

WHAT'S YOUR BIGGEST, BOLDEST ASPIRATION FOR AGRIVOLTAICS IN THIS SECTOR?

Academia & Research

- Collaborate with private sector on projects (hit me up! claire@oneenergyrenewables.com)
- Research on economic impacts (communities, landowners etc)
- Case studies
- Research on how to support pollinators in agrivoltaics
- Research is vital to promote advantages of growing food and forage beneath panels. There are multiple universities perhaps which would contribute and conduct projects at sites throughout our nation
- Land screening tool for “right sizing” AV solution → highest land use framework
- How to minimize bird mortality at solar installations
- Every farm and ranch is a large science project. Every farm and ranch is researching and developing solutions. Youths need mentorship programs accessible to them in every grade level. Engage, engage, engage. The future of innovation is out there
- Reaching out to youths at risk
- Collate existing research to look for patterns (w/minimal cost)
- Data repository!
- MSU
- More connections at all steps of the agrivoltaic project, developer, EPC, O and M and long term management.
- Again, more money for research and technical assistance on these issues
- Establish pilot demo projects in every state. Farmers need show and tell to show it works, and do not need to travel 3 states away to see it
- This is where it all begins. But my hope is that they find a way to recycle, reuse, etc on these solar projects. Or all renewable energy projects. Instead of burying, dumping, whatever these materials are

Energy

- Every roof with a rooftop solar garden & pollinators
- Stop exploding things for energy
- Educate policymakers - 1-pagers about why electricity costs are rising etc.
- Cattlevoltaics
- Penalize projects that don't offer dual-use solutions
- Integrating value of land stewardship
- Lets decentralize energy production, and diversify, via community solar and agrivoltaic production. Like Neighborhood Supported Agriculture (NSA) shares, we need NSAgrivoltaics
- Community solar
- Continue to carry the community benefits torch (even w/o federal incentives)
- Community-owned solar sites

- Levelized cost of energy
- More solar developers adopt some kind of dual use/ conservation mindset when putting up a new project
- Innovations to make it easier to integrate panels
- Encourage smaller but more projects, decreasing the perceived need to expand the already too large and too rundown transmission grid.
- I would hope the developers do focus more on relationship building. But also if they are going to put solar energy in then they should HAVE to have a dual purpose. As well as a plan to bring that land back into ag production at the end of its life cycle.

Land Conservation

- Move easement integration/definitions
- Wildlife permeable fencing
- Conservation easements are more accepting of agrivoltaics.
- No fencing, and allowing for the natural movement of wildlife in critical habitats.
- Incentives are greater for those who integrate novel and innovative production models
- Eliminate solar construction that takes away topsoil, destroys existing vegetation, and compacts the soil.
- This must be the utmost important piece. Working with local conservation districts to ensure that land conservation is at top of the mind in every step

Government

- Love
- Empower development through zoning / regulatory changes
- More capacity for local govts to updates codes, regs
- Recognition of the need
- Fund education for government officials so they know/learn about electricity and energy
- Demonstrate to municipalities how sustainable energy production can be promoted in small towns as well as urban areas. This requires and may help DRIVE land use zoning, serving as exemplars for farms and neighboring towns
- Set aside reliable funding for research & education
- Required CPW consultation
- Require dual-use on ag-lands
- More productive civic engagement
- Respect private property rights
- Greater collaboration
- Colorado is the leader in supporting and guiding agrivoltaics
- Requiring ecovoltaic principles
- BLM requiring agri/eco-voltaic projects on western lands
- Predictable permitting
- State-level agrivoltaic tax credits
- When aligned with health and environmental goals
- More financial and technical support at all levels, national, state and county for agrivoltaics projects

- Policy stays relevant and updates to suit needs of new production models
- The Government stops changing policy with new administrations every 4 years, and works for the farmers, rather than dictating to farmers. And stop encouraging the fertilizer and herbicide methods that destroy soil health.
- I think there could/should be government policy that if an energy developer is putting a solar array up that they have to find a way for dual land use and all the other things I said. But also if they have to pay a specific educational fee*. Money could be put in a pot for academia & research.

Agriculture

- Solar grown veggies!!
- High-value locally-grown crops (veggies)
- Collaboration for healthy food
- Lets produce energy while changing what farms, large and small, can grown. The shade regimes may diversify what crops can be grown. More forages enable cattle and sheep to have more access as well as perhaps to be paid for their foraging service
- Regenerative ag/crop rotating
- Solar Cows
- Rural development done right
- More landowner empowerment
- Young people wanting to farm
- Ditto! Involve youth
- Lower cost (LCOE) with similar performance of conventional PV systems that are applicable to farming and crop circle corners.
- More producer own projects/ producer adoption in Colorado, with more different kinds of crops across different areas across the state.
- More research on systems that work together
- It becomes the normal and required way to construct solar projects, and keeps more farmland in farming.
- I think there is a lot of trust issues from the past when it comes to working with developers. I just hope the conversation continues and people become more open minded

Other

- Landscape architects get asked to help make place sing
- EDUCATION; Educating the public at large about how farming and energy production can co-exist is VITAL to expanding agrivoltaics
- Construction, engineering companies need to hear how viable these projects can be
- Other stakeholders, including smaller growers who might not be able to afford land, need to be invited in.
- State reps and county commissioners who can promote policy, need to be educated
- Involving youth & students so they are ready to carry the torch

WHAT DOES AGRIVOLTAICS MEAN TO YOU?

- Love
- It's a synergistic coupling of solar production of energy for local residents and businesses with growing diverse food crops beneath panels. Often the solar arrays accommodate cow and sheep grazing where the shade enables enhanced weight gain. Agrivoltaics can provide unique opportunities to collaborate with growers with limited access to space, adding resiliency to food systems local to the farm. AV is a way to make energy and food production more sustainable, decentralized, and robust
- Vertical Bifacial PV for easy farming
- Co location of agriculture and solar energy, emphasis on the agriculture to ensure it is not green washing
- Allows for the potential of dual use, while gathering renewable energy and preserving vital habitat and working lands.
- Integration of energy production and food production
- prioritizing the agriculture side of any solar project, making it design priority #1, then photovoltaics can take its share so to speak
- A way to utilize land for multi use benefit

WHAT OTHER MECHANISMS EXIST - OUTSIDE OF SUBSIDIES - TO INCENTIVIZE AGRIVOLTAICS AT DIFFERENT LEVELS?

- Love
- Small agrivoltaic growers could be given a tax break for the first several years of operation, in exchange for energy provided to local residents and businesses. Counties could allow large energy consumers - greenhouse operators, for example - to receive tax credits for using energy provided by AV
- Former FSA Director Zach Ducheneaux started "5th C" as a solution to finance regenerative ag enabling producers to keep more of what they earn to potentially re-invest. It does mean loans, but they are structured for long-term repayment, with low interest
- Look at the community surrounding the proposed AV site, and invite them in as stakeholders and potential participants at the solar farm. Offer communal space to grow food to all businesses and residents purchasing E-shares
- Collaborate with land trusts to build unique contracts in the context of conservation easements which keep the land in decentralized food and energy production in perpetuity
- Stack value analysis, like I have done for the State of California (Joe McCabe, PE, energyideas@gmail.com)
- Wildlife, community values and livelihoods, and smarter land use
- Policies that flex zoning and land use
- Educating the public , farmers, and the "regular solar companies. Also putting in more smaller projects, and way less utility scale projects. Also more behind the meter solar projects.