From: Irvin Boyles <irv.boyles@verizon.net>

Sent: Tuesday, January 8, 2019 5:19 PM

To: berkeleymaddox@gmail.com; grenewpc@gmail.com; Paulette Mann; 2012sheriffsmith@gmail.com; spotsysalem@gmail.com; TravAAU@cox.net

Cc: Thomas G. Benton; Chris Yakabouski; Kevin Marshall; Timothy J. McLaughlin; David Ross; Paul D. Trampe; Gary Skinner; Aimee Mann; Wanda Parrish; Paulette Mann; Patrick White; concernedcitizensspotsylvania@gmail.com

Subject: sPower Application for SUP: Electric Power Grid Emergency Back-Up Power

Attachments: Electric Grid Back-Up.docx

January 8, 2019

I am Irvin Boyles, and I live in the Livingston District. I have previously addressed the Planning Commission and Board of Supervisors about my concerns about risks of the sPower's solar farm installation's dependency on the stability of the electric power grid through Dominion Power to utilize or absorb all of the electric energy (500 Megawatts to be generated daily?). I have not seen any movement by anyone, including sPower, to address this concern. And no emergency action plan has been proposed by sPower for the case that the electric grid goes down for any length of time (not their problem?).

The electric grid is the source of electricity to residents, businesses, and critical infrastructure of Spotsylvania County through Dominion Power, and sPower proposes it will also supply (sell) electricity to Microsoft, Amazon, University of Virginia at Richmond (and others?). The continuous availability of the electric grid is also a necessity to provide continuous electrical cooling for nuclear power plant reactors and spent fuel pools at Lake Anna to prevent a nuclear meltdown.

I have previously provided references that have documented vulnerabilities of electric grid from electromagnetic threats to the United States and its allies from electromagnetic pulse (EMP), geomagnetic disturbance (GMD), lasers and optics, directed energy (DE), and high power microwaves (HPM) that can incapacitate an electrical grid from weeks to months. I have yet to see an emergency action plan or explanation from sPower and/or Dominion Power how they will

deal with 500 Megawatts of electrical energy if they are unable to disperse it into the electrical grid; how they will prevent probable destruction (fires, spillage of toxic materials) from all components of the solar farm (solar panels, inverters, transformers, storage batteries, and even power transmission lines, as well as the interface with Dominion Power, if this electrical energy can't be dispersed safely.

I propose that a condition for approval of this SUP that sPower, in coordination with Dominion Power, (1) produce an emergency action plan that addresses the scenario of how to disperse 500MW of electrical energy daily if the electric grid goes down for any length of time (months?); and (2) provide a means by which some of that power can be used as emergency back-up power for the County residences, businesses, and critical infrastructure including electrical cooling for nuclear power plant reactors and spent fuel pools at Lake Anna and other nuclear power plants for the duration of an electric grid outage. In other words, the County should reap some benefit (other than tax revenues?) from hosting such a large installation in its backyard with all of the other risks associated with it.

Please think about it, and consider making it a condition for approval of the sPower application for a SUP.

Thank you.

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