Letter, P. 2 and County Road 28 at Shortsville Road Intersection Improvement Draft Design Report, p. 1-1.

²⁸ County Road 28 at Shortsville Road Intersection Improvement Draft Design Report, p. 1-1.

²⁹ County Road 28 at Shortsville Road Intersection Improvement Draft Design Report, p. 2-1 and SRF Associates' Letter, p.2.

³⁰ Id.

Road/Fox Road intersection indicates that additional warning measures **may** be needed if the number or severity of crashes increases at this intersection.³¹ This indicates that the Project **may** include the potential for at least one significant environmental impact, warranting an EIS.

Impacts From Solar PV Panels Require Further Study

Foundation Design's geotechnical study raises concerns about impacts to surface water, groundwater, drainage patterns, and soils as a result of this Project.

A. Foundation Design Geotechnical Study and Impacts to Surface Water, Groundwater, and Drainage Patterns

Foundation Design's study indicates the presence of perched groundwater. This is significant because the Project site contains four regulated wetlands and is located above a principal unconfined aquifer. Foundation Design's Geotechnical study states:

Shallow, 'perched' groundwater conditions (wet/saturated soil samples within four feet of the surface) were noted at borings P-2, P-6, P-8, P-12, P-14, P-15 and P-22....Heavy water flow occurred into the test pit excavated adjacent to P-6 below 2.5 feet after heavy rains the day before; soil samples at a similar depth were wet (not saturated when boring P-6 was performed a week prior. While we believe that this perched water condition is due to water traveling on top of the dense glacial till formation, it may intersect with the groundwater the surfaces near Fox Road. The high permeability of the upper/sand gravel formation overlying the dense soil likely results in large fluctuations in the water levels over short periods.

July 9, 2019 Foundation Design Geotechnical Study, P. 4.

The Project site contains two federally regulated and two state regulated wetlands, which are hydrologically connected to off-site wetlands and streams.³² Further, the soils on the Project site lay on top of a principal unconfined aquifer, which recharges from surface water that percolates through the soils when water seeps in from pores in the ground's surface directly above the aquifer.

Based on the findings of the Developer's geotechnical study, it is likely that the Project will have one or more moderate to large impacts to surface water and

³¹ SRF Associates' Letter, P. 3.

³² North Country Ecological Services Wetlands Delineation Report, P. 7, attached hereto as **Exhibit D**.

groundwater. The Developer's geotechnical study indicates that large fluctuations in water levels already occur on the Project site.³³ This is will certainly be exacerbated by addition of 21,000 impermeable and densely massed solar arrays.

Additionally, the proposed action may result in or require modification of existing drainage patterns because it will create an industrial facility containing 21,000 impervious solar arrays on farmland. As observed by the New York State Department of Environmental Conservation ("NYSDEC"), the addition of one acre of impervious surface can produce 16 times more stormwater runoff than a one-acre meadow each year.³⁴ Contrary to the Applicant's most recent claim, impervious surfaces such as solar panels will concentrate precipitation before it reaches the ground and increase stormwater runoff: placement of the panels will not improve water absorption on-site.³⁵ Impervious surfaces also accumulate pollutants and sediments which, when washed off during storm events, are rapidly delivered to nearby water bodies.³⁶ Concentrated stormwater runoff resulting from densely massed impervious solar array surfaces will impact stormwater flow and quality in and around the Project site. These impacts may be exacerbated by differences in soil and slope characteristics on the Project site. As noted above, there are four regulated wetlands on the site which will likely be impacted by any increase in stormwater volume.

No data has been provided to this Board about the impact of the addition of 21,000 impermeable solar arrays to surface water, ground water and drainage patterns in and around the proposed Project's site aside from the Applicant's unsubstantiated and incorrect assertion that absorption will be improved. The proposed Project's impacts to the aquifer are unclear and warrant further investigation. For these reasons, the Planning Board as lead agency must issue a Pos Dec for this Project.

B. Foundation Design Geotechnical Study and Impacts to Land

The proposed action would result in the physical disturbance of at least 1.1 acres of agricultural soils and will require: creation of an access road; burying of electric cables; installation of a steel post support structure for 21,000 solar arrays; construction of a concrete pad for each solar system; and installation of inverter and transformer equipment.

³³ July 9, 2019 Foundation Design Geotechnical Study, P. 4, attached hereto as **Exhibit E**.

³⁴ See, New York State Stormwater Design Manual, Chapter 2, 2-1. Available at <https://www.dec.ny.gov/chemical/29072.html>. Chapter 2 is attached hereto as **Exhibit F**.

³⁵ Id.

³⁶ See, New York State Stormwater Design Manual, Chapter 2, 2-2.

The developer's geotechnical study makes several recommendations regarding the earthwork preparation required to make the site construction-ready, which indicates that the proposed Project may have the potential for significant environmental impacts to land. For example, the proposed Project site contains cobbles, boulders, and dense soil conditions which limit penetration depths and require pre-augering to bore holes in soil that would be otherwise be too rocky for a foundation system required to mount 21,000 solar panels.³⁷ Additionally, the developer's geotechnical report states that the Project will likely entail significant top soil removal, especially under the transformer pad and support equipment because the Project site's soils are moisture sensitive and are frost susceptible.³⁸ This is important because seasonal freezing and thawing will impact the stability of the solar panel racking system and other ground-mounted equipment throughout the Project site.³⁹

Notably, the developer's geotechnical study recommends that site drainage is required to prevent ponding from occurring on the site.⁴⁰ The fact that the Project requires a Stormwater Pollution Prevention Plan (SWPPP) does not obviate the need for additional study regarding potential impacts to surface and groundwater.⁴¹ Rather, it should be indicative of the potential for a moderate to large impact on surface water.

The purpose of a SWPPP is to mitigate impacts during construction only, not to evaluate whether and to what extent an impact will occur as required under SEQRA. Because the Project site disturbs more than one acre it requires a SWPPP approved by NYSDEC. However, a SWPPP does not address potential stormwater pollution post-construction.

A lead agency may not delegate its decision-making authority under SEQRA to another agency involved in an environmental permitting, such as the DEC. Consequently, mitigating measures proposed by DRS cannot be incorporated into the FEAF and required by the lead agency as a condition precedent to issuing the negative declaration.⁴²

³⁷ Foundation Design Geotechnical Report, Pgs. 5, 6.

³⁸ Id. at 6.

³⁹ Id.

⁴⁰ Id. at 8.

⁴¹ A lead agency may not delegate its decision-making authority under SEQRA to another agency involved in an environmental permitting, such as the DEC. An important limiting principle in an involved agency's authority to impose mitigating measures is that SEQRA does "not change the jurisdiction between or among state agencies and public corporations." ECL § 8-0103(6); 6 N.Y.C.R.R. § 617.3(b). As noted above, The SEQRA review process and individual agency permitting processes are different reviews governed by different laws and standards. A lead agency may not delegate its decision-making authority under SEQRA to another agency involved in an environmental permitting or oversight process related to the Project.

⁴² *Merson v McNally*, 90 N.Y.2d 742, 753 (1997).

Finally, the developer's geotechnical report indicates that the soil corrosivity is low.⁴³ It is unclear soil conditions (including PH) may change over time as a result of the proposed Project. The Project site will be covered in impervious surfaces, which will limit the soil's ability to properly drain.⁴⁴

This is important because thousands of steel pilings coated with zinc will be driven into the ground. Rain water and water condensation can corrode galvanized steel pilings.⁴⁵ Additionally, zinc can be dispersed into the environment from corroded galvanized steel pilings.⁴⁶ Increased zinc concentrations can negatively impact environmental health, including terrestrial and aquatic plants and animals.⁴⁷

The recommendations contained in the developer's geotechnical study give rise to further questions and indicate that current on-site conditions are unsuitable for the Project. Consequently, the pre-construction work needed to make the Project suitable for constructing 21,000 solar arrays may have the potential for significant adverse environmental impacts.

Potential Leaching from Solar PV Panels Requires Further Study

Additionally, potential leaching of contaminants from broken solar panels should be investigated further by the Planning Board. While the Project will not use water, most of the Project site contains moderate to high permeability soils.⁴⁸

Potential leaching from Solar PV panels has been raised as a significant environmental concern requiring further study by residents at recent planning board meetings.⁴⁹ Solar PV panels can contain metals such as Arsenic, Barium,

⁴³ Foundation Design Geotechnical Report, P. 4 and 5.

⁴⁴ See, New York State Stormwater Design Manual, Chapter 2, 2-1.

⁴⁵ Id. at 2-6. See also "Contributions of Heavy Metals from Material Exposures to Stormwater," Pitt, R. and Ogburn, O. University of Alabama (2013), Pg 3, available at http://rpitt.eng.ua.edu/Publications/4_Stormwater_Characteristics_Pollutant_Sources_and_Land_Development_Characteristics/Stormwater_pollutant_sources/Contributions_of_Heavy_Metals_from_Material_Exposures_to_Stormwater.pdf. Attached hereto as **Exhibit G**.

⁴⁶ Contributions of Heavy Metals from Material Exposures to Stormwater," Pitt, R. and Ogburn, O. University of Alabama (2013), Pg 6.

"Zinc Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review" Eisler, Ronald. U.S. Fish and Wildlife Contaminant Hazard Reviews, Report 26. Biological Report 10. April 1993. P. 6-7. Available at https://www.pwrc.usgs.gov/eisler/CHR_26_Zinc.pdf. Attached hereto as **Exhibit H**. See Also, New York State Stormwater Design Manual, Chapter 2, 2-6.

⁴⁷ "Zinc Hazards to Fish, Wildlife, and Invertebrates: A Synoptic Review" Eisler, Ronald. U.S. Fish and Wildlife Contaminant Hazard Reviews, Report 26. Biological Report 10. April 1993. P. 4.

⁴⁸ Ontario County Planning Board Draft Meeting Minutes, September 12, 2018, P. 16, attached hereto as **Exhibit I**.

⁴⁹ See April 17, 2019 and May 15, 2019 Planning Board meeting minutes. Attached hereto as **Exhibit J**.

Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.⁵⁰ The developer relies on toxicity reports⁵¹ which state that the solar PV panels which may be installed at the site meet EPA standards, but installed panels are not totally safe from an environmental and health standpoint.⁵² Toxic compounds contained within the panels may leach out into the environment if panels break or are not disposed of properly.⁵³

In fact, the attached study “Long-Term Leaching of Photovoltaic Modules” indicates that metals are released from Solar PV panels under a wide range of environmental conditions.⁵⁴ This creates serious concerns for Solar PV panel maintenance, as the proposed Project will presumably have a 30 year life span, and routine maintenance may only take place 2 times per year.

Notably, solar panels can be damaged during severe weather events, such as rain and wind storms, increasing the risk that toxic compounds contained in PV panels are released into the environment.⁵⁵ The risk of toxic compounds leaching out of damaged Solar PV panels at the proposed Project site is a significant environmental concern because the proposed Project sits on top of an aquifer and is located close proximity to environmentally sensitive wetland resources.

Moreover, developer’s decommissioning plan does not fully address the environmental risks posed by removal and disposal of the solar panels.⁵⁶ Solar PV panels are becoming harder and more costly to recycle as panel technology becomes more advanced.⁵⁷ Landfilling solar PV panels may result in toxic metals leaching out into the environment.⁵⁸ These issues create a wide range of potentially significant adverse environmental impacts which should be further investigated by the Planning Board.

⁵⁰ See Developer’s Solar Panel Toxicity Report, Item #03, Town of Farmington Solar Committee website, attached hereto as **Exhibit K**.

⁵¹ Id.

⁵² “If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste?” Shellenberger, Michael. Forbes, May 23, 2018, available at <https://www.forbes.com>, attached hereto as **Exhibit L**.

⁵³ Id.

⁵⁴ “Long-term leaching of photovoltaic modules,” Nover, Jessica, et al. Japanese Journal of Applied Physics, 56 08MD02 (2017), P. 1, 6. Attached hereto as **Exhibit M**.

⁵⁵ “If Solar Panels Are So Clean, Why Do They Produce So Much Toxic Waste?” Shellenberger, Michael. Forbes, May 23, 2018, available at <https://www.forbes.com>.

⁵⁶ DRS Solar Decommissioning Plan, pgs.3-5, Item No. 2, Town of Farmington Solar Committee website, attached hereto as **Exhibit N**.

⁵⁷ “Innovation is Making Solar Panels Harder to Recycle,” McMahon, Jeffery. Forbes, Sept. 4, 2018. Available at www.forbes.com, attached hereto as **Exhibit O**.

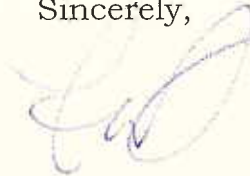
⁵⁸ “Long-term leaching of photovoltaic modules,” Nover, Jessica, et al. 2017 Japanese Journal of Applied Physics 56 08MD02 (2017), P. 1, 6.

CONCLUSION

For the foregoing reasons, we request that the Planning Board a positive declaration of environmental significance and require preparation of an Environmental Impact Statement.

Thank you for reviewing this letter. If you have any questions please do not hesitate to contact me.

Sincerely,



Frances Kabat

Enc.

Cc: Jeffrey D. Graff, Esq.

Jim Foley, Esq.

Jim Falanga