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Being Recorded

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U.S. DEPARTMENT OF ENERGY



**Large Animal and Solar System Operations (LASSO) Prize**  
Stage 1 Informational Webinar

September 24, 2024

# Agenda

1

Welcome, Agenda, and Housekeeping

2

Background and Context of the LASSO Prize

Dr. Becca Jones-Albertus – Director of the U.S. Department of Energy Solar Energy Technologies Office

3

Overview of LASSO Prize

Goals, Timeline, Summary of the Standard and Operating Projects Tracks

4

Eligibility Criteria

Who Can Apply

5

Phase 1 Submission Requirements and Winner Selection

Standard Track and Operating Projects Tracks

6

HeroX Platform Demonstration

How to find resources and apply to the prize

7

Q&A

# Housekeeping

- This webinar is **being recorded** and will be made publicly available (on HeroX) following today's webinar, along with a **PDF of the slide deck**.
- We will have time for **Q&A at the end of today's webinar**.
  - Please submit your questions via the **Q&A Tool and not via chat**.
  - We may not be able to get to all questions today; however, we will **post written responses to all questions** (whether answered live or not) to the **HeroX FAQ** following today's presentation.



# Background and Context

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Dr. Becca Jones-Albertus

Director of the U.S. Department of Energy Solar Energy Technologies Office



# U.S. Departments of Agriculture and Energy Host Virtual Listening Sessions on Clean Energy Siting on American Farmland

DECEMBER 11, 2023

Solar Energy Technologies Office »

U.S. Departments of Agriculture and Energy Host Virtual Listening Sessions on Clean Energy Siting on American Farmland

The U.S. Department of Agriculture (USDA), in collaboration with the U.S. Department of Energy (DOE), hosted a series of virtual listening sessions to hear perspectives on the benefits and challenges of the increased levels of clean energy projects being sited on agricultural lands and in rural communities.

# Agrivoltaics is an opportunity

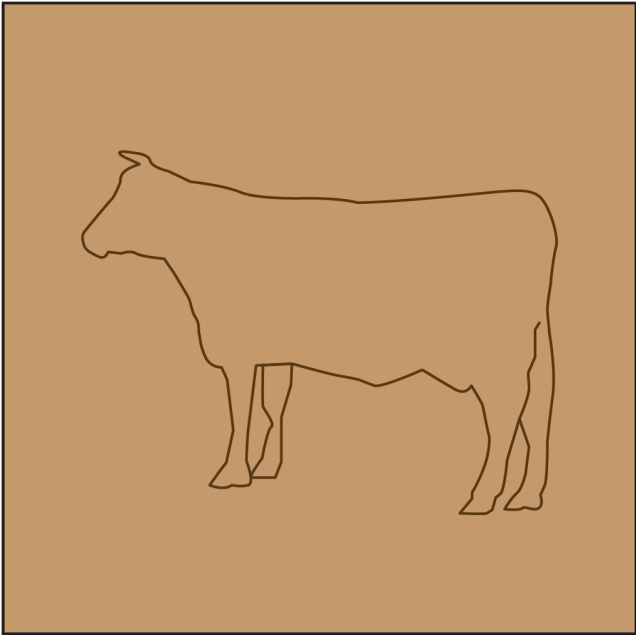
Agrivoltaics is the co-location of agricultural production (livestock, crops, or pollinator habitat) with PV



5M sheep ... 88M cattle

A diagram illustrating the land area required for different types of livestock. It features a single sheep icon on the left and 88 cattle icons arranged in a grid on the right. The text above the icons reads "5M sheep ... 88M cattle".

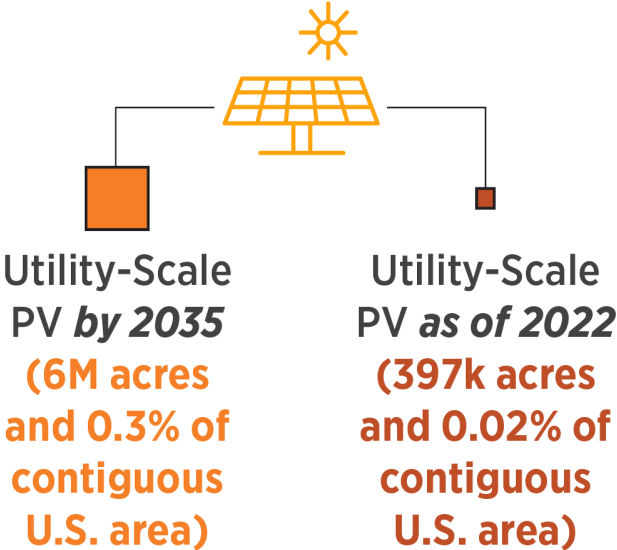
# Grazing land is 111x larger than projection of PV in 2035 for decarbonization



Grazing Land  
(665M acres and  
33% of contiguous  
U.S. area)



Cropland  
(382M acres and  
19% of contiguous  
U.S. area)



# Overview of LASSO Prize

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Goals, Timeline, Summary of the Standard and Operating Projects Tracks





# Large Animal and Solar System Operations (LASSO) Prize

Incentivize pilot cattle agrivoltaics projects across the U.S., share designs and results, and provide information and best practices

- \$8 million in prize awards
- Two tracks – for new and existing projects
- Two bonus prizes:
  - Largest new agrivoltaics project over 5 MW-dc
  - Most valuable data that goes above and beyond the minimum requirements



# Two Tracks: Standard and Operating Projects

## Track 1: Standard Track

For teams who are developing new cattle agrivoltaics PV projects

## Track 2: Operating Projects Track

For teams who have existing cattle agrivoltaics PV Projects

**Projects may only be submitted to a single track, either to the Standard Track or to the Operating Projects Track.**

# LASSO Prize Tracks and Phases

## Standard Track

**Phase 1: Teaming**  
*6 months*

**Phase 2: Plans and Construction**  
*Up to 2.5 years*

**Phase 3: Data Collection**  
*2 years*

## Operating Projects Track

**Phase 1: Summary Information**  
*6 months*

**Phase 2: Data Collection**  
*2 years*

## Bonus Prizes

**Largest PV System >5MW**  
*Only for Standard Track teams*

**LASSO Data Bounty**  
*Open to all teams, based on submitting valuable data beyond requirements*

# Standard Track – For New Cattle Agrivoltaic Projects

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# Standard Track Eligible Projects

- The **Standard Track** is for teams who are developing **new** cattle agrivoltaics projects or teams with existing PV arrays that plan to introduce cattle to their systems or make alterations to existing arrays before introducing cattle.
- All projects must involve the **co-location of cattle grazing and a solar photovoltaic (PV) system**.
  - Only ground-mount projects are eligible. Projects that include rooftop PV systems, projects without interaction between the cattle and the PV array, or projects with any livestock other than cattle are not eligible.
- Project PV systems must be a **minimum of 250 kW-dc total**.
  - Note: only the capacity of the PV system that the cattle actually graze under and around will be counted toward system size for determining winners (e.g., a 4 MW-dc PV array with only 250 kW-dc that cattle graze under will be counted as a 250 kW-dc system when system size is considered for awards).
- Projects **may only be submitted to a single track**, either to the Standard Track or to the Operating Projects Track.

# Standard Track Prize Phases

6 Months

## Phase 1: Team Formation & Project Planning

- Teams must include solar developers and cattle ranchers/farmers.
- Identify a site and develop a plan to integrate PV systems with cattle grazing.
- Submission includes team info, project details, a narrative, and letters of support.
- Goal: Lay the groundwork for Phases 2 & 3 with a solid project plan

Up to 2.5 Years

## Phase 2: Planning, Design, & Construction

- **Phase 2A:** Finalize designs, obtain permits, and submit an interconnection application.
- **Phase 2B:** Build the system and demonstrate operational readiness, including proof of cattle integration.
- Note: NEPA approval required for Phase 2A award!

2 Years

## Phase 3: Data Collection & Analysis

- Two years of data on energy production, cattle health, O&M, and agricultural outcomes.
- Four submission deadlines (every 6 months)
- Teams host community events to share insights on system performance and best practices.
- Optional additional data (e.g., soil quality, water management, community perceptions) can be submitted for the Data Bounty Bonus Prize.

# Standard Track Cash Prizes

Standard Track Prizes				
Phase		# Awards	Cash Prize Award Per Team	Total Prize Pool
Standard Track				
Phase 1		Up to 14	\$50,000	\$700,000
Phase 2	2A	Up to 7	\$225,000	\$1,575,000
	2B	Up to 7	\$225,000	\$1,575,000
	Bonus Prize: Largest PV System >5 MW-dc	Up to 1	\$100,000	\$100,000
Phase 3	3A	Up to 7	\$100,000	\$700,000
	3B	Up to 7	\$100,000	\$700,000
	3C	Up to 7	\$100,000	\$700,000
	3D	Up to 7	\$100,000	\$700,000
	Bonus Prize: Data Bounty*	Up to 1	\$100,000	\$100,000
<b>Total</b>			Up to \$1,100,000 (including bonus prizes)	\$6,850,000

\*Note: A single award will be given for the Data Bounty bonus prize, selected from the total applicant pool inclusive of both the Standard and Operating Projects Tracks.

# Standard Track Key Dates

## Phase 1 (September 2024–May 2025)

<b>September 10, 2024</b>	Open for Phase 1 Submissions
<b>March 6, 2025, 5 p.m. ET</b>	Phase 1 Submission Deadline
<b>May 2025</b>	Phase 1 Winner Announcement (Anticipated)

## Phase 2 (May 2025–March 2028)

<b>May 2025*</b>	Phase 2A Open for Submissions
<b>November 27, 2025, 5 p.m. ET</b>	
<b>May 28, 2026, 5 p.m. ET</b>	Phase 2A Submission Deadlines
<b>November 26, 2026, 5 p.m. ET</b>	
<b>Rolling Announcement; February 2026 - February 2027</b>	Final Phase 2A Winners Announced
<b>Rolling Opening Date: February 2026 - February 2027*</b>	Phase 2B Open for Submissions
<b>February 9, 2028, 5 p.m.</b>	Phase 2B Submission Deadline
<b>March 2028*</b>	Final Phase 2B Winners Announced

## Phase 3 (April 2028–May 2030)

<b>April–September 2028*</b>	Phase 3A Data Collection Period
<b>October 19, 2028, 5 p.m. ET</b>	Phase 3A Submission Deadline
<b>October 2028–March 2029*</b>	Phase 3B Data Collection Period
<b>April 19, 2029, 5 p.m. ET</b>	Phase 3B Submission Deadline
<b>April 2029–September 2029*</b>	Phase 3C Data Collection Period
<b>October 18, 2029, 5 p.m. ET</b>	Phase 3C Submission Deadline
<b>October 2029–March 2030*</b>	Phase 3D Data Collection Period
	Phase 3D Submission Deadline and Final Report Deadline
<b>April 18, 2030, 5 p.m. ET</b>	Data Bounty Prize Submission Deadline
<b>May 2030*</b>	Data Bounty Prize Winner Announced

**Winners for Phases 3A–3D will be announced, and awards will be paid, approximately 30–60 days following each submission deadline.**



# Operating Projects Track – For Existing Cattle Agrivoltaic Projects

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# Operating Projects Track Eligible Projects

- The **Operating Projects Track** is for teams who have **existing cattle agrivoltaics Projects**. Teams with cattle agrivoltaics systems already built and operational, with cattle integrated, at the time of the Phase 1 application deadline are ineligible for the Standard Track but may be eligible for the Operating Projects Track
- All projects must involve the **co-location of cattle grazing and a solar photovoltaic (PV) system**.
  - Only ground-mount projects are eligible. Projects that include rooftop PV systems, projects without interaction between the cattle and the PV array, or projects with any livestock other than cattle are not eligible.
- Project PV systems must be a **minimum of 250 kW-dc total**.
  - Note: only the capacity of the PV system that the cattle actually graze under and around will be counted toward system size for determining winners (e.g., a 4 MW-dc PV array with only 250 kW-dc that cattle graze under will be counted as a 250 kW-dc system when system size is considered for awards).
- Projects **may only be submitted to a single track**, either to the Standard Track or to the Operating Projects Track.

# Operating Projects Track Prize Phases

6 Months

## Phase 1: Documentation of Existing Projects

- For fully operational cattle agrivoltaics systems ( $\geq 250$  kW-dc).
- Submit project documentation, including system specs, cost info, and cattle integration details.
- Goal: Collect design and operational data to prepare for Phase 2.

2 Years

## Phase 2: Data Collection & Reporting

- Two years of data collection with four submission deadlines (every 6 months).
- Report on system performance, energy production, cattle health, O&M, and agricultural outcomes.
- Teams will also host community events to share findings and best practices.
- Optional additional data (e.g., soil quality, water management, community perceptions) can be submitted for the Data Bounty Bonus Prize.

# Operating Projects Track Cash Prizes

Operating Projects Track Prizes				
Phase		# Awards	Cash Prize Award Per Team	Total Prize Pool
Phase 1		Up to 3	\$50,000	\$150,000
Phase 2	2A	Up to 3	\$100,000	\$300,000
	2B	Up to 3	\$100,000	\$300,000
	2C	Up to 3	\$100,000	\$300,000
	2D	Up to 3	\$100,000	\$300,000
Bonus Prize: Data Bounty*			\$100,000	\$100,000
Total			Up to \$550,000 (including bonus prize)	\$1,450,000

\*Note: A single award will be given for the Data Bounty bonus prize, selected from the total applicant pool inclusive of both the Standard and Operating Projects Tracks.

# Operating Projects Track Key Dates

## Phase 1 (September 2024–May 2025)

September 10, 2024	Open for Phase 1 Submissions
March 6, 2025, 5 p.m. ET	Phase 1 Submission Deadline
May 2025	Phase 1 Winner Announcement (Anticipated)

## Phase 2 (June 2025–May 2027)

June–November 2025*	Phase 2A Data Collection Period
December 18, 2025, 5 p.m. ET	Phase 2A Submission Deadline
December 2025–May 2026*	Phase 2B Data Collection Period
June 18, 2026, 5 p.m. ET	Phase 2B Submission Deadline
June–November 2026*	Phase 2C Data Collection Period
December 17, 2026, 5 p.m. ET	Phase 2C Submission Deadline
December 2026–May 2027*	Phase 2D Data Collection Period
June 17, 2027, 5 p.m. ET	Phase 2D Submission Deadline and Final Report Deadline
	Data Bounty Prize Submission Deadline
May 2030*	Data Bounty Prize Winner Announced (date aligned with Standard Track)
Winners for Phases 2A–2D will be announced and awards will be paid approximately 30–60 days following each submission deadline.	

# Bonus Prizes

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# Bonus Prizes

## Bonus Prize 1: Largest PV System > 5MW

- Up to 1 winner receives \$100,000
- Only the size of the array cattle interact with will be considered
- Open only to teams in the Standard Track
- All eligible teams will be automatically considered

## Bonus Prize 2: LASSO Data Bounty

- Up to 1 winner receives \$100,000
- Open to teams in Standard Track Phase 3 and Operating Track Phase 2
- Submit additional information-rich data sets, such as detailed time-series energy data, water or soil quality data, forage data, cattle biometrics, etc.



# Eligibility Criteria

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Who can apply

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# Eligibility to compete in LASSO

## Competition is open to:

- Private entities (for-profits and nonprofits)
- Non-federal government entities
- Academic institutions
- Individuals who are citizens or legal permanent residents of the U.S.
- All individuals on the team must be legally authorized to work in the United States

## Competition is **NOT** open to:

- Non-U.S. Citizens or Permanent Residents (either team lead or team members)
- Non-U.S. based organizations
- Projects with livestock other than cattle
- Projects not based in the U.S.
- Projects under 250 kW-dc

## All teams must include both a U.S.-based:

- Solar developer
- Rancher or farmer

**Other encouraged teammates:** hardware and software manufacturers, local governments, utilities, commodity organizations, historically underserved producers, researchers, extension programs, and universities with expertise in cattle research and agrivoltaics

**Multiple Submissions:** Competitors are allowed to be a part of multiple teams and/or submissions.

Each submission must be for a distinct project or system (i.e., has unique location, design parameters, and team) and meet all eligibility criteria specified in the rules.

However, a competitor may only be the lead on one submission.

# Phase 1 Submission Requirements

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## Standard Track and Operating Projects Tracks



# Read the Rules



## Official Rules

American-Made Large Animal and Solar System  
Operations (LASSO) Prize

Standard Track Phase 1 and Phase 2A

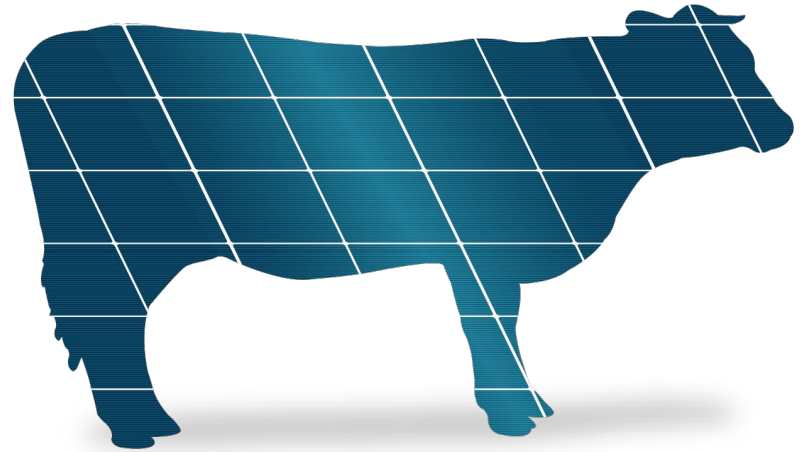
Operating Projects Track Phase 1

September 2024

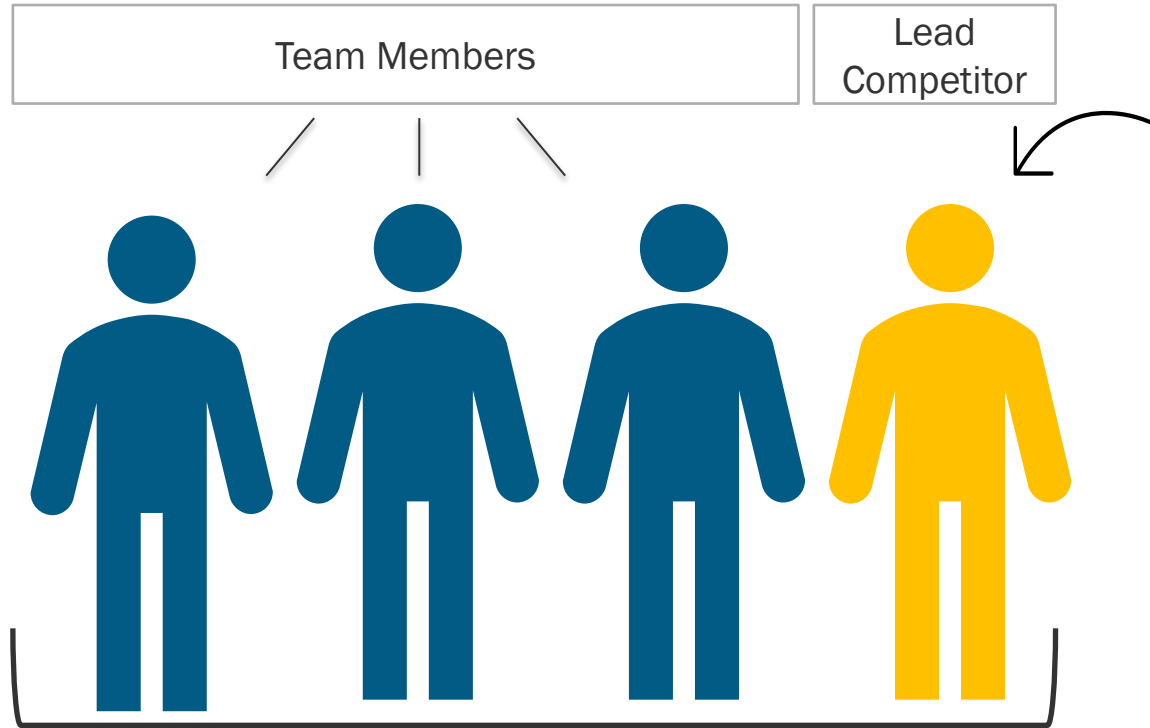
Official Rules of the  
American-Made LASSO Prize are  
available online on HeroX:  
<https://www.herox.com/LASSO/resource/1987>

# Prize Steps

1. **Submission** – Competitors form teams and then develop and submit comprehensive project proposals for integrating PV with cattle grazing. Teams must complete their submissions online before the submission deadline.
2. **Evaluation** – The prize administrator screens submissions for eligibility and completion and assigns subject-matter-expert reviewers to independently score the content of each submission.
3. **Announcement** – After the winners are publicly announced, the prize administrator notifies them and requests the necessary information to distribute cash prizes.



# LASSO Teams



The team will put forward one team member to be the **lead competitor**.

The **lead competitor** will be the main point of contact and in charge of submissions and distribution of winnings.

LASSO teams will be made up of multiple team members (“competitors”)



**Note:** All team members must meet the eligibility criteria in the [official rules](#).

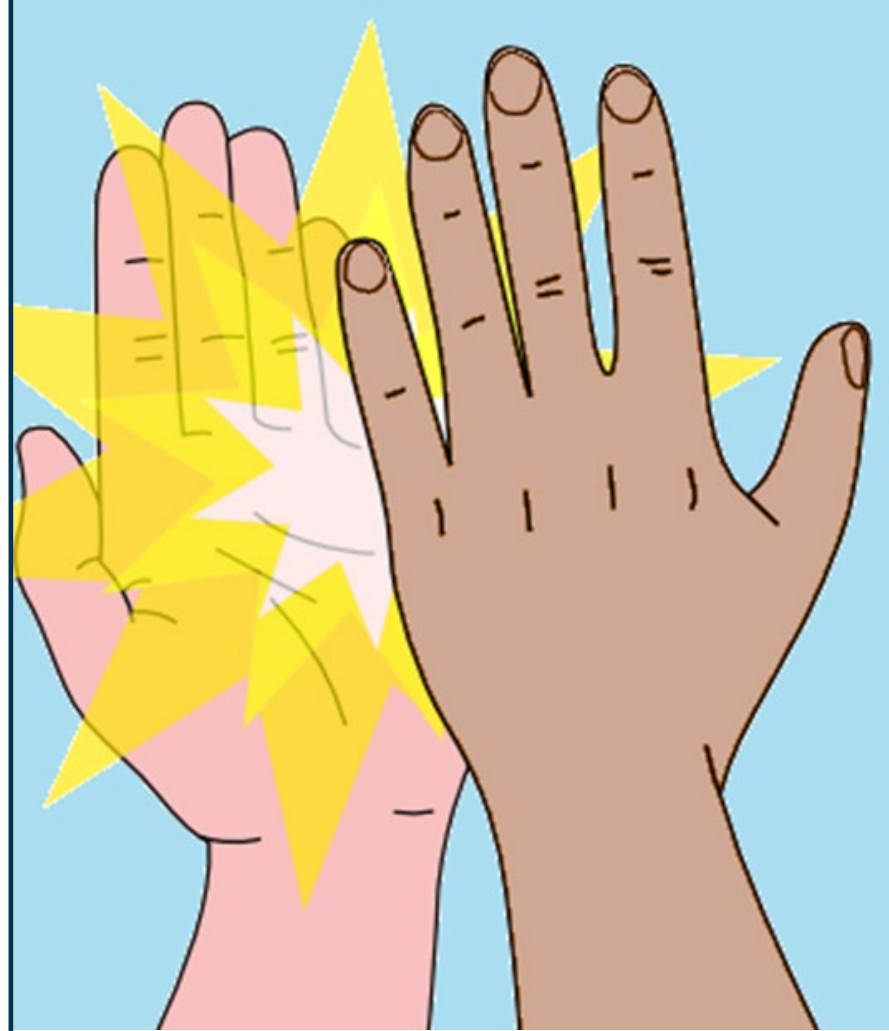
# Forming Teams is Essential For LASSO Prize Success

All teams must include, at a minimum, a solar developer **and** a rancher or farmer, but should also consider including other multidisciplinary members such as local governments, academic researchers, extension programs, etc.

Competitors are responsible for forming their own teams, but LASSO is providing resources to help, such as:

- [HeroX Teaming Resource](#)
- Power Connector Support (ADL Ventures)

Start forming your team now for your Phase 1 submission!



# Standard Track

## Phase 1 Submission Requirements

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# What to Submit: Standard Track Phase 1

## Submission Form on HeroX:

- **Team and Project Information** (required; select elements will be made public)
- **Narrative** (required; will not be made public)
- **Summary PowerPoint Slide** (required; will be made public; applicants may use the [template provided through HeroX](#))
- **Letters of Support** (required; will not be made public)
- **Supporting Documentation** (optional, will not be made public)

The screenshot shows the 'Create Submission' form on HeroX. It is divided into two sections:

**Section 1: Introduction**

- Title \***: A text input field with a character count of 0/50. Instruction: "Give your submission a catchy title that describes the idea and gets people interested."
- Short description**: A text area with a character count of 0/140. Instruction: "Provide a brief description of your idea. Be clear and concise."
- Image**: A button labeled "Upload Image" with a camera icon. Instruction: "An image boosts your message by illustrating your solution. Ensure your image is at least 650 pixels wide by 350 pixels tall for clarity." Supported file types: PNG, JPG.
- How did you hear about this challenge?**: A text input field with a character count of 0/100. Instruction: "How did you hear about this challenge?"

**Section 2: Eligibility Acknowledgement**

I confirm that I am submitting as either (select one): \*

Please confirm that your submission meets the eligibility requirements stated in the official rules

- Private entities incorporated in and maintaining a primary place of business in the United States (for-profits and nonprofits)
- Non-Federal government entities such as states, counties, Tribes, and municipalities
- Academic institutions (based in the U.S.)
- Individuals and teams of individuals who are citizens or legal permanent residents of the U.S.



# Team and Project Information

## Team Information (submitted via HeroX submission form)

- Project title\*
- Lead competitor name\*
- Lead competitor type (cattle rancher/farmer, dairy farmer, landowner, solar developer, historically underserved producer organization, product developer, commodity organization, utilities, universities, other [please specify])
- Lead competitor address (street, city, state, and nine-digit ZIP code)
- Lead competitor contact information (email, phone number, and links to any professional online profiles)
- Lead competitor resume or curriculum vitae (CV)
- For each other competitor on the team, please provide: Competitor name, Resume / CV, Competitor type, Contact information and a brief description of role/contribution to the project.
- **Document Upload:** Upload a spreadsheet or chart detailing each competitor's role on the team in the proposed project (e.g., a RASIC chart).

(required; some elements public)

# Team and Project Information

## Project Information (submitted via HeroX submission form)

- Anticipated project site location(s) (county/municipality and state)
- Site control status for each potential site (e.g., owned by a team member, under an active lease agreement, etc.)
- Anticipated total PV system capacity (kW-dc)
  - Note: Systems must have a minimum capacity of 250 kW-dc, but larger systems are desirable (see [Section 1.4](#) for information on eligibility and [Section 3.7.4](#) for information on how we determine winners). If the cattle interact with only a portion of the total PV system, that portion must have a capacity of at least 250 kW-dc.
- Quantity and description of cattle that will be or are anticipated to be part of the project and interact with the PV system. Description of cattle should include breed(s), animal age range, and whether the cattle are beef or dairy cattle.
- Executive Summary (250 word maximum) consisting of an overview of the project concept and its potential impact.

**(required; some elements public)**

# Narrative

## Category 1—Organizations, Partnerships and Collaboration

List partners, their roles, and their contributions

## Category 2—Proposed Project Design

Provide a high-level overview of your proposed agrivoltaics system, showcasing your initial ideas and plans for integrating solar energy production with cattle grazing

## Category 3—Benefits, Impact, and Scalability

Describe the economic, environmental, and social benefits of the project

<b>Narrative</b> Maximum 5,000 words and up to ten supporting images or figures (PDF)
<b>Category 1—Organizations, Partnerships, and Collaboration</b> List partners, their roles, and their contributions
<b>Suggested content team provides:</b> <ul style="list-style-type: none"><li>• <b>Lead Competitor:</b> Briefly describe yourself/your organization, including mission/goals, history, and areas of expertise. Explain your role in the project and why you are well-suited to lead this agrivoltaics initiative. Highlight any previous experience with similar projects or relevant accomplishments.</li><li>• <b>Other Team Members:</b> Briefly describe the other team members, including mission/goals, history, and areas of expertise. Explain each member's roles and what they will contribute to the project. Highlight any previous experience with similar projects or relevant accomplishments.</li></ul>

See [official rules](#) – Section 3.6.2

**(required; will not be made public)**

# Summary PowerPoint Slide

Make a public-facing, one-slide submission summary that introduces your team and your project. Teams may use the [template available on HeroX](#) but are not required to do so.

Any text must be readable and should be in at least 14-point font.

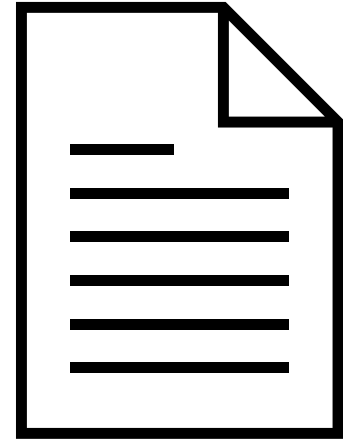
Large Animal and Solar System Operations (LASSO) Prize		AMERICAN MADE CHALLENGES <small>U.S. DEPARTMENT OF ENERGY</small>	
Team Name:		Project Location:	
Lead Competitor Name:		Anticipated/Actual Total PV System Capacity that cattle will interact with	
Submission Title:		Track:	Track 1: Standard Track OR Track 2: Operating Track
Number of Cattle:		<i>Insert relevant graphics (logos, maps, diagrams, etc.)</i>	
Team Members and Partners:			
System Description:			

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(required; will be made public)

# Letters of Support

- Letters of support are required from all team members who are not the lead. The letters of support should briefly describe the member's role in the project, what they will be contributing and how they plan to collaborate with other team members.
- Optional letters of support from outside of the team may include letters of support from other partners, stakeholders, and community members. These letters should detail their commitment to the project, specify their roles and contributions, and express their support for the initiative.



**(required; will not be made public)**

# Supporting Documentation

- To support the narrative document, teams may upload a single PDF of additional supporting documentation (up to 15 pages), which could include items such as executive summaries or signature pages of relevant permits, site control documentation, feasibility studies, technical specifications, environmental impact assessments, or other materials that support the viability and potential success of your project.

**(required; will not be made public)**

# Evaluation Criteria

The expert review team will consider the below scoring criteria in relation to the entirety of the Phase 1 submission package.

Scoring Criteria Areas:

- **Category 1:** Organizations, Partnerships and Collaboration
- **Category 2:** Proposed Project Design
- **Category 3:** Benefits, Impact, and Scalability
- **Reviewer Recommendation:** overall assessment of all materials submitted through HeroX

## Category 1—Organizations, Partnerships and Collaboration

A single score on a scale of 0–6 is provided, taking the following statements into consideration:

- **Team:** The lead organization has compelling reasons for participating in the LASSO Prize and has demonstrated relevant experience, which makes them exceptionally well-suited to lead this agrivoltaics initiative. Their previous accomplishments in similar projects underscore their capability and readiness to succeed.
- **Other Team Members:** The project includes a strong and diverse group of partners. The other team members bring complementary resources and expertise. As a group, the team is fully capable of designing and deploying a scalable cattle agrivoltaics system and collecting

See [official rules](#) – Section 3.7.1

# How We Select Winners

- Experts will review each submission individually and assess the team's response to each statement in the three areas described in rules.
- Reviewers will score each category, including the Reviewer Recommendation, with 0–6 points, depending on the degree to which the reviewer agrees that the submission reflects the statements for consideration.
- Each category score will be added together to generate a total score for the submission.
- The total scores from each reviewer will be averaged to produce a final score for the team. This score will inform the judge's (DOE) decisions on prize awards.
- Final determination of the winners by the judge will consider the reviewers' feedback and scores, interviews (if applicable), and the application of program policy factors (such as geographic diversity and size of PV system).



# Operating Projects Track

## Phase 1 Submission Requirements

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# What to Submit: Operating Projects Track Phase 1

## Submission Form on HeroX:

- **Team and Project Information** (required; select elements will be made public)
- **Narrative** (required; will not be made public)
- **Summary PowerPoint Slide** (required; will be made public; applicants may use the [template provided through HeroX](#))
- **Letters of Support** (required; will not be made public)

The screenshot displays the 'Create Submission' interface on HeroX. It is divided into two main sections:

- Section 1: Introduction**
  - Title \***: A text input field with a character count of 0/50. Instruction: 'Give your submission a catchy title that describes the idea and gets people interested.'
  - Short description**: A text area with a character count of 0/140. Instruction: 'Provide a brief description of your idea. Be clear and concise.'
  - Image**: A section for uploading an image. It includes a help icon and text: 'An image boosts your message by illustrating your solution. Ensure your image is at least 650 pixels wide by 350 pixels tall for clarity.' A 'Supported file types: PNG, JPG' note is present, along with an 'Upload Image' button.
  - How did you hear about this challenge?**: A text input field with a character count of 0/100. Instruction: 'How did you hear about this challenge?'
- Section 2: Eligibility Acknowledgement**
  - I confirm that I am submitting as either (select one): \***: A heading for a radio button selection.
  - Please confirm that your submission meets the eligibility requirements stated in the official rules**: A sub-heading.
  - Four radio button options:
    - Private entities incorporated in and maintaining a primary place of business in the United States (for-profits and nonprofits)
    - Non-Federal government entities such as states, counties, Tribes, and municipalities
    - Academic institutions (based in the U.S.)
    - Individuals and teams of individuals who are citizens or legal permanent residents of the U.S.

# Team and Project Information

## Team Information (submitted via HeroX submission form)

- Project title\*
- Lead competitor name\*
- Lead competitor type (cattle rancher/farmer, dairy farmer, landowner, solar developer, historically underserved producer organization, product developer, commodity organization, utilities, universities, other [please specify])
- Lead competitor address (street, city, state, and nine-digit ZIP code)
- Lead competitor contact information (email, phone number, and links to any professional online profiles)
- Lead competitor resume or curriculum vitae (CV)
- For each other competitor on the team, please provide: Competitor name, Resume / CV, Competitor type, Contact information and a brief description of role/contribution to the project.
- **Document Upload:** Upload a spreadsheet or chart detailing each competitor's role on the team in the proposed project (e.g., a RASIC chart).

**(required; some elements public)**

# Team and Project Information

## Project Information (submitted via HeroX submission form)

- Project name
- Project site location (county/municipality, state, ZIP code)
- Executive summary (250 word maximum) consisting of an overview of the project concept and its current and potential future impact
- PV system capacity (kW-dc).
  - Note: Systems must have a minimum capacity of 250 kW-dc. If cattle only interact with a portion of the system, that portion must have a minimum capacity of 250 kW-dc. Larger systems are desirable; see [Section 5.7.4](#) for more information.
- Total acreage of grazing site
- Coverage area of PV system(s) in acres
- The total modeled energy production of the PV system in kilowatt-hours (kWh) over the time periods of each subphase in Phase 2
- The utility in whose service territory the project is located
- The total cost of the PV system (from design and planning through energizing the system, including fees for permits and approvals, NOT including costs for cattle or cattle-specific infrastructure)
- Estimated or documented additional cost of the PV system due to integrating cattle, (from design and planning through energizing the system, including fees for permits and approvals, NOT including costs for cattle or cattle-specific infrastructure such as equipment to provide drinking water or temporary cattle fencing used internally to the site) relative to the cost of a PV system of the same size and in the same location not designed to integrate cattle
- Costs associated with procuring cattle or contracting a grazer/rancher, and for cattle-specific infrastructure such as equipment to provide drinking water or temporary cattle fencing used within the site

**(required; some elements public)**

# Team and Project Information

Project Information (submitted via HeroX submission form)

Documentation Upload:

Teams must upload documentation related to their project including:

- **Required documentation (please upload documents separately):**
  - **Document Upload:** Engineering designs and drawings, or as-builts
  - **Document Upload:** Fully executed interconnection agreement
  - **Document Upload:** Applicable land use permit or approval (e.g., Conditional Use Permit, Special Use Permit, etc.) received from the authority having jurisdiction
  - **Document Upload:** Photos of the array with cattle.

**(required; some elements public)**

# Narrative

**Category 1 Organizations, Partnerships and Collaboration:** List partners, their roles, and their contributions

**Category 2 Design of Existing Project:** Provide detailed information about the design of your existing operational cattle agrivoltaics project.

**Category 3 Cattle Integration:** Describe the ongoing approach to integrating cattle with the PV system. Describe how grazing patterns and animal health and safety are managed at the existing project, and outline challenges that have arisen and how you have addressed them.

**Category 4 Plans for Data Collection:** Discuss your plans for data collection, focusing on system performance, energy production, O&M procedures and events, cattle growth and health, and milk production (if applicable).

**Category 5 Benefits, Impact, and Scalability:** Economic, environmental, and social benefits of the project.

<b>Narrative</b> Maximum 5,000 words and up to ten supporting images or figures (PDF)
<b>Category 1—Organizations, Partnerships, and Collaboration</b> List partners, their roles, and their contributions
<b>Suggested content team provides:</b> <ul style="list-style-type: none"><li>• <b>Lead Competitor:</b> Briefly describe yourself/your organization, including mission/goals, history, and areas of expertise. Explain your role in the project and why you are well-suited to lead this agrivoltaics initiative. Highlight any previous experience with similar projects or relevant accomplishments.</li><li>• <b>Other Team Members:</b> Briefly describe the other team members, including mission/goals, history, and areas of expertise. Explain each member's roles and what they will contribute to the project. Highlight any previous experience with similar projects or relevant accomplishments.</li></ul>

See [official rules](#) – Section 5.6.2

**(required; will not be made public)**

# Summary PowerPoint Slide

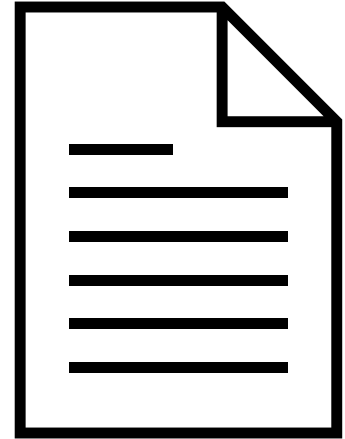
Make a public-facing, one-slide submission summary that introduces your team and your project. Teams may use the [template available on HeroX](#) but are not required to do so. Any text must be readable and should be in at least 14-point font.

<b>Large Animal and Solar System Operations (LASSO) Prize</b>		<b>AMERICAN MADE CHALLENGES</b> <small>U.S. DEPARTMENT OF ENERGY</small>	
<b>Team Name:</b>		<b>Project Location:</b>	
<b>Lead Competitor Name:</b>		<b>Anticipated/Actual Total PV System Capacity that cattle will interact with</b>	
<b>Submission Title:</b>		<b>Track:</b>	Track 1: Standard Track OR Track 2: Operating Track
<b>Number of Cattle:</b>		<i>Insert relevant graphics (logos, maps, diagrams, etc.)</i>	
<b>Team Members and Partners:</b>			
<b>System Description:</b>			
<small>AMERICAN-MADE   U.S. DEPARTMENT OF ENERGY</small>			

(required; will be made public)

# Letters of Support

- Letters of support are required from all team members who are not the lead. The letters of support should briefly describe the member's role in the project, what they will be contributing and how they plan to collaborate with other team members.
- Optional letters of support from outside of the team may include letters of support from other partners, stakeholders, and community members. These letters should detail their commitment to the project, specify their roles and contributions, and express their support for the initiative.



**(required; will not be made public)**



# Evaluation Criteria

The expert review team will consider the below scoring criteria in relation to the entirety of the Phase 1 submission package.

Scoring Criteria Areas:

- **Category 1:** Organizations, Partnerships and Collaboration
- **Category 2:** Design of Existing Project
- **Category 3:** Cattle Integration
- **Category 4:** Plans for Data Collection
- **Category 5:** Benefits, Impact, and Scalability
- **Reviewer Recommendation:** overall assessment of all materials submitted though HeroX

## Category 1—Organizations, Partnerships and Collaboration

A single score on a scale of 0–6 is provided, taking the following statements into consideration:

- **Team:** The lead organization has compelling reasons for participating in the LASSO Prize and has demonstrated relevant experience, which makes them exceptionally well-suited to lead this agrivoltaics initiative. Their previous accomplishments in similar projects underscore their capability and readiness to succeed.
- **Other Team Members:** The project includes a strong and diverse group of partners. The other team members bring complementary resources and expertise. As a group, the team is fully capable of designing and deploying a scalable cattle agrivoltaics system and collecting

See [official rules](#) – Section 5.7.1

# How We Select Winners

- Experts will review each submission individually and assess the team's response to each statement in the five areas described in rules.
- Reviewers will score each category, including the Reviewer Recommendation, with 0–6 points, depending on the degree to which the reviewer agrees that the submission reflects the statements for consideration.
- Each category score will be added together to generate a total score for the submission.
- The total scores from each reviewer will be averaged to produce a final score for the team. This score will inform the judge's (DOE) decisions on prize awards.
- Final determination of the winners by the judge will consider the reviewers' feedback and scores, interviews (if applicable), and the application of program policy factors (such as geographic diversity and size of PV system).

# HeroX Platform Demonstration

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How to find resources and apply to the prize

AMERICAN  
**MADE**  
U.S. DEPARTMENT OF ENERGY

# LASSO HeroX Live Demo



Follow  
the prize  
on HeroX!  
HeroX.com/LASSO

American-Made Challenges

15,360 Share Follow (257)

## Large Animal and Solar System Operations (LASSO) Prize

Supports cattle agrivoltaics projects to explore benefits to ag producers, landowners, and rural communities, and advance solar development.

Energy, Environment & Resources

Stage: Enter Prize: \$8,200,000

SOLVE THIS CHALLENGE

Summary Timeline Updates 1 Forum 4 Teams 257 Entries Resources FAQ

Follow the Prize

Submission Form

Answers to your Questions

Rules and Teaming Resource

# LASSO Prize Power Connector Support:



ADL Ventures will be conducting recruiting, offering office hours, application support, and more for the LASSO Prize.

More information on how to connect with ADL Ventures will be posted to HeroX soon.

# Sign Up Today!

## Become a LASSO Competitor:

- Follow the Prize on [HeroX](#) – Get important updates about the prize
- Read the [Rules](#) – Everything you need to know about participating in the prize
- Form a [Team](#) – Use the Teaming Resource on HeroX
- Attend ADL's Office Hours – Dates will be posted to HeroX
- Submit to Phase 1 – Submission Deadline March 6, 2025 at 5 p.m. ET

Questions?: [LASSO.Prize@nrel.gov](mailto:LASSO.Prize@nrel.gov)



Follow  
the prize  
on HeroX!

[HeroX.com/LASSO](https://HeroX.com/LASSO)

Have a Question?  
Drop it into the Q&A Box!