STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

DWW SOLAR II, LLC PETITION FOR : PETITION NO. 1313

DECLARATORY RULING THAT NO

CERTIFICATE OF ENVIRONMENTAL

COMPATIBILITY AND PUBLIC NEED

IS REQUIRED FOR A 26.4 MEGAWATT

AC SOLAR PHOTOVOLTAIC ELECTRIC

GENERATING FACILITY IN SIMSBURY

CONNECTICUT : OCTOBER 6, 2017

<u>DEPARTMENT OF AGRICULTURE'S RESPONSES TO</u> DWW SOLAR II, LLC'S FIRST SET OF INTERROGATORIES

The State of Connecticut Department of Agriculture, a party to this proceeding, hereby responds to DWW Solar II, LLC's First Set of Interrogatories to the Department of Agriculture, dated September 26, 2017.

Interrogatory No. 1

Please refer to the comments of the DOA submitted to the Siting Council on August 30, 2017. Who are the individual(s) who were responsible for developing, assisting with the development of or drafting those comments?

Response

The following individuals were responsible for developing, assisting with the development of or drafting of the comments: Jason Bowsza, Stephen Anderson, and Kip Kolesinskas, Commissioner Steven K. Reviczky.

Interrogatory No. 2

With respect to DOA's comments regarding food security, what percentage of the food consumed in the state of Connecticut is grown in the state of Connecticut?

Response

Recent updates by the UConn Department of Agriculture and Resource Economics estimates that currently about 3% of the food consumed is grown in Connecticut. Connecticut General Statutes 22-26e(b) says in part that the department should work towards "ways to increase the percentage of consumer dollars spent on Connecticut-grown fresh produce and farm products, including, but not limited to, ways to increase the amount of money spent by residents of the state on locally-grown farm products, by 2020, to not less than 5% of all money spent by such residents on food." This is established in the As far as food security, the standard metric used is USDA's Household Food Security Measure. According to that, 12.3% of Connecticut residents are food insecure and 6.4% are very food insecure.

Interrogatory No. 3

With respect to DOA's comments regarding increased carbon footprint associated with distance food must travel to reach Connecticut, please provide an estimate of the increased carbon emissions associated with the need for food to travel to Connecticut if the Project is developed and the property that is the subject of this Petition is no longer in agricultural production.

Response

The comments from DoAG were not specific to the carbon foot print associated with the food system contributions of agriculture on the Simsbury fields subject to this proceeding, but rather that agricultural activity in Connecticut contributes to climate change mitigation and as an adaptation strategy.

Please compare the amount of increased carbon emissions estimated in the answer to Interrogatory Number 3 to the amount of carbon emissions that will be offset by the development of a 26.4 MW AC solar photovoltaic electric generating facility.

Response

DoAg has insufficient information to answer this interrogatory.

Interrogatory No. 5

With respect to DOA's comments regarding the economic impact to "retailers of farm equipment and supplies to feed and fertilizer dealers and tourism," please provide an estimate of that economic impact.

Response

The 2017 UConn Report, "Economic Impacts of Connecticut Agricultural Industry,
Update 2015," estimates that the Connecticut Agricultural Industry in 2015 contributed up to
\$4.05 billion to the state economy. Local food systems (such as provided by vegetable crops
produced on some fields in Simsbury) and agritourism (with multiple opportunities in Simsbury)
alone contributed \$90 million, and those systems continue to grow in importance statewide.
Farms and farmland in Simsbury are part of the agricultural community and economy.

Interrogatory No. 6

How many acres of locally important farmland soils are impacted by the Project that is the subject of this Petition?

Response

It is unknown. As of 8/24/2017 the Town of Simsbury has not requested Locally Important Farmland Soils designations which are determined in consultation with USDA Natural Resources Conservation Service.

Interrogatory No. 7

On p. 2 of its comments, DOA states that having land "remain available for a variety of agricultural uses" "could provide substantially better soil health for agricultural production." Please elaborate as to whether this better soil health will occur without the addition of soil amendments such as fertilizer and/or the application of pesticides and herbicides.

Response

The Department of Agriculture's statement speaks for itself. Soil health is a function of inherent soil properties and dynamic soil properties managed for specific ecosystem functions and values, goods and services.

Interrogatory No. 8

On p. 3 of its comments, DOA states that "the soils on the Simsbury property have variable thicknesses of topsoil, subsoil and substratum with unique physical and chemical properties." Please describe with specificity the unique physical and chemical properties of the soil on the property that is the subject of this Petition.

Response

The components of the soil map units, typifying pedon descriptions, range of characteristics of the soil series, and special features symbols for the soil polygon features displayed on the soil map can be found in the Soil Survey of Connecticut. The most up-to date Soil Series Descriptions can be found at the USDA NRCS Official Series Description Website at: https://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/home/?cid=nrcs142p2_053587.

More specific details on the soil classification, range of characteristics by soil series, soil profiles, physical and chemical properties, and percent components of soils should be mapped by the applicant if more detailed information is needed for planning.

Interrogatory No. 9

On p. 4 of its comments, DOA states that "a lack of managing soil nutrients over 25 years will result in acidification and loss of fertility" of the subject soil. What is meant by the term "managing soil nutrients?"

Response

Management of soil nutrients involves testing levels to identify and monitor levels and availability, and applying nutrients for specific crops under an agriculturally specific management regime if needed. It may involve foliar testing of plant tissue as well.

Interrogatory No. 10

Is it DOA's contention that the only way to keep this subject soil fertile and properly pH balanced is through the use of "managing soil nutrients?"

Response

DoAg does not have sufficient information to answer this interrogatory. Generally, in an agroecosystem, soil fertility, including pH, needs to be monitored, and nutrients managed to meet crop and animal needs and sustain soil health and other goals. The nutrients may come from a variety of sources and techniques.

Interrogatory No. 11

If the answer to Interrogatory Number 10 is yes, please provide a detailed description of the soil management activities that would be necessary to keep the subject soil fertile and properly pH balanced. If the answer to Interrogatory Number 10 is no, please describe in detail activities other than "managing soil nutrients" that would provide these same results.

Response

An identified farmer or farming enterprise or goals have not been established, so no soil management activities can be recommended to the hypothetical question.

Interrogatory No. 12

On lines 538-549 of the Pre-Filed Testimony of Kipen (Kip) Kolesinskas ("PFT"), the PFT states that "soil health is a function of assessing and managing dynamic soil properties for a particular use," and that the current use of the property is agricultural development. Please describe all activities that are currently being taken by users of the property to assess and manage the "dynamic soil properties" at the property that is the subject of this Petition.

Response

DOA currently lacks the information necessary to answer this Interrogatory.

Interrogatory No. 13

Please describe Mr. Kolesinskas's experience in constructing solar photovoltaic facilities on agricultural land. Please describe Mr. Kolesinskas's experience in constructing any structures on agricultural lands.

Response

Mr. Kolesinskas has never personally constructed a solar photovoltaic facility on agricultural land; nor has he personally constructed any structures on agricultural lands. Mr. Kolesinskas has provided information to persons constructing structures on agricultural land and on the impacts of such construction on such land, including reviewing E & S Plans, as one of his

responsibilities as a USDA Soil Scientist as well as currently as a consultant working with the CT Department of Agriculture and UConn Extension.

Interrogatory No. 14

Did the construction of five barns on the subject property adversely impact the prime farmland located underneath the barns? If so, please describe in detail what adverse impacts were caused and how those adverse impacts came to be caused.

Response

DOA currently lacks the information necessary to answer this Interrogatory; however, tobacco barns are a necessary part of the agricultural enterprise that has taken place on the farmland. Solar panels would seek to replace agricultural activity.

Interrogatory No. 15

On lines 434-441 of the PFT, concerns over soil erosion from the Project are raised. How will the soil erosion from the Project (if the Project is approved) differ from the soil erosion that will result from agricultural activities at the site? For the agricultural activities portion of this analysis, please describe how the potential for erosion will differ during periods when the site is under agricultural cultivation versus when the site is not planted.

Response

DOA is unable to answer this question, since the Petition lacks details as to how construction will proceed, and the proponents of the Petition were unable, during their testimony on September 12, 2017, to answer many key questions as to how construction will proceed.

Refer to lines 470-484 of the PFT. Who currently decides if the subject property is too wet to drive on soils with tractors and other agricultural equipment? Is such activity regulated by the DOA? If so, how is such regulation achieved?

Response

DOA currently lacks the information necessary to answer the first question in this Interrogatory. The answer to the second question is no.

Interrogatory No. 17

How many acres of prime farmland currently exist in the state of Connecticut? Please provide your sources documenting such acreage.

Response

The USDA Natural Resources Conservation Service- CT May 2013 publication

Agricultural Land Evaluation Site Assessment System lists 468,755 acres of Prime Farmland

Soils, or 14.6% of CT soils. A more recent publication is not currently available.

Interrogatory No. 18

Please refer to lines 631-649 of the PFT. Please describe all "large scale specialty crops" or "forage crop production" that have been grown on the property that is the subject of this Petition for the last five years.

Response

DOA currently lacks the information necessary to answer this Interrogatory.

Interrogatory No. 18 [sic]

Please refer to lines 631-649 of the PFT. Who is the current lessee of the property that is the subject of this Petition? Please describe the efforts of the current lessee "to find comparable"

acreage," the failure of which will either "put that business in jeopardy" or result "in the current lessee out-competing other farmers for a dwindling land base."

Response

DOA currently lacks the information necessary to answer this Interrogatory.

Interrogatory No. 19

If the current landowner of the property that is subject to the Petition sells the property to a third party, and the third party no longer wishes to lease the property for agricultural production, how would such a situation differ from the situation described in lines 631-649 of the PFT?

Response

This Interrogatory does not give sufficient context to answer the hypothetical question it poses.

Interrogatory No. 20

Please refer to lines 662-666 of the PFT. Please identify the types and amounts of all foodstuffs grown on the property that is the subject of this Petition for the last five years.

Response

DOA currently lacks the information necessary to answer this Interrogatory.

<u>Interrogatory No. 21</u>

ct.gov/sites/simsburyct/files/file/file/special areas ref.pdf, and is attached as Exhibit A hereto. Assuming that the Town of Simsbury is successful in developing the Northern Gateway as articulated in the POCD, please articulate how the impacts to the subject property associated with such development differ from the impacts of the Project proposed in this Petition. Please discuss the impacts of such development on both prime farmland and on agriculture in general.

Response

DOA objects to this Interrogatory because it is based on Simsbury's 2007 POCD, which Simsbury is in the process of replacing with the 2017 POCD. Questions concerning the Town of Simsbury's POCD would be better directed to them.

Interrogatory No. 22

Please refer to the Economic Development section of the POCD (starting on p. 125) and the map entitled "Economic Development Plan," which can be found at: https://www.simsbury-ct.gov/sites/simsburyct/files/file/file/economic_development.pdf, and is attached as Exhibit B hereto. Assuming that the industrially-zoned area of the map labeled "North End" is developed for an industrial/commercial purpose, please articulate how the impacts to the subject property associated with such development differ from the impacts of the Project proposed in this Petition. Please discuss the impacts of such development on both prime farmland and on agriculture in general.

Response

Please see the response to Interrogatory No. 21.

Interrogatory No. 23

Please refer to Exhibit B of the Petition, and to the figure labeled "As-of-Right Concept Plan" which is included in Exhibit B. Assuming that the area is developed as provided for in that

drawing, please articulate how the impacts to the subject property associated with such development differ from the impacts of the Project proposed in this Petition. Please discuss the impacts of such development on both prime farmland and on agriculture in general.

Response

This Interrogatory does not give sufficient context to answer the hypothetical question it poses.

Interrogatory No. 24

Please provide all mechanisms by which DOA can forbid, prohibit or limit industrial, commercial and/or residential development on prime farmland, statewide important farmland and/or on locally important farmland.

Response

Agriculture is a commercial activity, as defined under C.G.S. 1-1(q). In cases where DoAg has purchased development rights, there may be deed restrictions put in effect.

Additionally, Public Act 17-218 gives the department standing after the effective date of the act, before the Connecticut Siting Council for projects that affect prime farmland soils.

Interrogatory No. 25

Please provide all mechanisms by which DOA can forbid, prohibit or limit property owners from failing to put prime farmland, statewide important farmland and/or on [sic] locally important farmland into agricultural use.

Response

None.

Please provide all mechanisms by which DOA can require active soil management on prime farmland, statewide important farmland and/or on locally important farmland.

Response

Oversight of soil management is required on farms owned or under stewardship of the DoAg, and farms protected with a conservation easement through the Farmland Preservation Program. For farms in the Farmland Preservation Program a combination of easement terms, and a Conservation Plan developed in consultation with the farmer and USDA NRCS define soil management.

Interrogatory No. 27

Please refer to lines 350-355 of the PFT, which discusses farmland of statewide importance. Are any of the soil map units assigned this designation also designated Potentially Highly Erodible Lands (PHEL)? Are there other soil map units not designated as Prime Farmland or Other farmland of Statewide Importance mapped in the active farmland portion of the site that are classified as PHEL?

Response

There are soil map units on the parcels with the USDA NRCS CT designation of Potentially Highly Erodible Land (PHEL). The key word is "Potentially", the actual soil textures, slope, slope length, crop, tillage techniques, and vegetative management and use of conservation practices information are needed to populate the erosion prediction model used for conservation planning and to determine the actual erosion threat and Highly Erodible Land determination. An onsite investigation and information from the farmer is typically needed to determine HEL.

Has Mr. Kolesinskas or DOA observed any areas on the property that is the subject of this Petition where accelerated soil erosion may have occurred? If so, is conventional tillage always the best method of managing these soil units?

Response

Mr. Kolesinskas was provided only limited time and access to the parcel and was not on site to investigate any potential erosion. There is insufficient information provided to DoAg to answer the second question listed.

Interrogatory No. 29

In the NRCS Custom Soil Resource Report submitted in the Petition, several of the named soil series in the map units found in the active farmland are described as excessively drained or somewhat excessively drained and as having very low or low available water holding capacities. Is supplemental irrigation generally a requirement for these soils to maintain optimum productivity? If so, please explain why.

Response

See answer to the second question in interrogatory #28.

Interrogatory No. 30

Please estimate the quantities of water (in gallons per day) that would be need [sic] to be skimmed from cold water tributaries to the Farmington River to support crop production during typical summer months? How might these withdrawals impact in-stream habitats?

Response

This Interrogatory does not provide sufficient context to answer it

Please refer to lines 443-449 of the PFT, which states that soil compaction can be a major problem in maintaining soil productivity [tilth]. Do routine farming operations such as tillage and traffic by crop harvesting equipment lead to soil compaction? If so, how are these effects mitigated?

Response

The threat of compaction is determined by many factors, including tillage practices, equipment size, weight, and tire type, equipment passes, as well as soil texture, structure, OM levels, vegetation, and soil moisture at the time of use and management. Some compaction may be what would be considered "topsoil compaction", which may be mitigated by reduced tillage, increased OM, residue and vegetation management, timing of soil operations, equipment changes, reduced trafficking, reduced load weights, etc. Deep subsoil compaction is more resistant, and may become permanent.

Interrogatory No. 32

When Mr. Kolesinskas visited the site on August 14, 2017, did he observe unimproved perimeter and interior farm roads/cart paths providing access around and through the active farm fields? Does DOA anticipate that the soils beneath these features have been compacted?

Response

Mr. Kolesinskas did observe farm access roads though a field as well as perimeter farm roads. There is insufficient information by which to determine whether and to what extent these soils have been compacted.

Interrogatory No. 33

Is there a relationship between ground pressure exerted by equipment travelling across a soils surface on soil compaction? In general, would greater ground pressure be exerted by

rubber-tired equipment such as a farm tractor, loaded farm cart, or pickup truck or tracked construction equipment?

Response

There is insufficient information available about the subject site's soil condition. Ground pressure from equipment is just one of the variables that impact soil compaction. There are too many variables and not enough relevant facts provided to respond to the hypothetical question.

Interrogatory No. 34

In the absence of tillage, can permanent cover provided by grasses and forbs work to reverse the effects of soil compaction over time?

Response

There is insufficient information available about the subject site's soil condition. Grasses and forbs can help reduce topsoil compaction. The severity of the compaction as well as other variables, would determine the effectiveness. The management of the grasses and forbs, such as repeated mowing when soils have high moisture may negate some of the benefits. Grasses and forbs will have less impact if there is deep subsoil compaction.

Interrogatory No. 35

Please refer to lines 523-536 of the PFT in which it is stated that vegetative management in permanent cover "will not be beneficial for soil health for future agricultural use." Please comment upon the findings. Is DOA aware of publications reporting the benefits using cover crops to lessen the impacts of tobacco production on the biological, physical, and chemical properties of an agricultural soil, such as the article found at:

http://www.southeastfarmpress.com/tobacco/tobacco-s-history-poses-unique-soil-conservation-challenges?

Response

DOA objects to the first part of this Interrogatory, as it misstates what was said in the PFT. As to the second question, DOAG is aware of many publications and research on the benefits of cover crops. Connecticut tobacco farmers have a long history of using cover crops and crop rotations to manage plant and soil health. No information has been provided to know the cropping history or management on the current Simsbury field in tobacco production.

Interrogatory No. 36

Please provide the name and employer if every individual who prepared or assisted in the preparation of the responses to these interrogatories.

Response

From DOA, Jason Bowsza, Stephen Anderson, Kip Kolesinskas, and Steven Reviczky, in consultation with counsel.

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Certification of Service

I, Jason E. Bowsza hereby certify that a copy of the foregoing Department of Agriculture's Responses to DWW Solar II, LLC's First Set of Interrogatories was sent on October 6, 2017, by e-mail and by first class mail, postage prepaid to the following parties on the Service List in this matter:

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