

# Creating Climate Change Solutions

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## **ENVIRONMENTAL LAW & POLICY CENTER**

Illinois

Indiana

Michigan

Minnesota

Ohio

Wisconsin

The Environmental Law & Policy Center is the Midwest's largest environmental legal and policy advocacy organization.

We believe we can both protect our natural heritage and advance our economy.

www.ELPC.org www.RuralSolarStories.org

## ELPC's Farm Energy Program

#### Led on REAP for 20 years.

Work with Congress, USDA, allies

## **Policy solutions**

Strategy / advice

#### **Education**

- RuralSolarStories.org
- Webinars and workshops

New Report! elpc.org/REAPSuccess

## REAP Success Stories

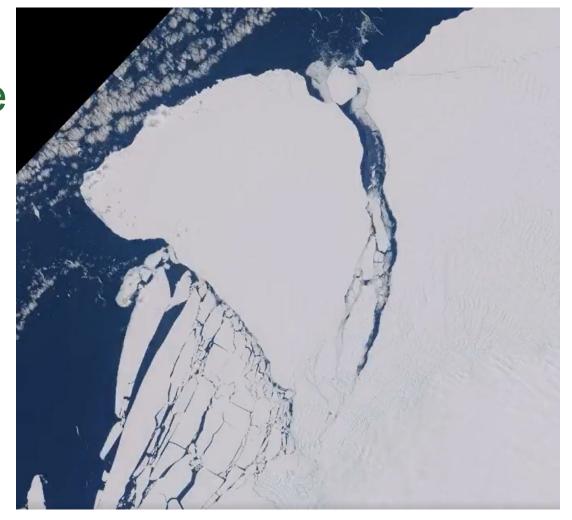
Advancing Economic Development, Farm Income, and the Environment through the Rural Energy for America Program





#### Time to Act on the Climate Crisis

- Climate change is expensive and risky
- We have solutions
- Rural America is key
- We need to act <u>quickly</u> and at great scale



## **Climate Disruption and Agriculture**

## Agriculture affected:

- Season creep
- Changes in Precipitation Patterns
- Flooding
- More Droughts and Heat Waves
- Markets want low carbon footprint

## We have solutions!





## **Rural Energy for America Program - REAP**

## 20 years of service to America

- Over 22,000 awards for energy efficiency and renewable energy
- Has reached every state
- Serves every agricultural sector
- Advances rural economic development with environmental progress





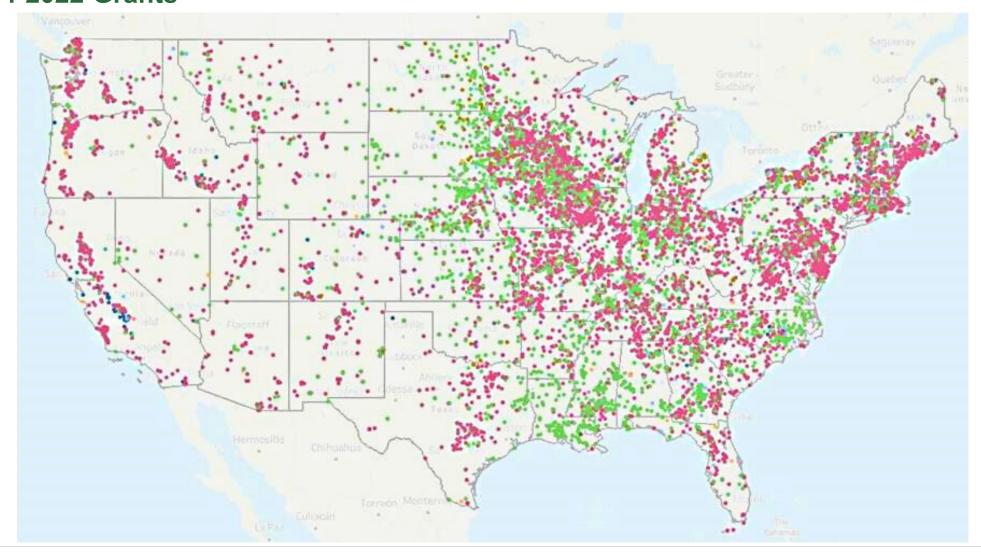
#### **REAP Features**

- REAP created in 2002 Farm Bill
- Renewed three times
- Over 22,000 projects in 20 years

- Grants and Loan Guarantees
- 25% cost share
- Competitive award, based on proposal scores
- Historically oversubscribed



# **REAP Serves Every State** 2014-2022 Grants





# White Oak Pastures – Solar & Energy Efficiency Bluffton, Georgia

- Regenerative agriculture success story
- Grant for 2010 solar array
- 2019 REAP grant of \$19,250 for efficient freezer doors
  - Increased picking hours, 10-12 hours (up from 8)
- Will expand sheep grazing, 3,800 acres of solar farms
  - Helps new farmers build a stake.
- Clay County one of poorest counties in America
  - White Oaks is largest private employer, 180 employees
  - Pay over \$100,000 weekly into local economy





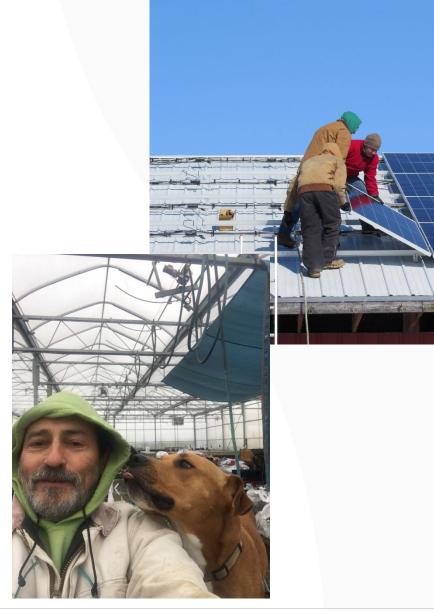
## Smiley Farms — Energy Efficiency Greensburg, Indiana

- 2018 REAP grant of \$16,250
  - Covered 25% of the cost for 46 variable frequency drives (VFDs)
  - VFDs allow motors to run at slower speeds to match output needed for job
    - Less wear and tear
- Expect to realize \$6,500 per year in savings
  - Reducing yearly energy use by 66,612 kWh or 52%, enough to power 6 homes



# Wildtype Native Plant Nursery – Solar Mason, Michigan

- REAP grant for 35 kW solar array
  - "Dealmaker"
- Utility bill decreased from \$550 to \$100 per month
- Short 7-year payback period for panels lasting 30 years
- Agriculture energy crisis
  - Panels provide stable energy costs and savings





## Thomas Wind – Wind Energy Hadley, Minnesota

- 2019 REAP grant of \$16,000 for 120 kW wind turbine
- Provides \$8,000-10,000 per year
  - Increased income and offsets electricity costs
- Unused land and missed opportunities
  - Need programs like REAP and stronger net metering for more people
  - Turbines being wasted and scrapped

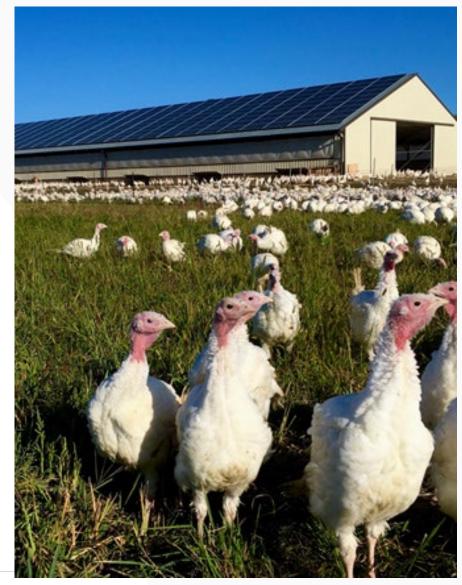






## Bowman & Landes Turkey Farm — Solar Bluffton, Georgia

- Keeping their carbon footprint low with energy efficiency and renewable energy
  - 2 previous solar arrays
  - LED lighting and electrification
- 2020 REAP grant of \$59,900 for additional 200 kW solar array
- Combined projects cover 50% of farms yearly operating needs
  - Savings of \$25,000 per year
- Strong supporters of agrivoltaics and solar





## Fiesta Foods – Energy Efficiency

**Beresford, South Dakota** 

- Grant for energy efficient refrigeration units
  - REAP covered 25% of cost, back into the business.
  - Allowed for more complete overhaul
- Savings of ~\$1,300 per month
  - Lower repair and food costs
  - Food lasts longer and is cleaner behind doors
- Increased sales every year since renovation

"It's a must to keep . . . [REAP] . . . because once you start losing your small business in these small towns, you don't have a lot of town left"







# Main Canal Drop Number 6 (MC6) Project - Hydroelectric Kuna, Idaho

- REAP grant of \$116,000
- Power sold to local utility company, replaced 2 coal plants
  - Enough for 700 homes
- Employed 30-40 workers during COVID, added \$5 million to local economy
- MC6 large property tax payer in county

"Infrastructure that pays taxes instead of collects taxes"





#### Inflation Reduction Act

## REAP is key to address climate crisis

- Increased funding to \$2 billion over 10 years
- Cost-share increased up to 50%
- Technical Assistance
- Underutilized Renewable Energy Technologies





#### ELPC REAP Goals for Farm Bill 2023

## **REAP 3.0**

- Modernize: Align with I.R.A.
  - Make REAP a signature rural climate program
- REAP for All: Increase equity
- Create a stronger project pipeline
- Create a REAP rebate-style program
- Create Farm Energy Star
- Contact Aolsen@elpc.org for more details





## REAP for All: Increase equity

- ELPC analysis evaluated proportion of awards compared to populations
  - Funding share higher than population share for Asian Americans and American Indians.
  - Funding lower than population share for African Americans and Hispanics.
- Must address historic USDA discrimination



#### Proforestation: Protect carbon reserves in our forests

- An effective climate solution.
- Protect remaining mature and oldgrowth forests and trees
- Need a strong rule across federal public lands to protect mature and old-growth trees and forests from logging.
- Implications for REAP, USFS, USDA
  - Change. Adapt. Faster.





## Evaluate Climate Impacts

- Carbon debt: Stores removed
- Sequestration capacity Annual
- Carbon break-even

## For

- USFS
- REAP
- Biomass Projects





## Conclusion

## We can do this! We must!

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