How to address common concerns about solar energy

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Below are a few options of what to say when faced with a concern about solar farms:

Claim: Solar takes away productive farmland

Try saying:

- Agrivoltaics is the practice of co-locating solar and agriculture. Hosting sheep, pollinators and planting native crops are a few opportunities for using the land underneath solar panels. Sheep naturally maintain the vegetation so that mowing equipment doesn't need to be used.
- The same land can produce energy AND byproducts such as wool, grass-fed lamb meat, honey, wax, etc. Shepherds, beekeepers don't have to pay for more land, and in fact are getting paid to lease that land.
- Cash crop farming typically has 1 full-time position per 1k acres, farms with solar require 2 full-time positions per 1k acres, and there are a few more jobs created if sheep are added.
- The U.S. imports 80% of lamb and sheep from Australia and New Zealand, more sheep in NY supports local economies.
- Solar leases bring much higher revenue to landowners per acre than row crops do.
- Solar rests soil and land. Without plowing or using harsh chemicals for crops, solar builds soil health and sequesters carbon. Soil is healthier than ever by the time of decommissioning. This period (30 years) is even longer than the FSA's Conservation Reserve Program.

Claim: Why are we building solar farms upstate to power downstate?

Try saying:

- Upstate New York has the 3 ingredients that downstate lacks:
  - Open Land
  - Transmission Lines
  - Landowners who are willing and eager to lease their land
- It helps to think of solar as a new crop. Similar to providing milk, corn, wheat etc. to downstate communities, the same sun that allows those crops to grow is used for a different crop. Upstate agriculture provides corn for energy (ethanol) to downstate. Upstate farmers are NY's producers, cultivating solar energy is the new crop that we can make.

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Claim: Solar panels cannot be recycled

Try saying:

- Entire companies are dedicated to determining the best way to recycle solar panels (e.g., SEIA). Since life expectancy is 20-30 years for panels, these companies are ahead of the game and are able to predict the labor and technology need and will be ready. This is much more proactive than other industries, like the diesel-fueled car industry, that did not plan in advance.
- At this time, 99% of the solar panels are recyclable (including steel and concrete around the panels), leaving behind plastic materials the size of a ball left over that is not recyclable and will be incinerated. Because materials found in solar panels are commonly used materials, recycling individual components is commonplace.
- Also anticipating that solar panels can be repurposed for a second life - many developing nations would use old panels that are 70-75% of original efficiency.
- Salvage value greatly decreases the cost of decommissioning solar farms
- The increased need for solar recycler will grow over the next 30 years, resulting in jobs that will grow alongside this industry.

Claim: Solar developers are getting all of their money from subsidies but are not actually producing power.

Try saying:

- All energy suppliers receive subsidies. Fossil fuels are indeed subsidized by the US government. While there are subsidies to solar, wind and ethanol, they were until the late 2000s mere drops in the bucket compared to what fossil fuels get. Coal, oil, and natural gas received $5.9 trillion in subsidies in 2020 – or roughly $11 million every minute – according to a new analysis from the International Monetary Fund. https://www.imf.org/en/Publications/WP/Issues/2021/09/23/Still-Not-Getting-Energy-Prices-Right-A-Global-and-Country-Update-of-Fossil-Fuel-Subsidies-466004
- Many farms also receive subsidies.
- Subsidies were provided initially to jumpstart the solar industry but have declined over time to the point where upfront money is no longer provided. Investors are needed to fund the project, and they need to see projects effective so developers produce as much as they can.
- Subsidies are provided, but it goes back into communities through host community benefits.
- Some developers continue to maintain and operate their facilities, while others do not continue to operate the project after construction is completed. Rooftop, community, and grid scale solar are all connected to New York's grid once operational, and all produce power!

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Below are a few options of what to say when faced with a concern about solar farms:

Claim: Property value will decrease around solar farms and are an eyesore.

Try saying:

- Property value is often associated with the strength of the local economy, which a solar project can be expected to benefit by:
  - Increasing income to landowners who house the project
  - Bringing in jobs and workers during construction and therefore customers to local businesses
  - Community host benefits, which ends up contributing up to 10 times more per acre than what that farmland would pay in taxes to the community schools and organizations. Property value is largely impacted by the strength of the area's school districts.
  - Helps local school budgets that are in dire need of funding.Schools in districts of solar project directly benefit. Healthy, sustainable school budgets helps to maintain local property values by providing these essential benefits for homeowners.
- Regarding the Rhode Island paper - this is the one paper that did identify a 1.7% property value decrease within a mile of a solar project, though multiple other studies found that there was no change or even a positive change. This study found that it was impactful to suburban areas, which is not typically where solar projects are sited in New York State. Also, it compared numbers from 2005-2019, which is a period in time where market values varied dramatically across the country.
- Local agencies have done their own research on property value, and the differences in value are negligible.
- There are areas where $400,000 townhomes are being built next to solar farms, as there are people who want to live by solar!
- When done right with the proper setbacks, visual buffers, and screening, viewsheds should not be an issue for surrounding properties. Those concerned should ask for the developer to provide visual representations of property before building, or for a virtual or in person tour of an operating solar farm. It is important locals provide input to mitigate changes.
- When in discussion with the developer, towns should request they use local businesses as much as possible. For example, use local print shops for materials!
- Makes for a quieter neighbor than more homes - pollinators and sheep will be the primary inhabitants once operational, with developers only on site 3-4 times per year. The equipment will also have to be set back so the sound of the equipment is not heard by neighbors.
- Utility structures like dams used to be considered eye sores, but now are often tourist destinations - like the Mount Morris dam.

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Below are a few options of what to say when faced with a concern about solar farms:

Claim: PFAS from panels pollute the surrounding area

Try saying:

- PFAS (Per/Poly Fluoro-Alkyl Substances) are a class of chemical compounds with unique properties, especially known for their use as water repellent coatings. They do not break down over time and certain PFAS compounds have been linked with human health issues. Because of their toxicity, those high-risk PFAS compounds are banned from use and production.
- Pollinators and beehives have been thriving on solar projects for 11+ years in Europe. Pollinators are very sensitive to chemicals, and the decline of pollinators are proof of the impacts of herbicides and pesticides typically used. The amount of biodiversity at solar farms shows how non-toxic panels are- if panels were toxic, wildlife would not thrive.
- The DEC and other entities have extensive regulations on woodlands, wetlands, stormwater runoff, drinking water etc., if panels were to leak toxins, solar developers would be obligated to create substantial mitigation plans.
- Certain components of solar panels are commonly assumed to be made with PFAS; however they are made using non-hazardous alternatives. Check out this article to learn more about the make-up of solar panels: http://graham.umich.edu/media/pubs/Facts-about-solar-panels--PFAS-contamination-47485.pdf

Claim: Battery Storage is dangerous

Try saying:

- Batteries are safe, but if local fire departments are unsure then it is important that the town asks the developer to educate and train on safety responses. There is an agency called the Energy Safety Response Group that is familiar with fire departments and how to support them with this.
- Most batteries are lithium ion, the same kind of batteries found in your phone, remote control, electric cars, and many other types of technology
- Other types of storage are being considered across the state such as water storage, which would be complimentary to existing hydro-electric plants.

For more information and resources, visit usesusa.org by visiting our FAQs, Resources, Ag + Solar pages and more!