



November 1, 2021

Submitted via Federal Register

Re: Request for Public Input on New Climate-Smart Agriculture Initiative (Docket ID: USDA-2021-001) - Beneficial Electrification League Comments to USDA

To Whom It May Concern:

The Beneficial Electrification League (BEL) is pleased to provide input to the USDA on the new Climate-Smart Agriculture Initiative. BEL's mission is to increase understanding on the benefits of electrification by promoting the market acceptance of beneficial electrification, educate policymakers on the value and benefits of beneficial electrification, and to serve as a conduit and facilitator of beneficial electrification resources. We are a 501(c)(3) organization founded in 2018 with experience providing grants to farmers to pilot electric technology that will reduce greenhouse gas emissions on their farms. This work, described below, has been conducted with support of philanthropic foundations, electric cooperative utilities, non-profits, and the private sector. Our sponsors and stakeholder network (grantees, board members, and partners) have extensive experience with public-private partnerships across Federal, State and local governments, including USDA programs, and we believe that BEL could be key stakeholders in implementing the Climate-Smart Agriculture Initiative.

Our comments support questions 2, 3, 4, 5, and 6.

Summary of Comments:

- 1) Beneficial electrification of equipment on farms that reduce overall greenhouse gas emissions should be a key strategy towards meeting the goals of the Climate-Smart Agriculture Initiative.
- 2) Grants to farmers to help purchase such equipment (electric grain drying, electric tractors, electric material handlers, electric pumps, etc.) and the power lines to bring them electric service is a good way to achieve beneficial electrification goals, including reduced greenhouse gas emissions on farms, and thus of agricultural commodities.
- 3) Funding for pilots should be available directly to farmers and electric utilities and non-profit organizations such as the Beneficial Electrification League.

Background:

Electrification changed the landscape of America, boosting the nation's economy and the quality of life. USDA should be proud of its role, including through the Rural Utilities Services in partnership with electric cooperatives. The National Academy of Engineers lists electrification as the most significant engineering achievement of all time. World Bank research demonstrates that access to electricity is one of the most powerful economic development multipliers, enabling people around the world to break free from subsistence and prosper. Now, more than a century after the first poles and wires went up, the electric power industry is undergoing a second revolution as the industry dramatically alters not only the fuel mix behind the electric grid but also the electric distribution system itself.

The nature of the electricity grid is changing dramatically, as are our nation's environmental goals, and our policy thinking needs to change profoundly, too. Mounting research suggests that intensive electrification of energy end uses – including those in the agricultural sector for farming of commodities as described in the smart climate agricultural initiative – is needed if the United States and the world are to achieve ambitious emission reduction goals for carbon dioxide. This concept, the electrification of energy end uses that have been powered by fossil fuels (natural gas, propane, gasoline, diesel, or fuel oil) in order to reduce greenhouse gas emissions, is called “environmentally beneficial electrification.”

The Beneficial Electrification League believes that electrification of end-uses on farms creates opportunities to save money for farmers, reduces carbon emissions, helps foster a robust and resilient grid, and improves quality of life for Americans. When this is achieved, it is a win-win-win situation for consumers, the environment, and businesses. To be clear, we do not think that electrification should be forced onto farmers, but instead believe that programs like the Climate-Smart Initiative should include beneficial electrification as a strategy to achieving its goals by incentivizing voluntary uptake of beneficial electrification opportunities.

Specific Comments:

Question 2. In order to expand markets, what should the scope of the Climate-Smart Agriculture and Forestry Partnership Program be, including in terms of geography, scale, project focus, and project activities supported?

The scope of the Climate-Smart Agricultural Partnership program should include all of the US and should be inclusive of farms of all sizes, including small family farms. As discussed above, the scope should include beneficial electrification of farm equipment. In addition, it could include use of “green fertilizer” or fertilizer using ammonia that is produced by clean electricity. A sample of these technologies is described in the response to question 3 below.

Question 3. In order to expand markets, what types of CSAF project activities should be eligible for funding through the Climate-Smart Agriculture and Forestry Partnership Program? Projects

should promote the production of climate-smart commodities and support adoption of CSAF practices.

We believe that the activities should include programs that supply grants, loans, and loan guarantees to producers for equipment needed to implement CSAF practices, or for capital-intensive CSAF technologies. This includes, but is not limited to, the following technology.

- Electric Grain Drying – for more information see: [Surveillance-Radio-Wave-Grain-Drying-for-Beneficial-Electrification-May-2020.pdf \(be-league.com\)](https://be-league.com/wp-content/uploads/2020/06/Surveillance-Radio-Wave-Grain-Drying-for-Beneficial-Electrification-May-2020.pdf) or <https://be-league.com/wp-content/uploads/2020/06/Surveillance-Radio-Wave-Grain-Drying-for-Beneficial-Electrification-May-2020.pdf>
- Electric Irrigation: See <https://www.cooperative.com/programs-services/bts/Documents/TechSurveillance/tsbecasestudyirrigationsystemsdec2017.pdf>
- Grain Handling: This could include anything from electric utility terrain vehicles to haul grains and other off-road vehicles that otherwise would combust fossil fuels.
- Electric tractors: Several electric tractor models are now on the market including plug in and battery-operated versions.
- Indoor agriculture

We also believe that a pilot program that promotes the uptake of ‘green ammonia’ produced using clean electricity rather than fossil fuels should be eligible. The consumption of fossil fuels for ammonia production creates ‘Scope Two’ emissions of carbon dioxide that can be eliminated by switching production to electricity. The technology and economics of electrolysis-based ammonia production is rapidly advancing, and USDA can play an important role in supporting the uptake of green ammonia in agriculture. For example, one useful program could be a labeling program for green fertilizer, to differentiate from fossil-fuel-based fertilizer.

Finally, transmission and distribution to bring electricity, especially in areas close to wind resources, to these farms that otherwise are stuck using diesel and other fossil fuels should be eligible. In most cases where electricity is not available for pumping water, large amounts of diesel are used. Bringing electricity can reduce costs, reduce emissions, and enable climate friendly agricultural practices.

Question 4: In order to expand markets, what entities should be eligible to apply for funding through the Climate-Smart Agriculture and Forestry Partnership Program?

Funding for pilots should be available directly to farmers and electric utilities or non-profit organizations such as the Beneficial Electrification League. In fact, the Beneficial Electrification League has a track record of supplying such grants to farmers to pilot electric technology. A sample of related stories follows:

- Single phase pumps (see local story at: [Local farm receives grant for green technology | Anson Record](#) or <https://ansonrecord.com/news/11623/local-farm-receives-grant-for-green-technology>)
- Waste heat recovery systems (see local story at: [Hoosier Energy: Awarded \\$25,000 Project Grant From Beneficial Electrification League and National Rural Electric Cooperative Association \(Bloomington\) - Indiana Chamber of Commerce](#) or <https://www.indianachamber.com/hoosier-energy-awarded-25000-project-grant-from-beneficial-electrification-league-and-national-rural-electric-cooperative-association/>)

Question 5. In order to expand markets, what criteria should be used to evaluate project proposals for receiving funding through the Climate-Smart Agriculture and Forestry Partnership Program?

Criteria for evaluating proposal should include strength of partnerships and expertise, but should also be favorable to innovation by non-profits such as the Beneficial Electrification League.

Question 6. In order to expand markets, which CSAF practices should be eligible for inclusion?

It is important for CSAF practices to have good metrics to monitor, track, and verify results of the program. For electrification efforts, these activities are fairly straightforward and can include an analysis of the greenhouse gas emissions that would have occurred if the fossil fuel combustion of non-electric equipment was used versus the emissions of electric equipment. This could be reported to USDA by an organization that administers grants, such as the Beneficial Electrification League.

Thank you very much for your consideration of our comments and for your continued good work to support farmers, the economy and rural electrification

Please do not hesitate to reach out to Quincy Gottwig with any questions at:

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Sincerely,

/s/

Gary Connett,
Chair of the Board of Directors
Beneficial Electrification League