Written Testimony of the Connecticut Siting Council
Submitted to the Energy and Technology Committee

In Reference to Raised Bill No. 943
An Act Concerning the Installation of Certain Solar Facilities on Productive Farmlands
March 6, 2017

Good afternoon Senator Kennedy and Senator Minor, Representative Demicco, ranking and distinguished members of the Environment Committee. Thank you for the opportunity to provide testimony in connection with Raised Bill No. 943.

This bill proposes to discourage the use of prime farmlands and forest lands as locations for the siting of solar facilities with a generating capacity of two or more megawatts. The Connecticut Siting Council (Council) has jurisdiction over the construction, operation and maintenance of electric generating facilities utilizing renewable energy sources with a generating capacity of more than 1 megawatt. Connecticut's Energy Policy includes the development and utilization of renewable energy sources to the maximum practicable extent. Renewable energy sources include, but are not limited to, solar.[1] This bill applies only to solar, placing it at a disadvantage in comparison to other renewable energy sources, and impacts property rights, the economy, policies, the environment and electric system reliability.

Property Right Impacts: Although the title of the bill references "productive farmlands," Section 2 references the broad, soils-based USDA definition of "prime farmland" - Land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is also available for these uses.[2] Land zoned industrial, commercial or residential throughout the state meets the USDA definition of prime farmland. It appears from the text of Section 2 that owners of land that meets the USDA definition of prime farmland, regardless of the zoning designation of the land, would be prohibited from developing solar facilities with a capacity of two or more megawatts on their property unless the landowner proves the land is not prime farmland under the USDA definition rebuts the presumption that solar facilities on prime farmland are not environmentally compatible with evidence that the solar facility would not materially affect the status of their land as prime farmland. A net metering solar facility with a generating capacity of two megawatts or more installed at a manufacturing facility on land zoned industrial, but on USDA-defined prime farmland would appear to be prohibited by this bill. The only exception is for an agricultural virtual net metering facility, which references one of the many state statutory definitions of "agriculture" rather than the USDA definition of "prime farmland."[3]

Economic and Policy Impacts: Agriculture is an economic resource.[4] The USDA found a nationwide average of 6% of farm expenses relating directly to energy use.[5] Solar projects could supply or supplement farm energy requirements. The state Comprehensive Energy Strategy (CES) is an

[1] Conn. Gen. Stat. §16-1 (20) (2016) ("Class I renewable energy source" means… electricity derived from (i) solar power, (ii) wind power, (iii) a fuel cell, (iv) geothermal, (v) landfill methane gas, anaerobic digestion or other biogas derived from biological sources, (vi) thermal electric direct energy conversion…, (vii) ocean thermal power, (viii) wave or tidal power, (ix) low emission advanced renewable energy conversion technologies, (x) a run-of-the-river hydropower facility that… of not more than thirty megawatts, or (xi) a biomass facility…")

[2] Soil Survey Manual, USDA Handbook No. 18, October 1993.

[3] Conn. Gen. Stat. §16-244u (2016)(Class I renewable energy source, agriculture under §1-1q, $\leq$ 3 megawatts)

[4] Red Hill Coalition, Inc. v. Town Plan & Zoning Com., 212 Conn. 727 (1989) (If the legislature desired to include agricultural land as a natural resource, it would have explicitly so provided).

[5] U.S. Department of Agriculture, Solar Energy Use in U.S. Agriculture Overview and Policy Issues, April 2011

assessment of all residential, commercial and industrial energy issues that is prepared every three years and developed through an open, collaborative stakeholder process to identify opportunities for securing cheaper, cleaner, more reliable energy options. The CES recommends program funding to be dedicated in part to developing additional programs to capture process energy savings that are tailored to the needs of specific industries, including agriculture. Passage of this bill may have the effect of precluding development and implementation of existing policy programs, such as the Low and Zero Emissions Renewable Energy Credit Program and Shared Solar Program, as well as any new policy programs designed to capture process energy savings in all economic sectors, including the agricultural sector.[6]

Environmental Impacts: Agricultural operations are exempt from nuisance laws due to odor, noise, dust, chemicals and water pollution, and are permitted uses in wetlands and watercourses as of right.[7] The USDA notes that solar energy use can substitute for more traditional energy sources used in farming operations, such as gasoline, diesel and liquefied petroleum. Energy use has a direct correlation to carbon dioxide emissions. Emissions are influenced by the type of energy used for agricultural production. Utilization of solar energy for agricultural production would reduce these emissions. To date, calculated carbon dioxide emissions savings from solar projects approved by the Council amount to approximately 109,278 metric tons of carbon dioxide emissions avoided per year. Pursuant to the state's Global Warming Solutions Act, emissions are to be reduced to a level at least 10% below 1990 levels by 2020. Passage of this bill would thwart the goals of the Global Warming Solutions Act.

Electric System Reliability Impacts: Section 6 of this bill requires a report on properties other than prime farmlands and forest lands that are suitable for construction of solar projects with a capacity of two or more megawatts, including right-of-ways occupied by overhead transmission facilities. Transmission line right-of-ways are typically not owned by utilities; right-of-ways represent access and maintenance rights held by the utilities over privately owned property for the purpose of transmitting electricity and are exclusive of other uses. Installation of a generating facility in the transmission line right-of-ways would likely result in electric faults on the system. This could lead to cascading effects on other system elements and jeopardize electric reliability in violation of federal and regional electric reliability standards.

In summary, Raised Bill No. 943 applies only to solar, placing it at a disadvantage in comparison to other renewable energy sources with impacts on property rights, economics, policies, the environment and electric system reliability. In lieu of passage of Raised Bill No. 943, the Council respectfully recommends consideration of **Raised Bill No. 6547,** which proposes development of a "**Connecticut Green Plan and Resource Use Inventory for Energy Infrastructure**," which, if passed, would determine the best practices for placement of energy infrastructure, including, but not limited to, solar facilities.

Thank you again for the opportunity to provide testimony on this proposal. Should you have any questions or seek additional information, please feel free to contact Melanie Bachman at the Council's office at 860-827-2951 or Melanie.Bachman@ct.gov.

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[6] It is unclear whether the exemption in this bill would only apply to existing agricultural virtual net metering facilities or all agricultural virtual net metering facilities and the inclusion of this exemption for **some** facilities on prime farmland appears to be contradictory to the intent and purpose of the entire bill.

[7] Conn. Gen. Stat. §19a-341 (2016); Conn. Gen. Stat. §22a-40 (2016).