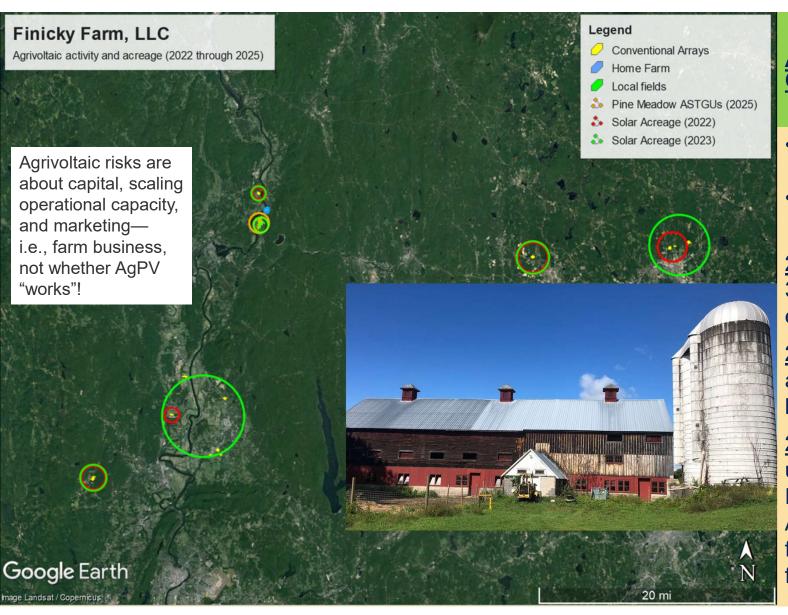
AGRIVOLTAICS: OUR STORY



Sustainably growing food since 1998. Transitioning to the second generation. Specializing in agrivoltaics to fight the climate crisis.





Agricultural, Family & Conservation Goals

- Transition land to more regenerative farming
- Support renewable energy

2021: 2 arrays, 25 acres, 30 ewes, <0.5 FTE evenings and weekend

2023: 11 arrays, 175 acres, 90 ewes, ~120 lambs, 1+ FTE

2024-2025: 225+ acres under management, 1-2+ FTE, hay production, ASTGU construction, prep for initial vegetable and fruit crops

Watch us farm on Instagram & Facebook:
@finickygrazing









SOLAR IS GOOD— "JUST NOT THERE!"

- 20 years of Massachusetts solar incentive programs
- Currently ~3.8 GW of solar
- 2050 goal of ~20 GW

We need groundmount solar!

Agrivoltaics or clearcuts?

ALL MASSACHUSETTS SOLAR PROJECTS (SMART, RPS1 & 2 & Carveouts)

PROJECTS BY SIZE (KWDC)		COUNT	SUM (MWDC)	% COUNT	% SUM MWDC	AV	G \$/W	COUNT	SUM (MWDC)	% COUNT	% SUM MWDC	AV	G \$/W		
	0	-	9.999	98,952	609	73%	16%	\$	4.31	130,916	1,013	97%	27%	¢	4.21
	10	·	24.999	31,964	404	24%	11%	\$	3.91				2770	7	4.21
	25	-	249.999	2,101	189	2%	5%	\$	3.16						
_	250	_	199 999	478	165	0%	1%	\$	2.69	2 275	959	2%	25%	ċ	2.97
	500		999.999	485	334	0%	9%	\$	2.65	3,275	959	270	25%	P	2.97
	1000	-	1499.999	211	270	0%	7%	\$	2.47						
	1500	+		470	1,845	0%	48%	\$	2.39	470	1,845	0%	48%	\$	2.39
GRAND TOTAL		134,661	3,816	100%	100%	\$	4.18	134,661	3,816	100%	100%	\$	4.18		

MASSACHUSETTS NEEDS RESPONSIBLE, SUSTAINABLE, LARGE-SCALE GROUND-MOUNTED ARRAYS TO MEET ENERGY GOALS!

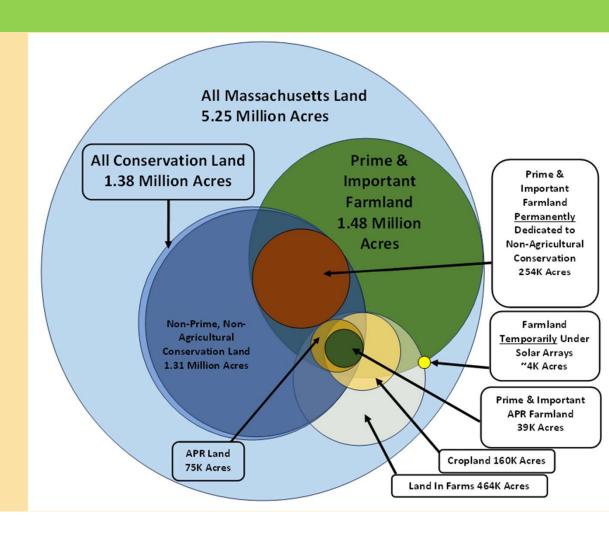
<499.999 kW	133,495	1,367	99%	36%	\$ 4.19
500+ kW	1,166	2,449	1%	64%	\$ 2.39

Over the past 20 years small solar projects have required >100X more projects (and decisionmakers and decisions!) to achieve ~1/3 the generation capacity at nearly 2X the cost.

MASSACHUSETTS FARMLAND

FOOD SECURITY RISKS FROM SOLAR? NOT REALLY.

- ~6X MORE PRIME & IMPORTANT
 FARMLAND CONSERVED FOR NON-FARM
 PURPOSES THAN FOR FARMING.
- ~40X MORE NON-FARM CONSERVATION LAND THAN ALL FARMLAND IMPACTED BY SOLAR.
- AGRIVOLTAICS PROTECT THE LAND FOR CONTINUED AGRICULTURAL USE.





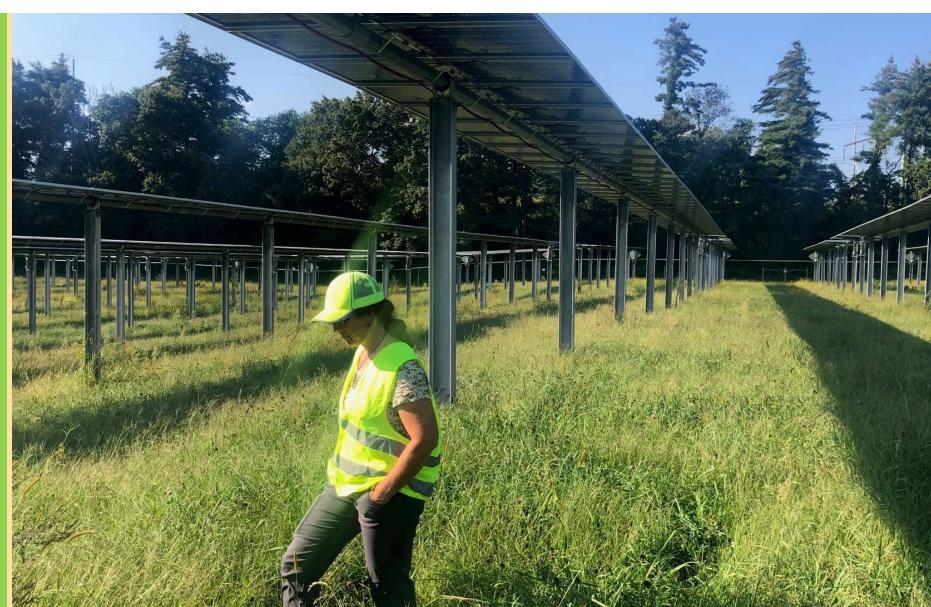
Burgundy Brook Farm Palmer

- Beef cattle and hay production
- Same landowner & farmer, same agricultural uses
- 30' fence clearances allow equipment turns, etc
- Operating agreement allows farmer to make future changes

BLUEWAVE











Czajkowski Farm Hadley

- Well-established vegetable grower (organic & conventional)
- Sandy section of field
- 2.2 acres
- 460 kW DC
- Developer/builder: Hyperion Systems (Jake Marley)

WHY NORTHFIELD?

- 1. WILLING LANDOWNERS WITH GOOD FARMLAND
- 2. VIABLE SOLAR PERMITTING & INTERCONNECTION
- 3. SUPPORTIVE, FARM-FRIENDLY ZONING
 - Right to Farm Bylaw
 - Broader definition than farm exemption under the Massachusetts Zoning Law (MGL Ch. 40A, §3)
 - Zoning allows "Agriculturally related uses on a farm" (§200-9.5)

	Table 1. Schedule of Uses				
	RA	RAF			
A. Agriculture, Conservation, Recreation Uses					
Agriculture	Y	Υ			
Agriculturally related uses on a farm (§ 200-9.5)	Y	Y			
Greenhouse	Y	Υ			
Conservation, wildlife preserve	Y	Υ			
Camp for children and youth, day or overnight	PB	PB			
Campground	PB	PB			
Boathouse, ski tow, golf course, driving range	SP	SP			
	2.2	22			



AGRIVOLTAICS ARE AGRICULTURE

- Agriculture is exempt from special permit requirements and cannot be prohibited or unreasonably regulated. (MGL c. 40A, §3)
- Agrivoltaics are required to be treated as agriculture for zoning. (MGL c. 61A, §2A (d)): "Renewable energy generating sources located on land used primarily and directly for agricultural purposes ... shall be subject to the provisions afforded to land used for agriculture under section 3 of chapter 40A."
- Northfield's zoning bylaw specifically permits all uses "protected or exempt pursuant to MGL c. 40A, §3, or other state law" thus recognizing the authority of other state laws (including 61A) to restrict zoning.
- At §200-9.5, Northfield's zoning bylaw specifically recognizes and allows additional agriculturallyrelated uses on a farm in addition to those exempted under 40A, §3.







ecode360.com/print/NO3951?quid=34209420

§ 200-5.3. Permitted in all districts.

The following uses are permitted in all districts:

- A. Federal government use.
- B. State government uses to the extent that this Zoning Bylaw would prohibit the exercise of an essential government function. [Amended 1-24-2022 STM by Art. 16]
- Uses to the extent protected or exempt pursuant to MGL c. 40A, § 3, or other state law.

§ 200-5.4. Schedule of Uses.

[Amended 12-10-2018 STM by Art. 3]

Table 1 Legend:

- Y: Permitted by right
- N: Prohibited use
- SP: Allowed by special permit from the Zoning Board of Appeals
- PB: Allowed by special permit from the Planning Board

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Boathouse, ski tow, golf course, driving range	SP	SP		
Recreation-affiliated business (§ 200-9.6)	N	N		

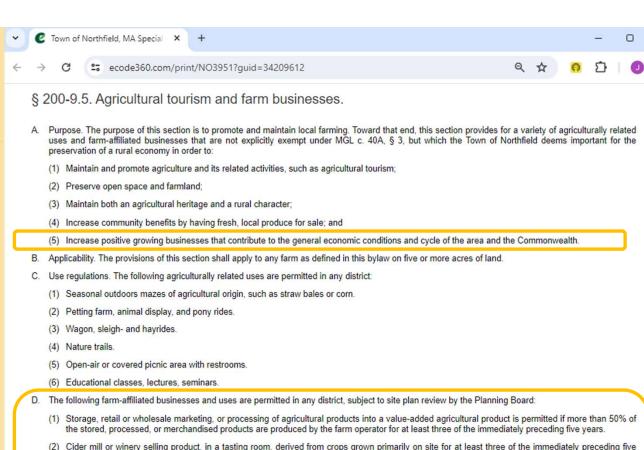
§200-9.5: FARM BUSINESSES

"The purpose of this section is to promote and maintain local farming [by allowing] a variety of agriculturally related uses and farm-affiliated businesses that are not explicitly exempt under MGL c. 40A, § 3, but which the Town of Northfield deems important for the preservation of a rural economy"

ALLOWED IN ANY DISTRICT WITH SITE PLAN REVIEW (NO SPECIAL PERMIT):

- Value-added processing
- Commercial kitchen, cannery or copacking facility
- Parking for 20 or more vehicles
- Gift shop for the sale of agricultural products and agriculturally related products





- (2) Cider mill or winery selling product, in a tasting room, derived from crops grown primarily on site for at least three of the immediately preceding five years.
- (3) Historical agricultural exhibits.
- (4) Gift shop for the sale of agricultural products and agriculturally related products.
- (5) Designated parking for 20 or more vehicles.
- (6) Commercial or cooperative kitchen, cannery, or copacking facility.
- E. The following uses are allowed only by special permit from the Planning Board:
 - (1) Bed-and-breakfast
 - (2) Restaurant related to the agricultural use on the site.
 - (3) Non-agriculturally related uses, such as small-scale entertainment venue or organized meeting space made available for rent for weddings, corporate picnics, birthday parties, and the like.

AGRIVOLTAICS COMPARED TO OTHER AGRICULTURAL BUSINESSES

- Less traffic
- Similar or less visual impact
- Similar or less environmental impact
- Similar or less noise impact



THE PROPOSED MORATORIUM IS:

- 1. **NOT URGENT** Nothing has changed since the first agrivoltaic proposals.
- 2. <u>UNREASONABLE</u> Agrivoltaics are consistent with Northfield's existing farm-support zoning in terms of impacts and policy priorities.
- 3. <u>UNFAIR</u> The moratorium seeks to prevent construction of permitted projects.
- **4. AESTHETIC NIMBYISM** No significant health, safety or public welfare concerns have been raised.
- 5. FRIVOLOUS AND WASTEFUL It will be overturned, but will cost tax \$\$.
- 6. ON THE WRONG SIDE OF HISTORY 50 years from now, will Northfield by recognized as a leader in the fight against climate change? Will you?

