



# **2024 FARMER Program Guidelines**

Public Workgroup Meeting  
Summer 2024

\*Meeting materials available at <https://www.arb.ca.gov/farmer>

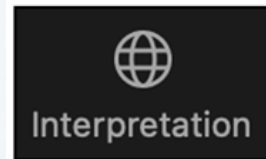


# Welcome! ¡Bienvenidos!

Simultaneous interpretation is being provided – English speakers may need to select English as their language.

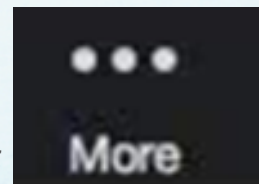
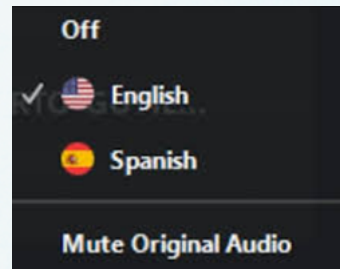
## Accessing Zoom from a computer

- Click the globe icon located at the bottom of the screen
- Choose **English**



## Accessing Zoom from a smart phone

- Click the **3 dots (more)** on the bottom right side of the screen
- Choose **Language Interpretation**
- Choose **English**
- Press **Done** on the top right side of the screen



Interpretación simultánea al español disponible – los hispanohablantes deben seleccionar su idioma.

## Entrando a Zoom por computadora

- Haga clic en el símbolo del globo terráqueo en la parte inferior de la pantalla
- Selecciona **Español**
- Apague el **Audio Original** (para solo escuchar una voz)

## Entrando a Zoom por un teléfono inteligente

- Haga clic en los **3 puntos** encima de la palabra **more o más** en la parte inferior derecha de la pantalla
- Selecciona **Interpretación**
- Selecciona **Español**
- Haga clic en **Done** o **Finalizar** arriba y de lado derecho de la pantalla



# FARMER Program Background

- Received initial appropriation of \$135 million in September 2017 to reduce agricultural sector emissions.
- FARMER Program Guidelines approved in March 2018.
- Funding is administered by local air districts.





# FARMER Program Eligibility

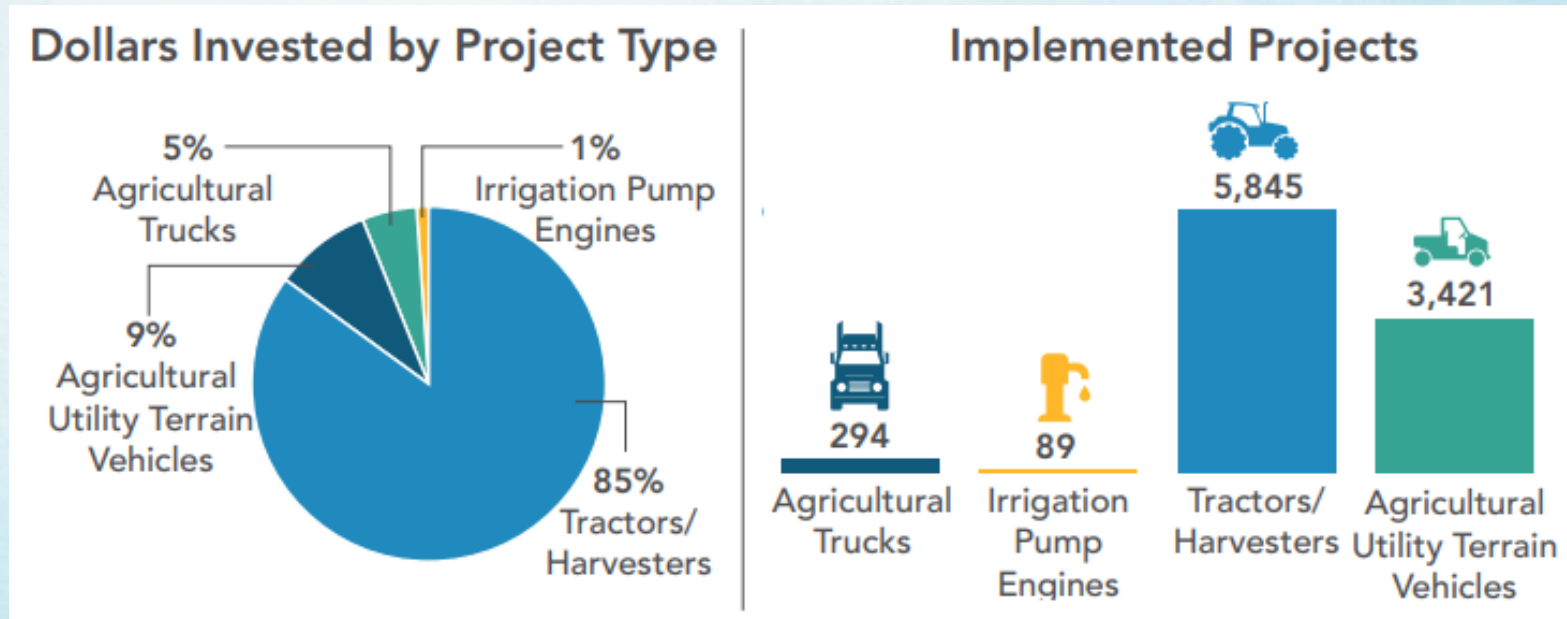


- Eligibility is restricted to agricultural operations.
- Eligible project types include:
  - Off-road agricultural equipment,
  - Heavy-duty on-road trucks,
  - Zero-emission utility terrain vehicles (UTV),
  - Irrigation pumps, and
  - Advanced technology demonstration projects.



# FARMER Program Statistics

- To date, \$760 million has been appropriated to the program statewide.
- The FARMER Program has funded over 9,600 projects, reducing over:
  - 1,500 tons of fine particulate matter
  - 26,600 tons of oxides of nitrogen and
  - 368,000 tons of greenhouse gas emissions.





# FARMER Program Updates

- Develop comprehensive set of guidelines
- Updates to administrative requirements and project criteria
- Updates will add flexibility and aid in district administration
- Update Process:

Milestone	Date
Public Kick-Off	December 2023
Public Workgroup Meetings	Summer 2024
Public Workshop (45 day comment period)	August 2024
Board Hearing	October 2024



# Questions???



Use the Q&A feature to type a question



Use the raised hand function (#2 if calling in by phone)



Please state your name and affiliation before asking a question or making a comment.



# Proposed General Program Changes

- Update “agricultural operations” definition to match source category
- Remove requirement for projects to achieve a minimum of 15% NOx reductions
- Follow Health and Safety Code § 44282.5 for off-road projects:
  - Evaluate on a 10-year project life
  - Allow projects to be funded up to date of compliance
- Minimum 3-year contract term





# Proposed General Program Changes (cont'd)

- Allow refundable deposits
- Remove verified diesel emission control strategies (VDECS or retrofits) as an eligible project category
- Expand used equipment for small producers for all districts
  - District defines "small producers"
  - Tier 0 or 1 to 3 or cleaner
  - Extensive dealer equipment evaluation



# Project Timeline

- Require applicant to take action (e.g., place a purchase order) within one year from contract execution, with extensions allowed at the district's discretion
- Update salvage/destruction deadline to 90 days, with extensions allowed for zero-emission up to six months at the district's discretion (with reasonable justification)





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# Proposed Off-Road Project Changes - 135% Horsepower Cap

- For single replacements, allow 25 hp or 35% increase in horsepower, whichever is greater
- For 2-for-1 projects (or multiples-for-1), use the larger of the two baselines to establish the horsepower cap





# Proposed Off-Road Project Changes - Efficiency

- Include provisions to account for efficiency gains from specialty equipment (e.g., harvesters, sprayers)





# Proposed Off-Road Project Changes - Equivalent Work

- Add flexibility to allow for:  
Tractor + Implement → Specialized Equipment
- Add flexibility to allow the following with documented usage for the baseline:
  - Specialized Equipment → Tractor + Implement, or
  - Single baseline → multiple zero-emission units
- Are there any additional unique project types that should be considered?



# Questions???



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# Proposed Zero-Emission Off-Road Project Changes

- Allow less than 25 horsepower equipment to be replaced with zero-emission, specifically agricultural tractors 20 horsepower or greater
- Increase incentive cap to 85%





# Quantification and Cost-Effectiveness Updates

- Include updated diesel emission factors from CARB's Off-Road Diesel Emission Factor Database
- Update diesel load factors to match the 2021 Agricultural Inventory and 2021 Forestry Inventory
- Considering new cost-effectiveness limits:
  - \$60,000 for combustion replacements
  - \$120,000 for zero-emission replacements



# Example 1: Diesel Tractor Replacement

- Annual Usage: 550 hours, 100% in California
- Baseline: 2003 MY, Tier 2, 90 hp Tractor
- Replacement: 2024 MY, Tier 4 Final, 110 hp Tractor
- Cost: \$90,000
- Project Life: 10 years
- Max Incentive: **\$72,000** or **80%**
  - Current guidelines: same





# Example 2: Zero-Emission Forklift Replacement

- Annual Usage: 1,200 hours, 100% in California
- Baseline: 2014 MY, Propane 55 hp Forklift
- Replacement: 2024 MY, 21 kW Electric Forklift, 6,500 lb. lift capacity
- Cost: \$55,000
- Project Life: 10 years
- Max Incentive: **\$46,750** or **85%**
  - Current guidelines: \$23k (42%)





# Other Guideline Changes

- Off-Road Portable and Stationary Engine Projects
  - Clarify that all Portable and Stationary ATCM-compliant or exempt equipment are eligible for replacement or repower
  - Allow Tier 4 Final irrigation pumps to be replaced with zero-emission
- FARMER Heavy-Duty On-Road Trucks
  - Clarifying that zero-emission trucks are eligible
- Allow for future updates through CARB Executive Officer approval
  - Would require public process



# Questions???



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# Next Steps

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# FARMER Program Contact

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