

I am writing to point out that the provision in the Draft Land Use Guideline limiting the size of dual-cropping agricultural PV units to 200% of onsite power use on farmland with APR status is a grave error.

1. The effect of the this draft regulation, if not changed, will serve to undermine the willingness of farmers to apply for APR status. If this limit on agricultural PV is imposed, farmers will be forced to forgo substantial farm income from agricultural PV units even if they are or would be in compliance with Agricultural PV guidelines for prime agricultural land.

Adoption of this draft regulations limiting dual-use systems that comply with the detailed agricultural PV guideline for prime farm land will discourage farmers from seeking APR status and therefore make it more likely to convert farmland to non-farm use.

2. The agricultural PV guidelines for PV on prime farmland is based on protecting the agricultural viability of the land by maintaining agricultural productivity and the protecting soil, while allowing the farmer to produce both food and energy and to sell both food and energy to customers. For example, an agricultural PV community solar system could sell both food and energy to farm stand customers and farm CSA members.

3. The 200% restriction on PV output was based on conventional ground based PV systems that do interfere with agricultural productivity and soil health. The agricultural PV guidelines are based on the test plots and research conducted by Prof Stephen Herbert of the Stockbridge Institute using agricultural PV on poles that are the basis for the detailed guidelines for agricultural PV under SMART.

4. The Agricultural PV guidelines under SMART provide comprehensive and detailed guidelines for maintaining agricultural productivity in the (d) Special Provisions for Agricultural Solar Tariff Generation Units, and **Additional Provisions for Agricultural Solar Tariff Generation Units**.

These guidelines require the highest standards based on agricultural science for dual-cropping systems.

5. The procedures for agricultural PV used by my company include review by Prof, Stephen Herbert of design and placement of dual-cropping systems to assure agricultural viability and productivity based on his scientific judgment. <http://www.dual-cropping.com/>

6. The economic effect on APR farms by insisting on severe limits on APR agricultural PV can be dire. For example. I just visited a 90 acre farm with

substantial pasture areas perfect for dual-cropping installation. Local zoning permitted 250 kw PV on a parcel. The farm by chance had three parcels and therefor eligible for 750 kw dual-cropping.

A lease agreement for the farmer would provide an estimated \$432,000 of farm income over 20 years from dual cropping with community solar. The farmland had APR status. By limiting agricultural PV because of APR to an estimated 50 kw would deprive this farm of \$401,000 in come. This can clearly make the difference between developing a financially stable farm and financial failure. This farm was purchased because it was a failed bankrupt APR farm.

Agricultural PV dual-cropping in accord with a reasonable 2 megawatt limit is an essential step to support farm income and preserve agricultural land. To stop APR land from taking advantage of normal agricultural PV installations undermines the purpose of the SMART agricultural PV initiative which was designed to facilitate dual-use that maintained agricultural viability and productivity on prime farmland.

6. The purpose of the agricultural PV program is to facilitate dual-cropping under tight agricultural rules, not to limit the ability of APR farms to add a crucial energy crop to there agricultural activities.

7. The guidelines limit agricultural PV on prime farmland to 2 MW. This is about 18 acres pasture or row cup land using PV on properly spaced poles. This is a reasonable limit and should be the standard applied to APR land for agricultural PV. The 200% limit should only be applied to PV not following the detailed agricultural PV rules.

Roy Morrison
President, Roy Morrison & Associates, LLC
603-496-4260 9NH cell, I live in Newton)

Roy Morrison
81 Jewett St.
Newton MA 02458

Roy Morrison
roy.morrison114@yahoo.com
www.EcoCivilization.info
603-496-4260
P.O. Box 36
Newton, Ma 02456